



City of
Mount Gambier

Infrastructure (Roads) Asset Management Plan

2020/2029

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Document Control



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ABBREVIATIONS

AAAC	Average annual asset consumption
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
IAMP	Infrastructure and asset management plan
IRMP	Infrastructure risk management plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
vph	Vehicles per hour
LTFP	Council's Long Term Financial Plan

1. SUMMARY

A summary of the road assets used to provide this service are:

- Sealed road area of 2,111,638m² (2,348,831m² of road pavement)
- Kerb and Channel length of 453 km
- Constructed footpath area of 308,202m²
- Carpark area of 72,940m²
- Traffic Light Sets at 19 locations
- Approximately 465 drainage bores and associated drainage pipes.

What does it Cost?

The total dollar value of the annual consumption of the road and drainage asset category is \$3.096M (i.e. annual depreciation expense for 2018/19). Council's goal for annual expenditure is to match this value so that no gap exists between the annual depreciation cost and the actual budget expenditure.

Council needs to continue to seek additional funding sources through Government grants to ensure any funding gap is manageable in the long term.

Plans for the Future

Council plans to operate and maintain the road network to achieve the following strategic objectives.

- Ensure the road network is maintained at a safe and functional standard as set out in this Infrastructure and Asset Management Plan.
- Provide for renewed infrastructure and access standards that meet the demands and expectations of the community in a financially sustainable environment.
- Maintain integration and functionality of local roads with state roads to ensure continuity of freight networks.
- Require service standards for newly created infrastructure acquired through land development and residential expansion to be complimentary with existing asset standards.

Quality

Roads assets will be maintained in a reasonably usable condition. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for further details.

Function

Our intent is that a 'fit for purpose' road network is maintained in partnership with other levels of government and stakeholders.

Road asset attributes will be maintained (subject to funding) at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure the key functional objectives are met, i.e.:

- Council will endeavour to provide free flowing and unrestricted travel between destinations and locations to all recognised modes of transport and associated user groups.
- Ensure accidents are minimised and only minor consequences occur from accidents.

The main functional consequence of the road network not being able to cater for free flowing and unrestricted traffic is delays to industry and the local community and this is likely to decrease quality of life and increase the potential for accidents to occur through driver frustration. As a consequence this is likely to impose additional financial and social burdens on the community.

Safety

We inspect all roads regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

The Next Steps

The actions resulting from this Infrastructure and Asset Management Plan are:

- Ensure the road network is regularly inspected and any defects rectified in a timely manner to ensure public safety and to mitigate against public risk.
- To provide for renewal of assets and the creation of new road assets and associated infrastructure in a sustainable manner.
- To plan for growth of the City in a manner that is supported by a fit for purpose road network.

2. INTRODUCTION

2.1 Background

This Infrastructure and Asset Management Plan is designed to:

- Provide responsive management of assets (and services provided from assets);
- Ensure compliance with regulatory requirements;
- Assist in securing funding required to provide agreed levels of service.

The Infrastructure and Asset Management Plan is to be read with the following associated planning documents:

- City of Mount Gambier Community Plan
- City of Mount Gambier Long Term Financial Plan
- Council's Development Plan
- Council's Business Plan and Annual Budget

This Infrastructure and Asset Management Plan covers the entire road network and associated traffic control devices within the City of Mount Gambier including local roads, collector roads and boundary roads. Whilst it references and links to assets owned by both state and federal governments, it does not include these assets in the Plan.

Table 2.1. Assets covered by this Plan - as at 1st July 2018

Asset Category	Dimension	Replacement Value (\$)
Road surface (seal)	2,111,638m ²	\$14,337,185
Road pavement	2,348,831m ²	\$45,739,368
Road sub pavement	266,046m ²	\$916,069
Kerb and channel	452,777m	\$54,347,196
Constructed footpaths	308,202m ²	\$15,520,499
Drainage	465 bores, silt pits & associated pipes	\$7,184,728
Carparks	72,940m ²	\$10,154,228
Traffic Lights	19 sets	\$2,132,718
TOTAL		\$150,331,990

Key stakeholders in the preparation and implementation of this Infrastructure and Asset Management Plan are:

- City of Mount Gambier
- Ratepayers and tenants
- Transport Industry
- District Council of Grant and its community
- Tourism sector
- Business Sector
- State and Federal Government (funding partners and regulators)

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 transfer of assets constructed by developers and others.

Council's goal in managing infrastructure assets is to meet the agreed 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.¹

This Infrastructure and Asset Management Plan is prepared under the direction of Council's strategic objective:

Mount Gambier, a perfectly centred place where people aspire to live, work, visit and invest (City of Mount Gambier Community Plan – The Futures Paper 2016-2020)

Accordingly, this Infrastructure and Asset Management Plan has been prepared in line with Council's Community Plan – The Futures Paper 2016-2020, and the objectives contained within the Plan.

