

Lockhart Shire Council



Transport

Asset Management Plan

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1. EXECUTIVE SUMMARY

Context

Lockhart Shire Council is located 62km south west of Wagga Wagga and 105km north of Albury. The population has declined from 3,397 people in the 2001 census to 2,998 in 2011 and is forecast to remain stable over the next 20 years.

Our Shire covers an area of 2,895km² and includes the townships of Lockhart, The Rock, Yerong Creek, Pleasant Hills and Milbrulong.

The major issues facing the area include:

- Business retention and attraction.
- Ageing population.
- Retaining young people in the area.
- Water security.
- Environmental impacts and uncertainty.
- Sustainability of clubs, community groups and committees.
- Protection of buildings and assets.
- Maintaining community infrastructure.
- Provision of aged, health and medical services.
- Attracting funding for community priorities.

The provision and maintenance of Council's assets is an important component to the needs of the community. Many of the Council's roads have been in existence for many years and maintaining services from ageing assets is a challenge for many Councils.

This plan focuses on the needs, challenges and risks attributed to the Transport assets for which Lockhart Shire Council is responsible for.

The Transport Portfolio

The Transport assets are categorised as follows:

- Bridges
- Culverts & Causeways
- Footpaths
- Kerb & Gutter
- Road pavements and surfaces
- Street Furniture and Streetscapes
- Bulk Earthworks
- Stormwater & flood mitigation

These infrastructure assets have a depreciated replacement value (written down value) of \$172M and a current replacement cost of \$201M as reported at 30 June 2015.

The Aim

The aim of this plan is to forecast the timing and cost to replace existing assets and their components over a 20-year planning period commencing in the 2014/15 financial year. This is to ensure lifecycle costs are kept to a minimum and service levels are provided at an acceptable and sustainable level. In addition, it is important that any future upgrades and provision of new infrastructure is duly considered in respect to impacts on service levels, resources, finances and risk.

It is these impacts that need to be assessed as part of this plan and where the risk is considered high, due processes and control measures are employed to ensure exposure is accepted and/or minimised.

Also considered is the impacts of wet winter/flooding in 2016 as well as Flood Mitigation measures to be constructed in Lockhart and The Rock.

The Approach

For Council assets, three modelling scenarios have been considered when developing these forecasts.

Scenario 1 projects future renewal timing and costs using the acquisition year (or date of last renewal) and useful life from Council's asset register. This is an important aspect as it communicates what is being stated in Council's Financial Statements reflecting the state of the assets and remaining service potential. Instances can occur where remaining lives can be under and/or over stated which can impact valuations and subsequent depreciation allocated to the Operating Statement.

Scenario 2 is aimed at sustaining existing assets and services at current levels over the long term whilst delivering a timely program of improvements to meet the targets set out in the Strategic Plan. The needs are based on technical knowledge and data plus outputs from existing systems and processes. This is the best available measure of renewal need at the present time and improvements are underway to increase the confidence in these forecasts.

Scenario 3 balances the operating, maintenance and capital renewal and upgrade/new expenditure projections identified in Scenario 2 with the available funds in the Long-term Financial Plan (LTFP) and discusses the likely service implications and risks.

The difference between Scenario 2 and 3 represents "what we can't do". This enables a discussion about the

'gap' in service delivery and will lead to a more informed discussion about what are achievable and acceptable service levels, while giving a focus on managing risk. In time, with increased knowledge of the asset stock and future needs Council will be in a more effective position to communicate these risks to the community.

What hasn't been considered in these scenarios is works currently unfunded being road restoration following wet winter/flooding in 2016 as well as construction of proposed flood mitigation measures in Lockhart and the Rock.

The Findings

Results from Scenario 1 indicate we are under servicing our assets according to the asset register (refer Figure 5.1) however this position does not reflect current knowledge, performance and customer feedback on the assets and the service they provide.

This finding suggests the renewal projections forecasted from the Asset Register (i.e. useful lives) require improvement to align with the actual needs and services being delivered. This is an area of concern as the amount of depreciation attributed to the Operating Statement may not be reflective of the actual position and will need further investigation.

1. There is an understatement of useful lives for some assets. The asset register indicate assets to the value of approximately \$14.60M have passed their designated required renewal date. This is shown in figure 5.1.
2. Consequently, the forward projection of depreciation cannot be used as a reliable measure of asset consumption because it excludes the material amount of road assets that have been fully depreciated. (i.e. representing approximately 7.2% of asset value)

Scenario 2 determined \$54.78M is required to sustain service levels at current levels and deliver priority projects for the next 10 years as per the Community Strategic Plan. These long-term estimates exceed the 10 year LTFF by \$3.09M. Subsequently, ongoing if not improved monitoring of ageing and significant assets is crucial to ensure services can be sustained and risk of asset 'failure' is minimised.

Scenario 3 balances the needs with the 10-year Long-term Financial Plan. At Lockhart Shire, this means the possible reduction of service levels in some areas. The timing is uncertain at this stage however given the \$3.09M shortfall over the next 10 years it is possible

maintenance grading, gravel resheeting and/or resealing frequencies will need to change within the next 10 years to match the LTFF.

This shortfall could be regarded as the estimated cost to bring existing assets to a satisfactory standard however a risk assessment suggests council is sustainable provided control measures are implemented as per the risk management plan.

Recognising there is limited condition, function and capacity reporting on the existing asset stock an increased investment in the monitoring and reporting of the assets performance will enable a more valued decision support mechanism than is currently offered and at the same time ensure risk is being duly managed.

Overall, transport assets are performing well based on best available information. There is steady improvement in service levels, assets are presently being replaced at the optimum time in their lifecycle and risk management practices are sound. In saying this, Council's road network was severely impacted by the wet winter/floods in 2016, with estimated damage cost of \$2.4m. Council is currently working on funding streams to undertake restoration works.

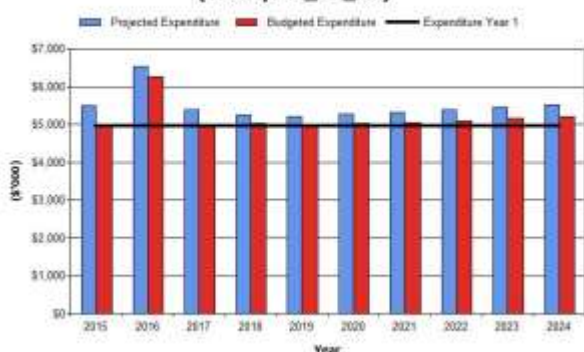
In addition, flood mitigation measures are estimated to cost \$3.46m to protect both Lockhart and The Rock. Council will be able to apply for grant funding through OEH programs, however it will still cost Council in the order of \$0.93m to construct the flood mitigation measures.

What does it Cost?

The projected outlays necessary to sustain current service levels (includes operations, maintenance, renewal and upgrade of existing assets) over the 10 year planning period is \$54.78M or \$5,478,000 on average per year.

Estimated available funding for this period is \$51.69M or \$5,169,000 on average per year which is 94% of the cost to provide the service. This is a funding shortfall of \$309,000 on average per year. The projected expenditure required to provide services compared with planned expenditure currently included in the Long Term Financial Plan is shown in the graph below.

Lockhart SC - Projected and Budget Expenditure for (Transport_S2_V2)



Projected expenditure to sustain current service levels against the budgeted LTFP.

What we will do

We plan to provide Transport services for the following:

- Operation, maintenance, renewal and upgrade of road assets to meet service levels set in annual budgets.
- Sustain a \$17.14M operational budget over the 10-year planning period.
- Sustain a \$19.29M renewal program over the 10-year planning period.
- Sustain a \$15.26M upgrade program over the 10-year planning period.
- \$3.48M expenditure on flood mitigation measures for Lockhart and The Rock.
- Restore \$2.4M damage to road network following 2016 wet winter/floods.
- We will assess remaining life of our existing assets on a regular basis and align with up to date condition data of critical assets as a priority.

What we cannot do

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

- An estimated \$2.513M funding shortfall in priority renewals over the next 10 years, and
- An estimated \$572,000 funding shortfall in priority operations and maintenance activities over the next 10 years due to the acquisition of new assets.
- An estimated \$1M funding shortfall in restoring the road network following the 2016 wet winter/floods.

This may equate to less grading, resheeting and/or resealing of some roads when they fall due therefore focussing efforts on monitoring and prioritising these activities and risks is important.

In addition, flood mitigation measures to protect Lockhart and The Rock townships is expected to cost \$3.46. Grant funding through OEH is likely however Council's contribution will be \$1M at best case scenario.

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:

- Increasing maintenance and servicing costs.
- Ageing and general deterioration of assets.
- Premature failure of some assets.
- Reduction of service levels in some areas.
- Providing flood protection for community assets
- Meeting community expectations.

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

- Allocating finances to priority assets to sustain current services where possible.
- Ensure preventative maintenance schedules are maintained and enhanced where possible.
- Investigate procurement strategies and alternative cost effective treatments to reduce replacement and lifecycle costs.
- Improve management and prioritisation of capital renewal and upgrade projects.
- Undertake regular condition, functionality and capacity audits to better understand performance of our assets.
- Apply for applicable grant funding through OEH for flood mitigation works as well as Voluntary Purchase Scheme to purchase properties in designated floodways.

Confidence Levels

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

The Next Steps

The actions resulting from this asset management plan are:

- Continue to assess the Remaining Life of all assets on a priority basis and align with up to date performance data and knowledge.

- Ensure funding models reflect the resources required where possible to meet the timely renewal of existing assets and those identified and implemented under the Strategic Plan.
- Increase confidence and prioritise renewal and upgrade/new estimates based on risk.
- Confirm current and desired community and technical levels of service to understand and report on a sustainable service delivery model.
- Maintain an annual review and update of service level performance, financial projections and risk.
- Implement a continuous improvement strategy to assess and report on the performance of council controlled assets.
- Ensure the Asset Management Plan is updated on an annual basis.
- Develop and implement regular condition rating and asset inspections.
- Work with Council & State Government to determine funding streams for road restoration and flood mitigation construction works.

Questions you may have

What is this plan about?