2.3 Plan Framework

Key elements of the Plan are

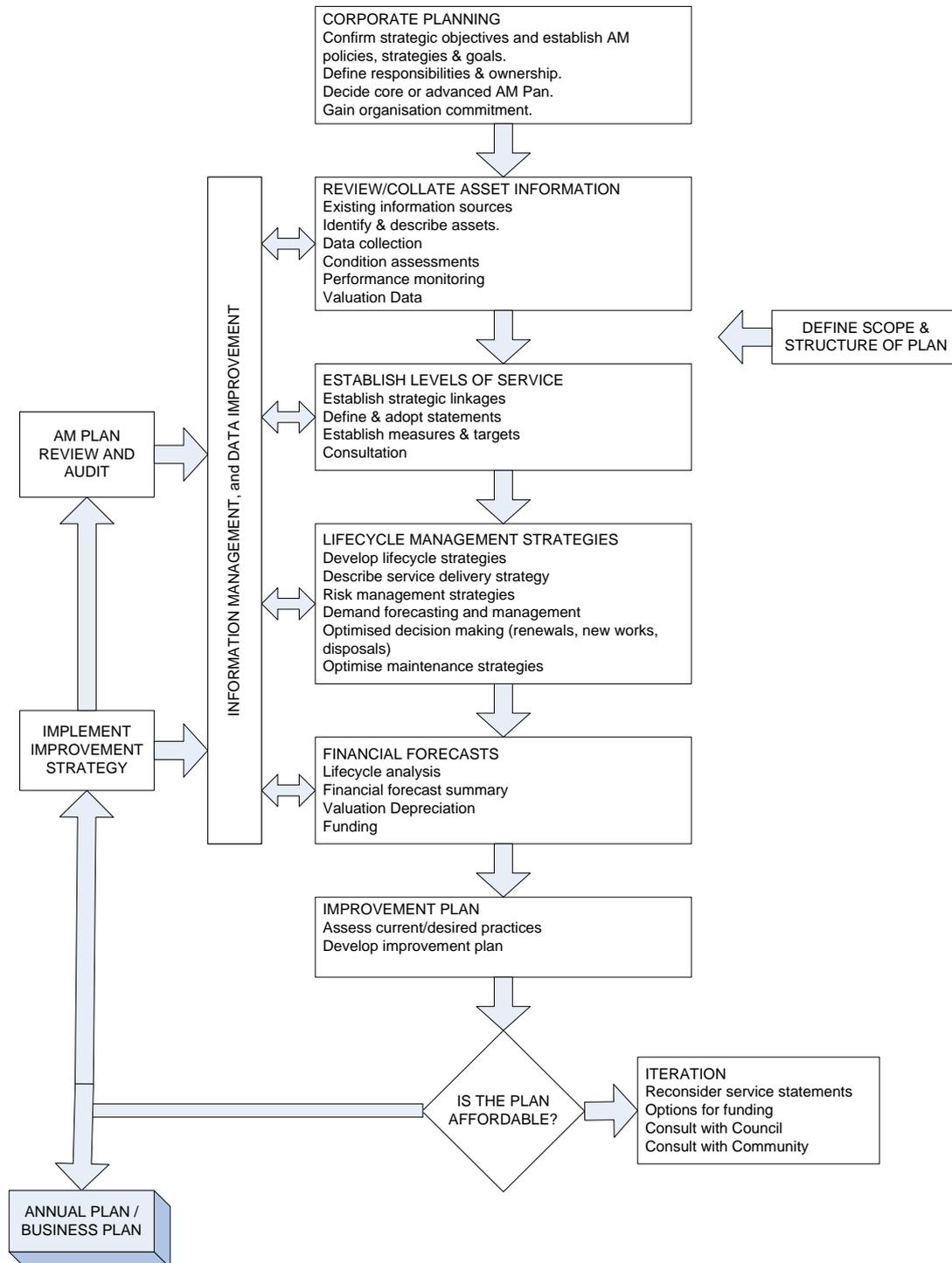
- Levels of service – specifies the services and levels of service to be provided by Council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services.
- 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 Council's objectives.
- Asset management improvement plan.

¹ IIMM 2006 Sec 1.1.3, p 1.3

A road map for preparing an Infrastructure and Asset Management Plan is shown below.

Road Map for preparing an Infrastructure and Asset Management Plan

Source: IIMM Fig 1.5.1, p 1.11



3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council's anecdotal evidence (primarily based on the number of complaints received) suggests that current service levels are seen by the community as acceptable.

3.2 Legislative Requirements

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

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by Infrastructure and Asset Management Plans for sustainable service delivery.
Road Traffic Act	Provides Councils the power to install, maintain, operate, alter or remove traffic control devices on roads under their care and control

3.3 Current Levels of Service

Council has defined service levels in two terms.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, function, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria

Quality
Quantity
Availability
Safety

Technical measures may relate to

Smoothness of roads
Area of parks per resident
Distance from a dwelling to a sealed road
Number of injury accidents

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

Table 3.3. Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality	Provide a smooth ride on a surface that is clearly delineated	Customer service requests	Less than 5 per month per road segment	Less than 5 per month on any one segment
Function	Ensure that the road meets user requirements for travel time and availability	Customer complaints relating to travel time and availability	Less than 2 per month	Less than 2 per month
Safety	Provide safe suitable roads free from hazards	Number of injury accidents	Less than 3 per annum per location	Less than 3 per annum per location
TECHNICAL LEVELS OF SERVICE				
Condition	Carry out routine maintenance on potholes	Number of pothole complaints	Less than 5 per month	Less than 5 per month
Accessibility	Provide unrestricted access to residential, commercial and industrial sectors of the City	Limit property access from road works and maintenance works	Less than 60 minutes for minor maintenance works. Less than 2 days for major reconstruction works	70 minutes for minor works and 2.5 days for major works
Safety	Provide clear safety signage and line marking	Annual defect and condition survey	Less than 5% of signs defective. Less than 5% of line marking not clearly visible	Less than 5% of signs defective 10% of line marking not clearly visible

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including the LGASA Customer Satisfaction survey, residents’ feedback to Councillors and staff, service requests and correspondence. Council has still to quantify all desired levels of service. This will be incorporated in future revisions of this Infrastructure and Asset Management Plan.

4. FUTURE DEMAND

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural and industry 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	26,276 (30 th June 2016)	32,000 people by 2027 ²	Moderate residential growth. Increased traffic on collector roads
Demographics	Ageing population		Increase in aged care accommodation
Climate change	Substantial bicycle network	Significant growth in bicycle network and associated infrastructure	Increase in bike paths, dedicated bus lanes and crossing facilities in road network
	Adequate public transport systems	Increased public transport	

4.2 Changes in Technology

Technology changes are forecast to have an effect on the delivery of services covered by this Plan (eg. road reconstruction methodology), and will also likely improve customer feedback and advice to Council (eg. Web based communication to Council, smart phone technology).

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.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this Infrastructure and Asset Management Plan.

² Referenced from Community and Recreation Hub Feasibility Study

Table 4.3 Demand Management Plan Summary

Service Activity	Demand Management Plan
Traffic control devices (roundabouts, signals)	Revise traffic management plan every 5 years (major revision), and annual update
Improve boundary roads and collector roads	Continue with boundary roads program Upgrade designated collector roads

4.4 New Assets from Growth

Where new assets are required for growth, these will be constructed by developers and donated to Council or constructed / acquired by Council. The growth financial model forecasts asset values acquired from developers or constructed by Council over the next 20 years.

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 and also capital renewal costs for assets required beyond their useful life. These future costs are identified and considered in developing forecasts of future operating 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 Infrastructure and Asset Management Plan are shown below:

- Road sub pavement
- Road surface (seal)
- Constructed footpaths / nature strips
- Traffic control devices
- Road pavement
- Kerb and channel
- Drainage
- Carparks

Generally the road assets mentioned above are in good condition although asset ages vary considerably across the City. Council has limited data on the age profile of its asset stock but does have up to date condition data for most road asset categories. Council uses the condition data to set future works programs and also to prepare risk control strategies.

Note: Comprehensive condition or age data currently does not exist for Council's drainage assets but is currently being developed.