This asset management plan covers the infrastructure assets that serve the Lockhart Shire Community's Transport needs. These assets include

- Bridges
- Culverts & Causeways
- Footpaths
- Kerb & Gutter
- Road pavements and surfaces
- Street Furniture and Streetscapes
- Bulk Earthworks
- Stormwater & flood mitigation

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 organisation'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.

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

Council's road network was severely impacted by the wet winter/floods in 2016, with estimated damage cost of \$2.4m. Council is currently working on funding streams to undertake restoration works and are not included in the sums within this plan.

In addition, flood mitigation measures are estimated to cost \$3.46m to protect both Lockhart and The Rock. Council will be able to apply for grant funding through OEH programs, however it will still cost Council in the order of \$0.93m to construct the flood mitigation

measures, and again this cost is not included in this plan.

What options do we have?

Resolving the funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels,
2. Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure,
5. Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs,
6. Consulting with the community to ensure that 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.
9. Not undertake road restoration following 2016 wet winter/floods and schedule repair works within general budget allocations.
10. Not undertake flood mitigation construction works.

What happens if we don't manage the shortfall?

It is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found. For Transport & Roads, the service level reduction may include roads deteriorating to a lesser service standard resulting in a higher risk situation.

What can we do?

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

What can you do?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and

suggestions on how we may change or reduce the Transport mix of services to ensure that the appropriate level of service can be provided to the community within available funding.

2. INTRODUCTION

2.1 Background

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

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual¹.

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

- Lockhart Shire Council Annual Report 2015/16
- Lockhart Shire Council Community Strategic Plan 2017-2027
- Lockhart Shire Council Long-term Financial Plan 2017-2027

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide Transport services to its community.

Table 2.1: Assets covered by this Plan

Asset category	Replacement Value
Roads	\$188,967,000
Bridges	\$3,653,000
Footpaths	\$1,325,000
Bulk Earthworks	\$7,198,000
Stormwater Drainage	\$588,000
Grand Total	\$201,731,000

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

Table 2.1.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	<ul style="list-style-type: none"> • Represent the needs of community/shareholders, • Communicate the service level capacity of the organisation, • Allocate resources to meet the organisation’s objectives in providing services while managing risks, • Ensure organisation is financially sustainable.
General Manager	Overall responsibility for developing the asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within the organisation.
Director Engineering & Environmental Services	<ul style="list-style-type: none"> • Managerial oversight of inspection regime, identification of and timely and effective response to risks. Annual review and update of service levels. • Provide forward expenditure projections based on delivering various service level scenarios.
Director of Corporate & Community Services	<ul style="list-style-type: none"> • Managerial oversight of asset funding model and Long Term Financial Plan. • Ensure capitalisation process is managed effectively.

Our organisation’s organisational structure for service delivery from infrastructure assets is detailed below:

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

2016 Lockhart Shire Council

Organisation Structure



2.2 Goals and Objectives of Asset Management

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

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

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

2.3 Plan Framework

Key elements of the plan are

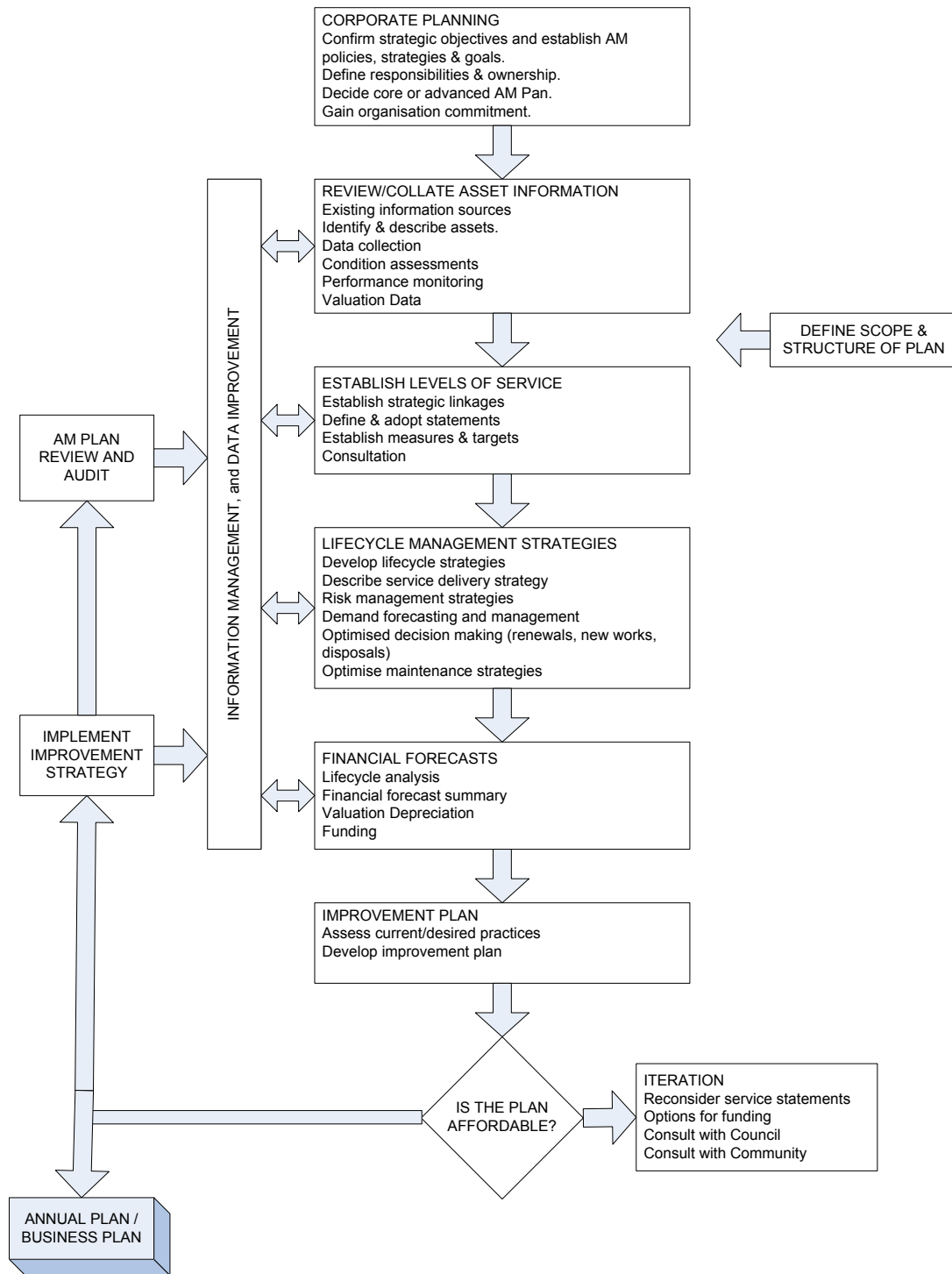
- Levels of service – specifies the services and levels of service to be provided by the organisation,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Life cycle management – how we will manage our existing and future assets to provide defined levels of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