5.1.2 Asset Capacity and Performance

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

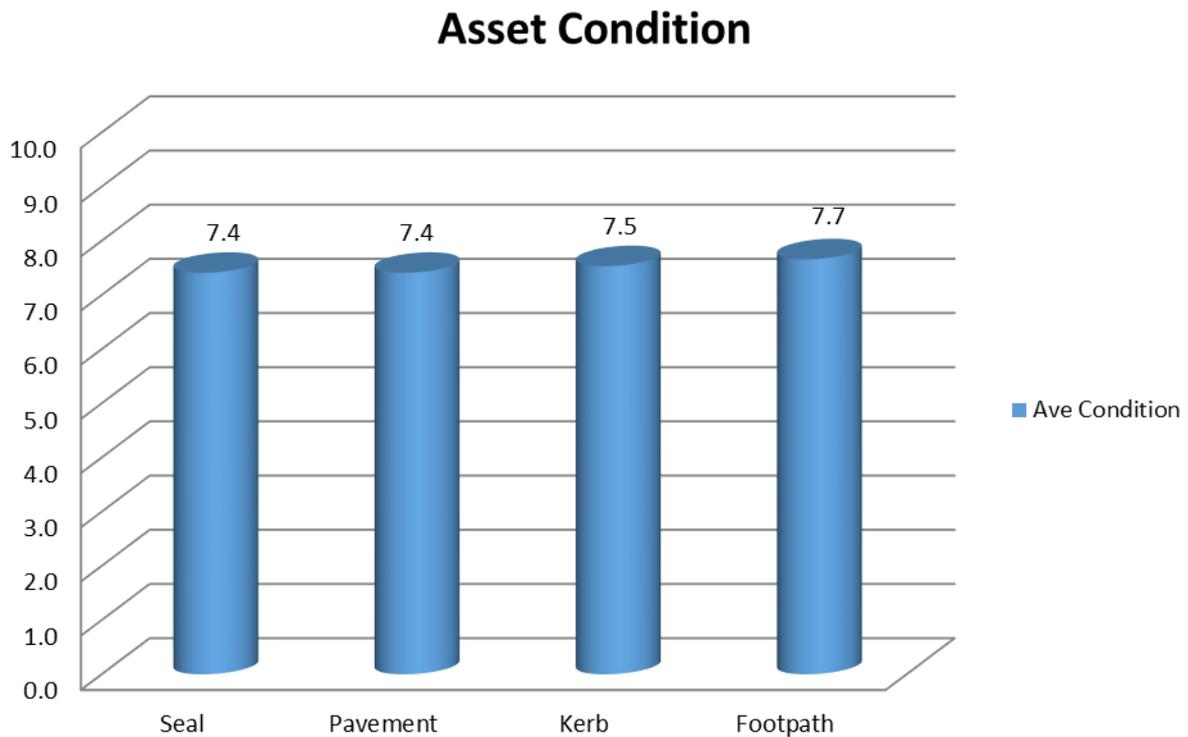
5.1.3 Asset Condition

The condition profile of Council's road assets is shown below.

Condition is measured using a 0 – 10 rating system.³

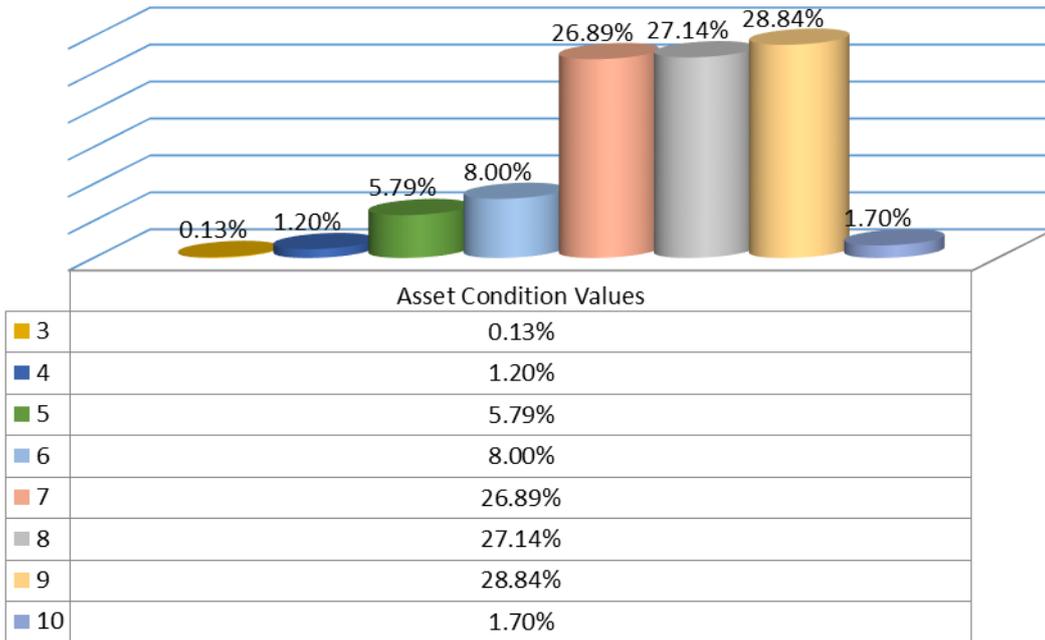
Rating	Description of Condition
10	Excellent condition: Only planned maintenance required. New asset.
8	Very good: Minor maintenance required plus planned maintenance.
6	Good: Significant maintenance required.
5	Average condition. Significant maintenance required.
4	Failing: Significant renewal/upgrade required (start of rapid deterioration).
<2	Poor: Unserviceable. Asset renewal or disposal required.