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

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

Road Map for preparing an Asset Management Plan

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



2.4 Core and Advanced Asset Management

This asset management plan is prepared as a ‘core’ asset management plan over a 20-year planning period in accordance with the International Infrastructure Management Manual³. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level.

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

2.5 Community Consultation

This ‘core’ asset management plan is prepared to facilitate community consultation initially through feedback on public display of draft asset management plans prior to adoption by the Council. Future revisions of the asset management plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service. Consultation has occurred regarding flood mitigation and restoration of roads following wet winter in 2016.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

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

3.2 Strategic and Corporate Goals

This asset management plan is prepared under the direction of the organisation’s vision, goals and objectives identified in the Community Strategic Plan.

Our vision is:

“Built on a rich relationship with the land, our community is proud and resilient. We have diverse opportunities, a passion for innovation and a strong sense of community. Together we have built communities that are welcoming, vibrant and sustainable.”

Relevant organisation goals and objectives and how these are addressed in this asset management plan are:

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

Goals	Strategic Objective	Strategic Action
B1: Our Shire is attractive and welcoming to businesses, industry, residents, and visitors	Improve the convenience and amenity of our towns	Ensure that there is sufficient and accessible parking for cars and trailers in the centre of each town
B2: Our community has a strong tourism sector	Create a thriving tourism economy in Lockhart Shire.	Support and develop infrastructure for our tourism sector
C1: Our environmental practices are sustainable	Ensure that Council buildings and facilities are environmentally sensitive.	Investigate installation of new energy efficient street lighting.

³ IPWEA, 2011, IIMM.

Goals	Strategic Objective	Strategic Action
D1: OUR ASSETS AND INFRASTRUCTURE ARE WELL PLANNED AND MANAGED TO MEET THE NEEDS OF THE COMMUNITY NOW AND INTO THE FUTURE.	Plan sustainable transport strategies.	Continue to implement the Lockhart Shire Active Transport Plan that plans for the future maintenance and development of pathways throughout the Shire.
		Provide effective street lighting within the villages of the Shire to support safety and security for pedestrians and vehicular traffic
D1: OUR ASSETS AND INFRASTRUCTURE ARE WELL PLANNED AND MANAGED TO MEET THE NEEDS OF THE COMMUNITY NOW AND INTO THE FUTURE	Improve the safety of people on our roads.	Continue to participate in road safety education, and efficient use and planning of the road network.
		Provide and maintain efficient and safe road and bridge infrastructure
		Undertake road repair works following 2016 wet weather and flood events.
D1: OUR ASSETS AND INFRASTRUCTURE ARE WELL PLANNED AND MANAGED TO MEET THE NEEDS OF THE COMMUNITY NOW AND INTO THE FUTURE.	Reduce the effects of flooding in our towns and villages.	Implement flood mitigation measures for Lockhart.
		Implement flood mitigation measures for The Rock.
D2: Our planning and development controls work to attract new residents and investment	Develop infrastructure that supports growth within our community	Ensure guttering and drainage infrastructure are planned, maintained and developed to meet the demands of the community.
E1: Council is strong, sustainable and able to stand alone.	Plan for the long-term sustainability of the Shire.	Advocate and prepare for the long-term sustainability of our Shire.
		Continue the development of asset management strategy and plans

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

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	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 Amendment (Planning and Reporting) Act 2009	Local Government Amendment (Planning and Reporting) Act 2009 includes the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Work Health & Safety Act 2011	Sets out roles and responsibilities to secure the health, safety and welfare of persons at work and covering injury management, emphasising rehabilitation of workers particularly for return to work. Council is to provide a safe working environment and supply equipment to ensure safety.

3.4 Current Levels of Service

We have defined service levels in two terms.

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

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

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

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

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services such as opening hours, cleansing frequency, mowing frequency, etc.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. 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 (e.g. 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 (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. flood mitigation levee).

Asset managers plan, implement and control technical service levels to influence the customer service levels.⁴

Our current service levels are detailed in Table 3.4.

⁴ IPWEA, 2011, IIMM, p 2.22

Table 3.4: Current and Desired Service Levels

Service Attribute	Service Objective	Performance Measure Process	Current Performance	Expected position in 10 years based on LTFP
COMMUNITY LEVELS OF SERVICE				
Quality	Road infrastructure meets intended service level.	% of road infrastructure in poor/very poor condition including confidence assessment.	52.4% good/very good. 47.6% fair 0% poor/very poor. Medium confidence	To be developed in future revisions of this Plan.
Function	Road infrastructure is 'fit for purpose'.	% of road infrastructure in poor/very poor function.	100% fair/good/very good. 0% poor/very poor. Medium confidence.	To be developed in future revisions of this Plan.
Capacity/ Utilisation	Road infrastructure has the ability to meet service needs.	% of road infrastructure in poor/very poor capacity.	100% fair/good/very good. 0% poor/very poor. Medium confidence.	To be developed in future revisions of this Plan.

Technical service levels are unavailable at present and are recognised as one of the priority tasks in the Improvement Plan.

3.5 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The asset management planning process includes the development of 3 scenarios to develop levels of service that are financially sustainable.

4. FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

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

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Increasing Costs	The cost to construct, maintain and renew infrastructure is increasing at a rate greater than council's revenue	Anticipated to continue	Increasingly difficult to maintain current levels of service.
Larger Trucks	To widen roads or increase pavement thickness to accommodate larger trucks	Anticipated to continue	May not be able to improve assets to accommodate larger/HML trucks.

4.4 Demand Management Plan

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

Non-asset solutions focus on providing the required service without the need for the organisation to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures⁵. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

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

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

Table 4.4: Demand Management Plan Summary

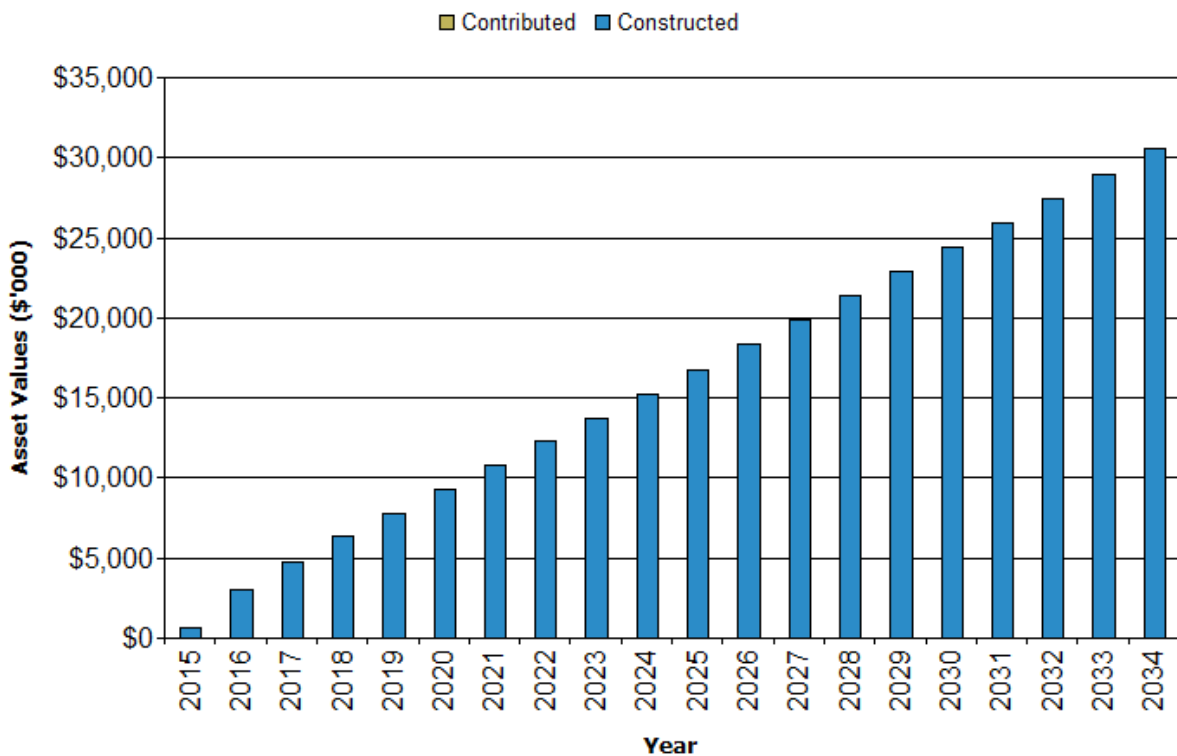
Demand Driver	Impact on Services	Demand Management Plan
Increasing costs	Possible decline in response times and service levels.	Improve understanding of costs and capacity to maintain current service levels
	Ability to fund priority works.	Link asset management plans to long term financial plans and community strategic plans. Continue to analyse the cost of providing service and the capacity to fund at the current level of service. Seek grant funding for projects identified in the Lockhart Shire Community Plan and Asset Management Plans.
	Community dissatisfaction.	Communicate options and capacity to fund road and transport infrastructure with the community. Monitor community expectations and communicate service levels and financial capacity with the community to balance priorities for infrastructure with what the community is prepared to pay for