Fig 3. Asset Condition Profiles

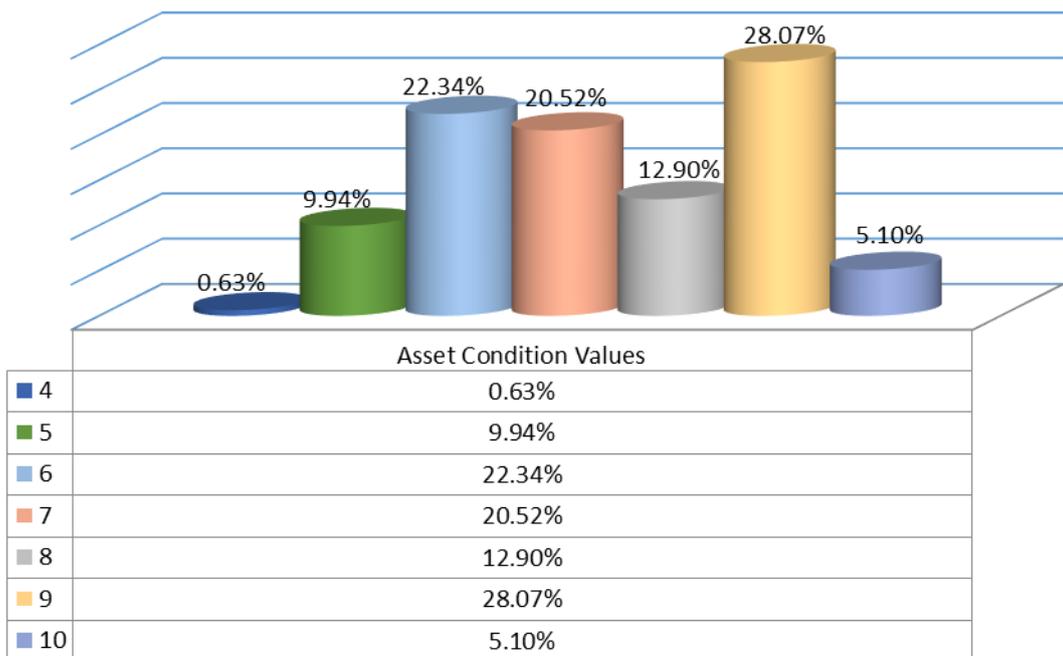


³ IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

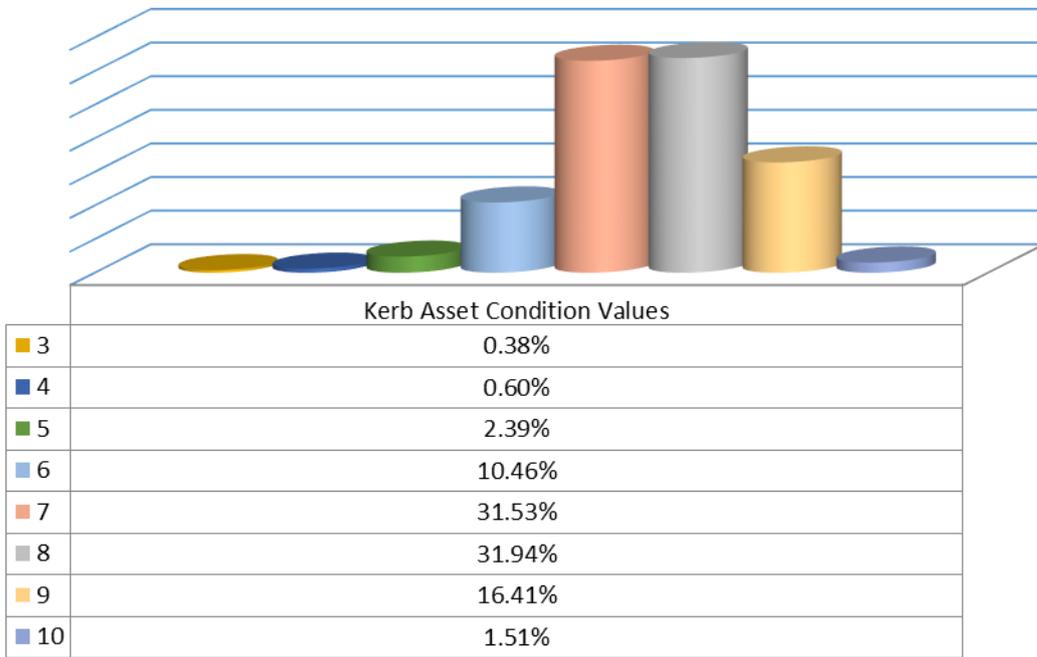
Pavement Assets by Condition



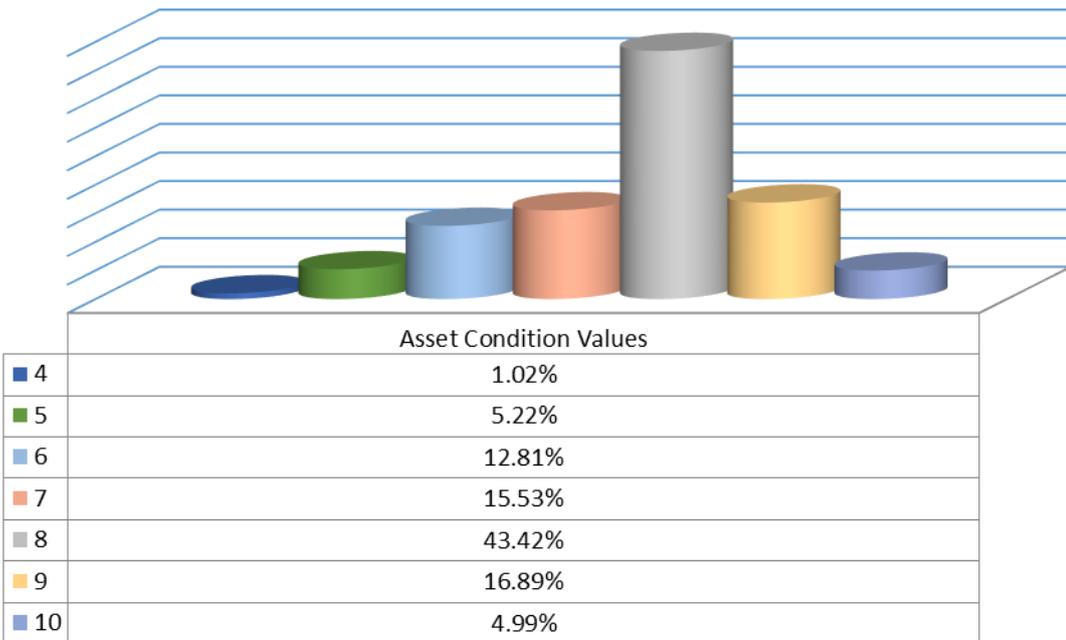
Seal Assets by Condition



Kerb Assets by Condition



Footpath Assets by Condition



5.1.4 Asset Valuations

The value of assets as at 1st July 2018 covered by this Infrastructure and Asset Management Plan is summarised below.

• Current Replacement Cost	\$150,331,990
• Net Fair Value	\$114,559,761
• Annual Depreciation	\$3,095,497
• Accumulated Depreciation	\$35,772,229

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

Asset Consumption	2.11%	<i>(\$3,172,884 ÷ \$150,331,990 x 100)</i>
Asset Renewal	2.10%	<i>(\$3,171,200 ÷ \$150,331,990 x 100)</i>
Annual Upgrade/expansion	0.50%	<i>(assets account for land transferred as a result of land divisions and also note the general 'slowing down' of the economy and very low levels of residential development in Mount Gambier in the past 3 years.)</i>

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets identifies critical risks to Council. 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.

Council's risk assessment for roads did not uncover any risks in either the high or very high risk category with only 6 out of 11 identified risks as being in the medium risk category. The remaining 5 risks were considered low. (Refer to Council's Risk Management Plan for details)

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. This function is essential to the long term sustainability of the network and is one of several maintenance functions that should receive priority in Council's annual budget.

5.3.1 Maintenance Plan

Maintenance includes reactive, planned and cyclic 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.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including road resealing, repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold.

Current maintenance expenditure levels are considered to be marginally below adequate to maintain current service levels. Future maintenance and asset renewal expenditure is expected to grow at a rate of 2.5% per annum. Future revision of this Infrastructure and Asset Management Plan will include linking required maintenance expenditures with required service levels as a means to further manage assets in a sustainable manner.

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

5.3.2 Standards and Specifications

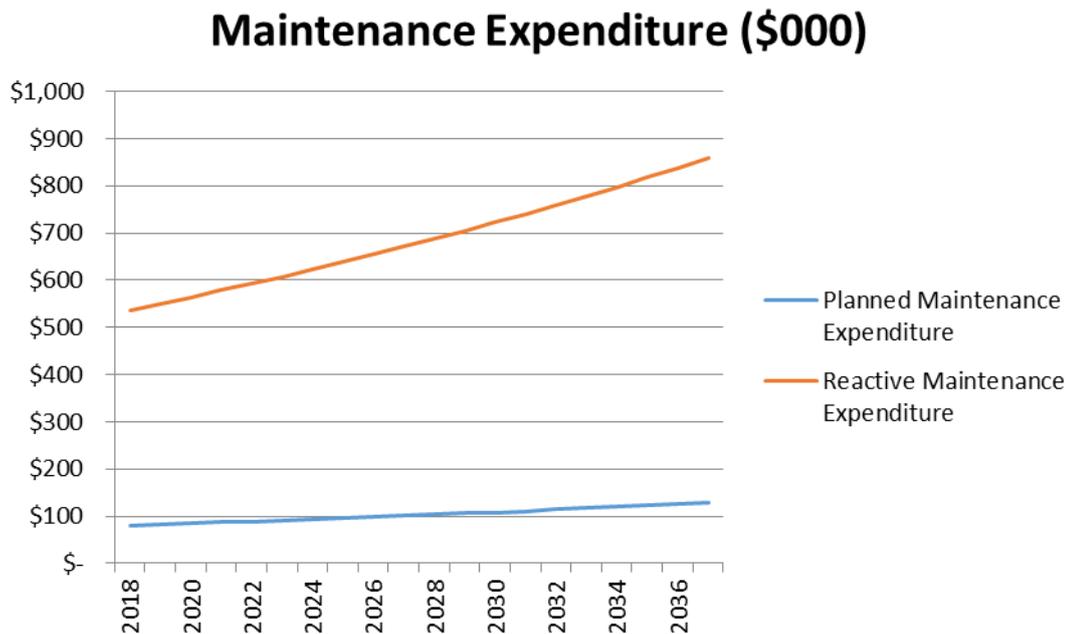
Maintenance work is carried out in accordance with the following Standards and Specifications:

- Current Australian and Industry Standards
- Council Policy - Road Pavement – Excavation and Reinstatement of (revised 2017)
- Council Policy - Land Division (revised 2018)
- Civil Contractors Federation Guidelines
- Work Health Safety Act and Regulations

5.3.3 Summary of Future Maintenance Expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Fig 4. Note that all costs are shown in 2019 dollar values.

Fig 4. Maintenance Expenditure



Deferred maintenance, i.e. 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 Council's operating budget. 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 estimates of remaining life obtained from the asset register through the 'Renewal Model'. Candidate proposals are inspected to verify accuracy of remaining life estimate 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 based on asset condition and is then adopted ultimately by Council.

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 footpath asphalt overlay versus complete reconstruction of a bitumen footpath. This method provides a better level of service than currently available at a smaller renewal cost than complete reconstruction, and also provides an extended asset life which matches current service levels.

5.4.2 Renewal Standards

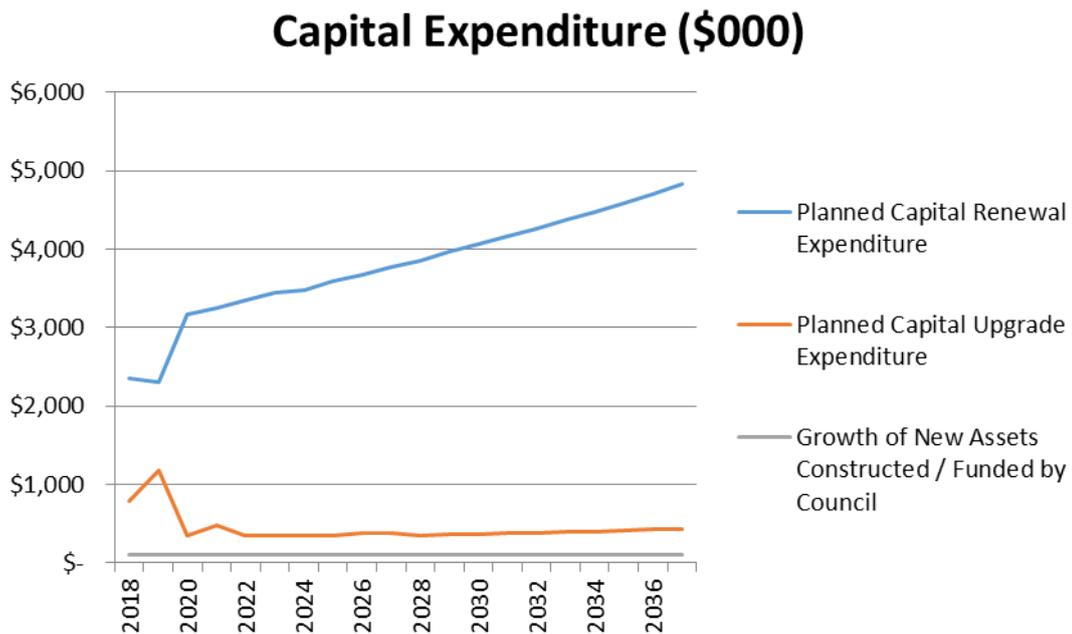
Renewal work is carried out in accordance with the following Standards and Specifications.

- Current Australian and Industry Standards
- Council’s Road Pavement – Excavation and Reinstatement of
- Council’s Land Division Policy
- Civil Contractors Federation Guidelines
- Work Health Safety Act and Regulations

5.4.3 Summary of Future Renewal Expenditure

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

Fig 5. Projected Capital Expenditure



Deferred renewal, i.e. 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 Council’s capital works program and grants where available. This is further discussed in Section 6.2.

Note: The flat line trend for “Growth of new assets” depicted by the grey line above, means that Council does not currently have enough detailed information about future costs associated with new assets. Over time it is expected that as more detailed information becomes available, this line will change to reflect these costs more accurately.

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 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. Council ultimately makes the decision on priority ranking of new assets based on this information.

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 Future Upgrade / New Assets Expenditure

New assets and services are to be funded from Council's capital works program and grants where available. This is further discussed in Section 6.2.

5.6 Disposal Plan

Currently there are no assets in the road category that are listed for disposal.