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be constructed/acquired by the organisation. New assets constructed/acquired by the organisation are discussed in Section 5.5. The cumulative value of these constructed asset values over the 20 year planning period is \$30.52M and is summarised in Figure 1 below.

Figure 1: Upgrade and New Assets to meet Demand

Lockhart SC - Upgrade & New Assets to meet Demand (Transport_S3_V2)



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

5. LIFECYCLE MANAGEMENT PLAN

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

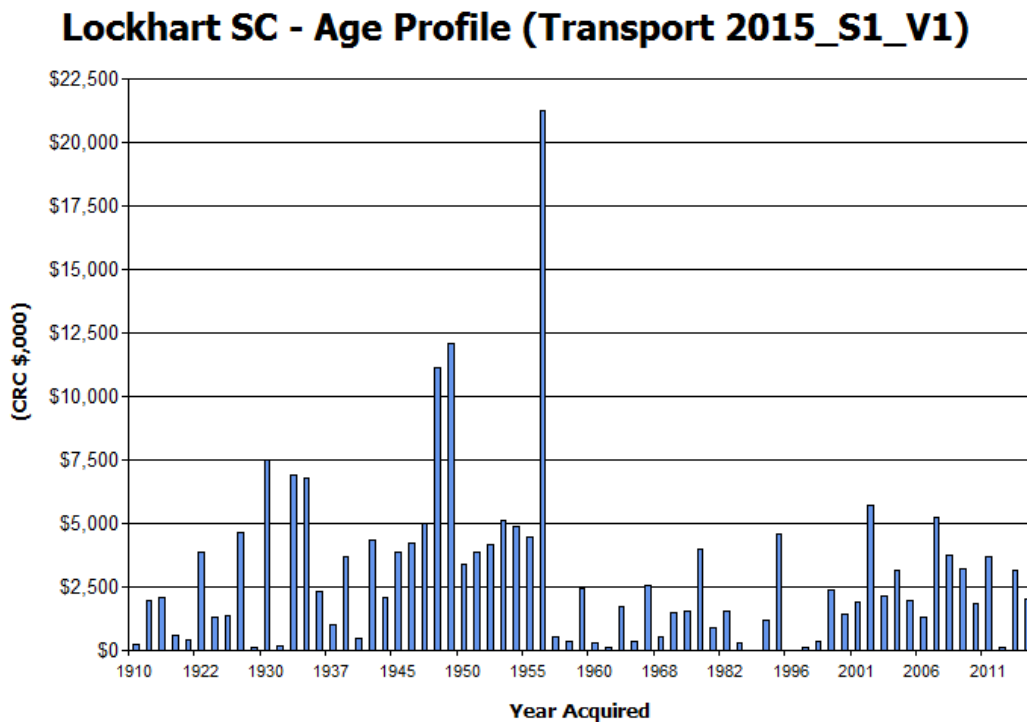
5.1 Background Data

5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1. The useful life of an asset is defined as a period over which a depreciable asset is expected to be fully utilised.

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

Figure 2: Asset Age Profile by Replacement Cost



The age profile shows a significant proportion of assets constructed, acquired and/or renewed in 1956.

5.1.2 Asset capacity and performance

The organisation’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
Known performance deficiencies have not been recorded.	There are no known service deficiencies. This will continue to be monitored in future revisions of the asset management plan.

5.1.3 Asset condition

Condition is monitored on a regular basis.

The condition profile of our assets is shown in Figure 3.

Figure 3: Asset Condition Profile

Lockhart SC - State of The Assets (Transport 2015_S1_V1)



When Condition is measured we use a 1 – 5 grading system⁶ as detailed in Table 5.1.3.

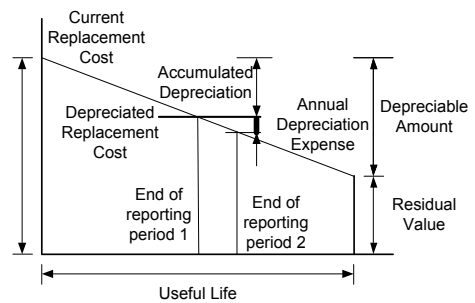
Table 5.1.3: Simple Condition Grading Model

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

5.1.4 Asset valuations

The value of assets recorded in the asset register as at 30 June 2015 covered by this asset management plan is shown below. Assets were last revalued at June 2015. Assets are valued at fair value in accordance with AASB113.