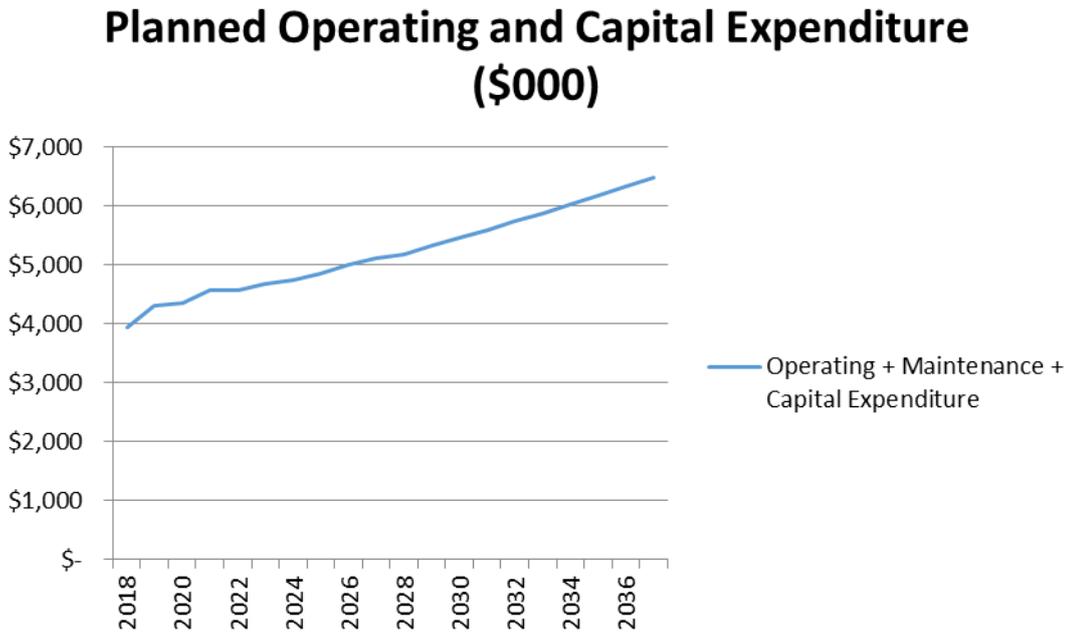
6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this Infrastructure and 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 6 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 6. Planned Operating and Capital Expenditure



Note that all costs are shown in 2019 dollar values with incremental CPI forecasts.

6.1.1 Sustainability of Service Delivery

There are two 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 and medium term costs over the 10 year financial planning period.

6.1.2 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 maintenance and asset consumption (depreciation expense). The annual life cycle cost for the services covered in this Infrastructure and Asset Management Plan is \$3,095,497.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan (2020) is \$3,171,200.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this Infrastructure and Asset Management Plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

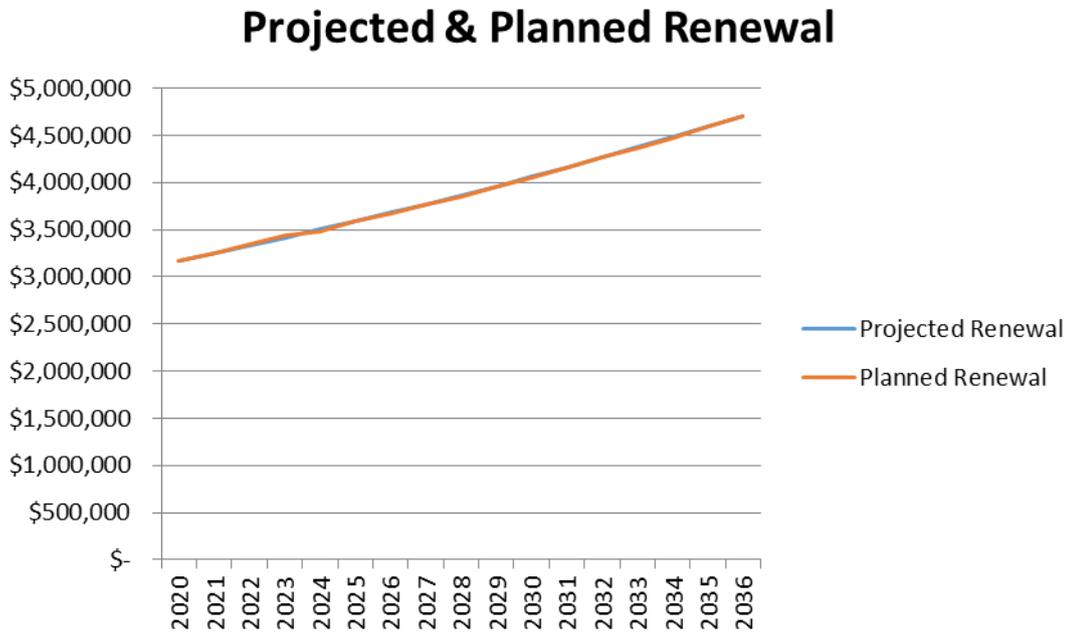
6.1.3 Medium term – 10 Year Financial Planning Period

This Infrastructure and Asset Management Plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

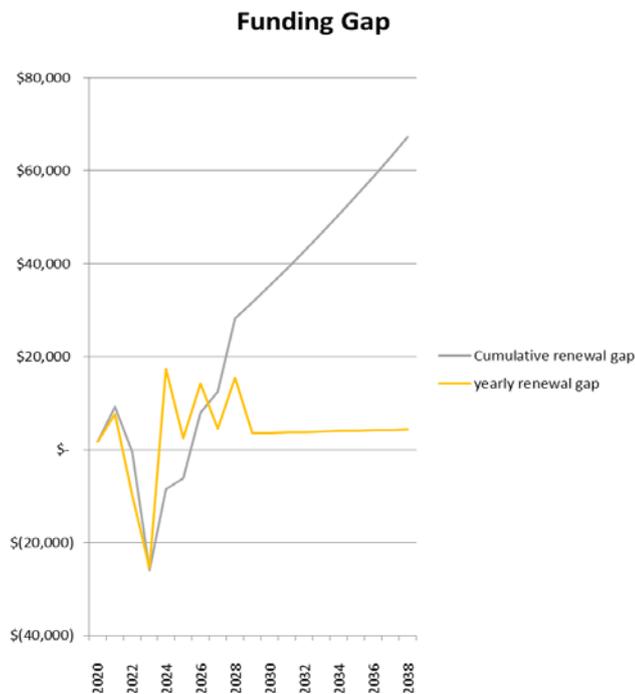
This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core Infrastructure and Asset Management Plan, a gap is generally due to increasing asset renewals or underfunding of capital renewal programs.

Fig 7 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Fig 7 Table 6.1.1 shows the annual and cumulative funding gap between projected and planned renewals.

Fig 7. Projected and Planned Renewals and Expenditure Gap



This chart shows the difference between Projected funding (funding required to maintain assets to agreed service levels) and Planned funding (actual funding from Council budget and forward works programs). Ideally, there should be no funding gap between these two lines.



This chart shows the difference (in \$'s) between Projected and Planned funding. This difference is referred to as the “Yearly renewal gap”. The cumulative renewal gap is the accumulation of yearly renewal gaps and is equal to the total amount of shortfall in funding at any point in time.

Table 6.1.1 Projected and Planned Renewals and Expenditure Gap

Year	Projected Renewals	Planned Renewals	Renewal Funding Gap	Cumulative Gap
2020	\$3,172,884	\$3,171,200	\$1,684	\$1,684
2021	\$3,252,207	\$3,244,600	\$7,607	\$9,291
2022	\$3,333,512	\$3,343,300	-\$9,788	-\$497
2023	\$3,416,849	\$3,442,300	-\$25,451	-\$25,948
2024	\$3,502,271	\$3,484,900	\$17,371	-\$8,577
2025	\$3,589,827	\$3,587,400	\$2,427	-\$6,150
2026	\$3,679,573	\$3,665,400	\$14,173	\$8,024
2027	\$3,771,563	\$3,767,000	\$4,563	\$12,586
2028	\$3,865,852	\$3,850,300	\$15,552	\$28,138
2029	\$3,962,498	\$3,959,000	\$3,498	\$31,636
2030	\$4,061,560	\$4,057,975	\$3,585	\$35,221
2031	\$4,163,099	\$4,159,424	\$3,675	\$38,896
2032	\$4,267,177	\$4,263,410	\$3,767	\$42,663
2033	\$4,373,856	\$4,369,995	\$3,861	\$46,524
2034	\$4,483,203	\$4,479,245	\$3,958	\$50,481
2035	\$4,595,283	\$4,591,226	\$4,056	\$54,538
2036	\$4,710,165	\$4,706,007	\$4,158	\$58,695
2037	\$4,827,919	\$4,823,657	\$4,262	\$62,957
2038	\$4,948,617	\$4,944,248	\$4,368	\$67,326

Average Funding Gap = \$3,453

Note: Projected renewals (based on assumed inflation figures) assumed to increase in value by 2.5% per annum until 2036

Planned renewals (based on assumed Budget figures) assumed to increase by 2.5%

The cumulative gap has been projected from \$0 from 2020. Long term cumulative gap projections will be addressed in future iterations of the IAMP

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 renewal expenditure and actual (planned) expenditure indicates that further work is required to manage required service levels and future planned expenditure funding needs to eliminate any funding gap.

Council will manage the ‘gap’ by developing this Infrastructure and Asset Management Plan to provide guidance on future service levels and resources required to provide these services, and to ensure that the gap does not grow to an uncontrollable level.

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets. The funding strategy is detailed in the Council's Long Term Financial Plan.

Achieving the financial strategy will require a commitment from Council in further budget considerations to make up the gap between projected and planned expenditure. As can be seen in Table 6.1 and the chart of Projected Renewals V's Planned Renewals, if this gap isn't managed then over a 20 year period there is likely to be a cumulative shortfall in funds of \$67,326. This table can be used to determine what effect future budget adjustments are likely to have on long term asset sustainability and also what injection of funds will be required to close the gap.

Council is relying on external funding sources such as Special Local Roads programs and Roads to Recovery programs to maintain this gap to a manageable level, otherwise there will be increased pressure on rate revenue to maintain asset stocks at current service levels.

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. Depreciation expense values are forecast in line with asset values based on asset condition depreciation and will be adjusted in accordance with asset revaluations which will occur from time to time taking into account condition assessments and additional asset age data.

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. However, it is expected that limited asset disposal will occur in the road asset category.

6.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Infrastructure and Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values. 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 Infrastructure and Asset Management Plan are:

- Asset condition and age has been determined based on engineering knowledge, best available data and previous asset deterioration rates. Some asset categories such as road seals have more accurate data available than other asset categories such as drainage infrastructure. However, current asset age can be reasonably determined by reverse engineering from total asset life and current asset condition. Example, a road seal is rated as being in a condition of 7/10, and has a total life of say 15 years. Therefore the asset still has 70% of its useful life remaining and 30% of its life has been used. The current asset age is therefore 30% of 15 years, i.e. 5 years old.
- Straight line depreciation of asset condition has been assumed but in reality the asset condition tends to drop off significantly towards the end of the asset life. This sharp drop off will impact on funding requirements needed to maintain asset stock in a reasonable condition and therefore Council's approach is to renew assets before this sharp drop in asset condition. i.e. Council intends to continue with its asset renewal plans before assets reach the end of their serviceable life. This Plan includes a residual value of the unit, being set out at a uniform 10% of the replacement value. This assumption reflects that a road asset (albeit in poor condition) is still useful.
- This Infrastructure and Asset Management Plan was put together based on the information at hand at the time of preparing the Plan. As asset information is updated and more accurate information becomes available, the Infrastructure and Asset Management Plan will become more accurate.

However, Council has very detailed asset information on most asset categories covered under this Plan and is therefore confident that this Plan accurately reflects Council's current asset position.

- It is assumed at this point in time that there will be minimal effect to asset service and delivery from future technological changes.
- With respect to Table 6.1.1 projected renewals are assumed to increase in value at a rate of 2.5% per annum. Any variation from 2.5% can affect the cumulative gap significantly (the data presented in this report is very sensitive to this assumption).

Accuracy of future financial forecasts may be improved in future revisions of this Infrastructure and Asset Management Plan by the following actions:

- More accurate data on actual asset life for all asset categories.
- Full cost attribution on future works programs through more sophisticated accounting measures.
- Improved data collection and condition assessment of assets and recording of this data in AIM program.



Road and Drainage Infrastructure and Asset Management Plan

First year of expenditure projections 2018 (yr ending 30 June 2018)

Road Asset values as at 1st July 2018

Current replacement cost	\$150,332 (000)
Net Fair Value	\$114,560 (000)
Annual depreciation expense	\$3,096 (000)

Calc CRC from Asset Register
 \$0 (000)
 This is a check for you.