Current Replacement Cost	\$201,731,000
Depreciable Amount	\$201,731,000
Depreciated Replacement Cost ⁷	\$171,946,000
Annual Depreciation Expense	\$1,838,000



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

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

Useful lives were reviewed in June 2015 by conducting a sample based remaining life assessment based on condition to determine overall useful life.

Major changes from previous valuations are due to existing assets not previously recognised and existing records being reviewed and updated after verification.

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

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	0.91%
Rate of Annual Asset Renewal (Capital renewal exp/Depreciable amount)	1.40%
Rate of Annual Asset Upgrade/New (Capital upgrade exp/Depreciable amount)	0.30%

In 2015/16 the organisation plans to renew assets at 148.04% of the rate they are being consumed and will be increasing its asset stock by 0.30% in the year.

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.

5.2 Infrastructure Risk Management Plan

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

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 5.2.

Table 5.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Road Maintenance	Increasing maintenance requirements due to HML and addition of new assets.	High	Continue to improve data Documented service level risks and utilisation for establishing future maintenance priorities. Determine service level hierarchy.	Low to Medium	Within existing budget. Staff time
All road assets	Increasing financial pressure to adequately sustain current service levels. Roads deteriorate to a lesser service standard resulting in a higher risk situation. Premature failure of some assets.	High	Continue to improve data and knowledge by undertaking targeted inspections. Required renewal of road components can be achieved in the short to medium term Future planning improvements can be made by documenting service level risks and utilisation of these in establishing future renewal priorities.	Low to Medium	Within existing budget. Staff time

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
	Damage to assets as a consequence of a significant natural event.	Very High	At present cannot be managed within councils resourcing strategy. Reliant on external assistance. Ensure resources are redirected to manage the NDRRA process when an event is declared.	Low to Medium	Within existing budget. Staff time
Bridges	Failure. Structural and/or functional.	High	Increase inspections and understanding of performance. Investigate strategies and costs to extend life in conjunction with replacement alternatives.	Low to Medium	Within existing budget. Staff time

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

The risk management process has determined there is low to medium residual risk given control measures are in place and funded. Consequently the cost to bring to satisfactory and maintain an acceptable service standard is minimal with council indicating a sustainable position going forward.

5.3 Routine Operations and Maintenance Plan

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

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

5.3.1 Operations and Maintenance Plan

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

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating, e.g. road patching but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

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

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

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

Actual past maintenance expenditure is shown in Table 5.3.1.

Table 5.3.1: Maintenance Expenditure Trends

Year	Maintenance Expenditure		
	Planned and Specific	Unplanned	Total
2012/13	Unavailable	Unavailable	TBA
2013/14	\$424,000	\$637,000	\$1,061,000
2014/15	\$424,000	\$637,000	\$1,061,000

Planned maintenance work is currently 40% of total maintenance expenditure.

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

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

5.3.2 Operations and Maintenance Strategies

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

Scheduling operations activities to deliver the defined level of service in the most efficient manner,

Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 – 70% planned desirable as measured by cost),
 Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
 Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
 Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
 Maintain a current hierarchy of critical assets and required operations and maintenance activities,
 Develop and regularly review appropriate emergency response capability,
 Review management of operations and maintenance activities to ensure the organisation is obtaining best value for resources used.

Asset hierarchy

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

The organisation’s service hierarchy is shown in Table 5.3.2.

Table 5.3.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Bridges	Bridges are part of the overall road network and provide access to communities and other services, supports economic growth and development, and improve safety.
Footpaths	The footpath network provides accessible communities; provide access to other services and supports health and lifestyle.
Regional Roads	The regional road network provides regional and wider access for communities; provides access to a broad range of services and supports economic growth and development.
Local Roads	The local road network provides access within local communities; provides access to services and supports local growth and development.
Signs	Provides directional, regulatory, information advice as part of the transport network.

Critical Assets

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

Operations and maintenance activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc. Critical assets failure modes and required operations and maintenance activities are detailed in Table 5.3.2.1.

Table 5.3.2.1: Critical Assets and Service Level Objectives

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Bridge MR59	Closure of Bridge	Regular inspections and maintenance as required
Bridge MR543	Closure of Bridge	Regular inspections and maintenance as required