Operations and Maintenance Costs from New Assets

Additional operations costs	0.05%
Additional maintenance	0.41%
Additional depreciation	2.06%

% of asset value	0.05%
	0.41%
	2.06%

Existing %ages calculated from data in worksheet	0.05%
	0.41%
	2.06%

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

20 Year Expenditure Projections Note: Enter all values in current 2019 values

Year ending June		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
		\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$001
Operations																						
Management	2.5%	\$63.3	\$64.9	\$66.5	\$68.2	\$69.9	\$71.6	\$73.4	\$75.2	\$77.1	\$79.1	\$81.0	\$83.1	\$85.1	\$87.3	\$89.4	\$91.7	\$94.0	\$96.3	\$98.7	\$101.2	\$103.7
AM systems	2.5%	\$13.5	\$13.8	\$14.2	\$14.5	\$14.9	\$15.3	\$15.7	\$16.0	\$16.4	\$16.9	\$17.3	\$17.7	\$18.2	\$18.6	\$19.1	\$19.6	\$20.0	\$20.5	\$21.1	\$21.6	\$22.1
Total operations		\$78.8	\$78.7	\$80.7	\$82.7	\$84.8	\$86.9	\$89.1	\$91.3	\$93.6	\$95.9	\$98.3	\$100.8	\$103.3	\$105.9	\$108.5	\$111.2	\$114.0	\$116.9	\$119.8	\$122.8	\$125.8
Maintenance																						
Reactive maintenance	2.5%	\$537.1	\$550.5	\$564.3	\$578.4	\$592.9	\$607.7	\$622.9	\$638.4	\$654.4	\$670.8	\$687.5	\$704.7	\$722.3	\$740.4	\$758.9	\$777.9	\$797.3	\$817.3	\$837.7	\$858.6	\$880.1
Planned maintenance	2.5%	\$80.7	\$82.7	\$84.8	\$86.9	\$89.1	\$91.3	\$93.6	\$95.9	\$98.3	\$100.8	\$103.3	\$105.9	\$108.5	\$111.2	\$114.0	\$116.9	\$119.8	\$122.8	\$125.9	\$129.0	\$132.2
Total maintenance		\$617.8	\$633.2	\$649.1	\$665.3	\$681.9	\$699.0	\$716.5	\$734.4	\$752.7	\$771.5	\$790.8	\$810.6	\$830.9	\$851.6	\$872.9	\$894.8	\$917.1	\$940.1	\$963.6	\$987.6	\$1,012.3
Capital																						
Planned Renewal	2.5%	\$2,353.0	\$2,308.0	\$3,171.2	\$3,744.6	\$3,343.3	\$3,442.3	\$3,484.9	\$3,587.4	\$3,665.4	\$3,767.0	\$3,850.3	\$3,959.0	\$4,058.0	\$4,159.4	\$4,263.4	\$4,370.0	\$4,479.2	\$4,591.2	\$4,706.0	\$4,823.7	\$4,944.2
Planned New	2.5%	\$787.0	\$1,187.0	\$355.4	\$485.2	\$354.4	\$346.1	\$356.1	\$345.4	\$380.0	\$384.9	\$344.9	\$358.6	\$367.6	\$376.8	\$386.2	\$395.8	\$405.7	\$415.9	\$426.3	\$436.9	\$447.8
Growth Assets Const/Funded by Council		\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$100.0	\$101.0
Total Planned Upgrade/New		\$3,240.0	\$3,595.0	\$3,626.6	\$3,829.8	\$3,797.7	\$3,888.4	\$3,941.0	\$4,032.8	\$4,145.4	\$4,251.9	\$4,295.2	\$4,417.6	\$4,525.5	\$4,636.2	\$4,749.6	\$4,865.8	\$4,985.0	\$5,107.1	\$5,232.3	\$5,360.6	\$5,493.1
		\$3,936.6	\$4,307.0	\$4,356.4	\$4,577.8	\$4,564.4	\$4,674.3	\$4,746.5	\$4,858.5	\$4,991.7	\$5,119.4	\$5,184.3	\$5,329.0	\$5,459.7	\$5,593.7	\$5,731.0	\$5,871.8	\$6,016.1	\$6,164.0	\$6,315.6	\$6,471.0	\$6,631.3
Planned Disposals		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

PLAN IMPROVEMENT AND MONITORING

1. Performance Measures

The effectiveness of the Infrastructure and Asset Management Plan can be measured in the following ways:

- The degree to which the required cashflows identified in this Infrastructure and Asset Management Plan are incorporated into Council’s LTFP and Community Plan;
- The degree to which 1-10 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the Infrastructure and Asset Management Plan.

2. Improvement Plan

The asset management improvement plan generated from this Infrastructure and Asset Management Plan is shown in Table 8.2.

Table 8.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Detailed investigation / design on major road work projects leading to higher quality & efficiencies	Engineering Manager	Time	
2.	Increase hotmix overlay programs for footpaths and roads to extend useful life	Engineering Manager	Budget allocation	Ongoing
3.	Improved maintenance practices to increase efficiencies	Engineering Manager	Time	Ongoing
4.	Replacement of small footpath pavers to large format pavers to reduce trip hazards	Engineering Manager	Budget allocation	Ongoing
5.	Improved long term financial planning and forecasting	Council	Time	Ongoing

3. Monitoring and Review Procedures

This Infrastructure and Asset Management Plan will be reviewed during annual budget preparation and amended to recognise any 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 within 2 years of each Council election.

REFERENCES

City of Mount Gambier Community Plan – The Futures Paper 2016-2020

City of Mount Gambier Annual Report and Budget

DVC, 2006, 'Asset Investment Guidelines', 'Glossary', Department for Victorian Communities, Local Government Victoria, Melbourne

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

APPENDICES

Appendix A Maintenance Response Levels of Service

LEVELS OF SERVICE

APPENDIX A

The following table outlines standard levels of service for all council assets. Refer to Infrastructure and Asset Management Plan for information of class specific exceptions, how well the assets are performing and how Target Performance will be sought.

Key Performance Indicator	Level of Service	Performance Measurement Process	Target Performance
Community Utility			
Legislative Compliance	to ensure compliance with relevant acts and legislative requirements	audit and review of compliance requirements	full compliance
Safety	to provide safe access and amenity	audit and review of compliance requirements	full compliance
Customer Satisfaction	to provide assets that meet customer requirements and expectations in relation to accessibility, form and function	conduct customer survey in relation to asset provision	customers to provide an average satisfaction level of good to excellent (greater than 7 on scale 0-10)
Operating or Technical			
Condition	to provide the asset base in a condition that is safe, aesthetic, fit for purpose and meets customer expectations	to complete city wide progressive condition audit and risk assessment audit every two years	90% of assets to have a condition rating of fair to excellent
Responsiveness	to respond to customer requests consistent with corporate standards and service agreements	periodic reports on customer request turn around times and customer satisfaction feedback forms level of overall customer requests monitored	90% of customer requests to be processed within the agreed timeframes 10% reduction in reactive customer requests per annum
Performance	to ensure the assets perform cost effectively and provide adequate service to the community	performance analysis level of service reviews and audits	individual asset groups to meet identified needs
Design and Capacity	level to provide assets that meet required service levels and standards, design standards and specifications	endorsed service standards and specifications for the building and maintenance of assets	100% compliance
Cost Effectiveness	to provide and maintain the assets according to best value over the lifecycle while meeting Council objectives	lifecycle cost in conjunction with intervention and deterioration modelling	reduction of lifecycle costs to equivalent of benchmarked best practice

City of
Mount Gambier



10 Watson Terrace (PO Box 56)
Mount Gambier SA 5290

Phone 08 8721 2555

Email city@mountgambier.sa.gov.au

www.mountgambier.sa.gov.au