Standards and specifications

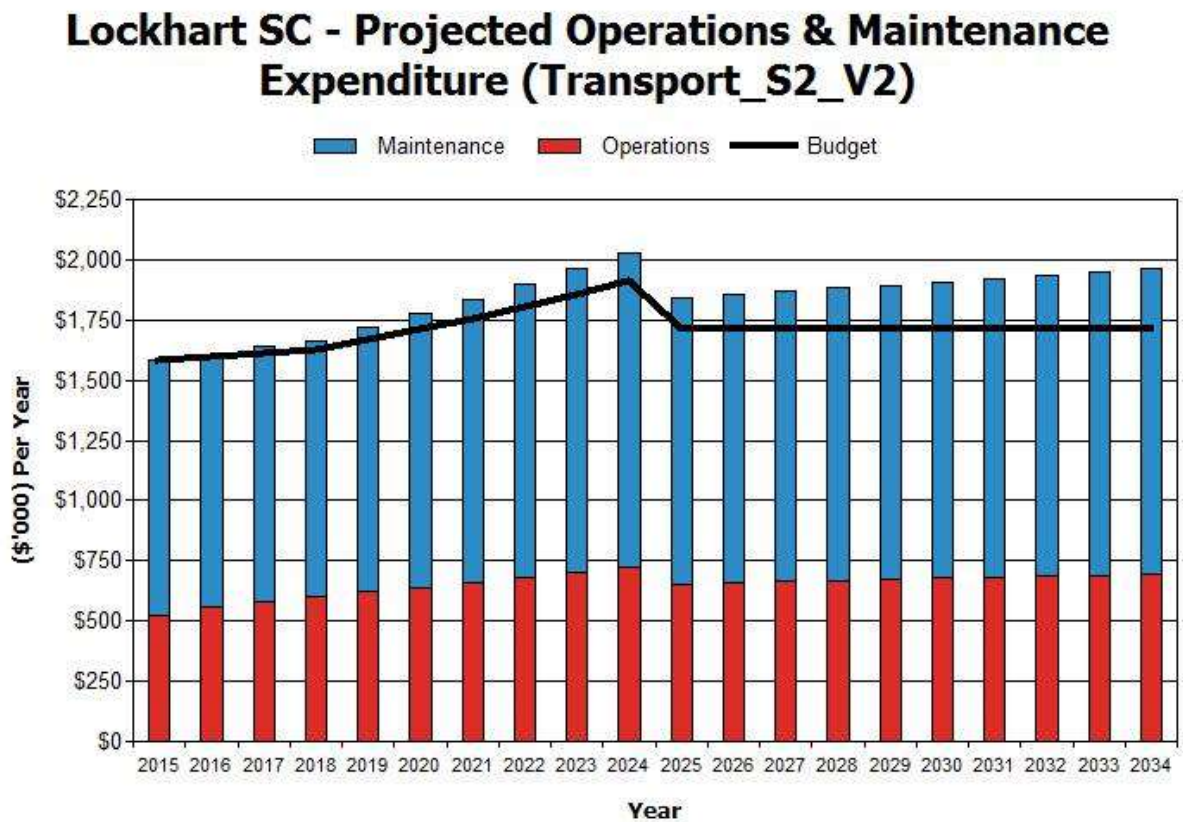
Maintenance work is carried out in accordance with the following Standards and Specifications.

Relevant technical standards and specifications for Road & Transport operations

5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to increase by \$443,000 per year from \$1.58M in 2014/15 to \$2.03M by 2024 in line with the value of the asset stock as shown in Figure 4. The projected funds required over the next 10 years to finance these activities is \$17.71M, the available funding in the LTFP is \$17.136M a shortfall of \$573,000. Note that all costs are shown in current 2014/15 dollar values (i.e. real values net of inflation).

Figure 4: Projected Operations and 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 and analysis in the infrastructure risk management plan.

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

5.4 Renewal/Replacement Plan

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

Examples of renewal include:

- Resurfacing roads
- Rehabilitating road pavements
- Replacing bridges

5.4.1 Renewal plan

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

Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or

Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or

Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the ‘Expenditure template’.

A combination of Methods 1 & 3 was used for this asset management plan. It is recognised that the asset register used in Method 1 is not developed to a level of maturity where it is reliable for producing a realistic renewal forecast. Ideally when this asset register is sorted by remaining life from 1 to 10 years this should be consistent with the capital renewal program. This is not the case at Lockhart Shire Council and the refinement of the asset register to achieve this situation should become an important part of the asset management improvement plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.4.1. Asset useful lives were last reviewed in June 2015.⁸

Table 5.4.1: Useful Lives of Assets

Asset (Sub)Category	Useful life
Box Culvert – Pre cast	100 years
Bridges – Concrete	100 years
Causeways	100 years
Pavement	60-90 years
Pipe Culvert	100 years
Roundabout	50 years
Seal	15 to 20 years
Street Sign Large	40 years
Bulk Earthworks	1000 years

5.4.2 Renewal and Replacement Strategies

The organisation will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
Undertaking project scoping for all capital renewal and replacement projects to identify:

- the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement,
- the project objectives to rectify the deficiency,

⁸ June 2015 Revaluation.

- the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
- and evaluate the options against evaluation criteria adopted by the organisation, and
- select the best option to be included in capital renewal programs,

Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
 Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and the Council,
 Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
 Maintain a current hierarchy of critical assets and capital renewal treatments and timings required ,
 Review management of capital renewal and replacement activities to ensure the organisation is obtaining best value for resources used.

Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg roughness of a road).⁹

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

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.¹⁰

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

Table 5.4.2: Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting
Condition	20%
Function	20%
Safety	25%
Risk	10%
Maintenance	25%
Total	100%

Renewal and replacement standards

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

- Relevant engineering standards

⁹ IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.

¹⁰ Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.

- Relevant standards and specifications for road and transport related works

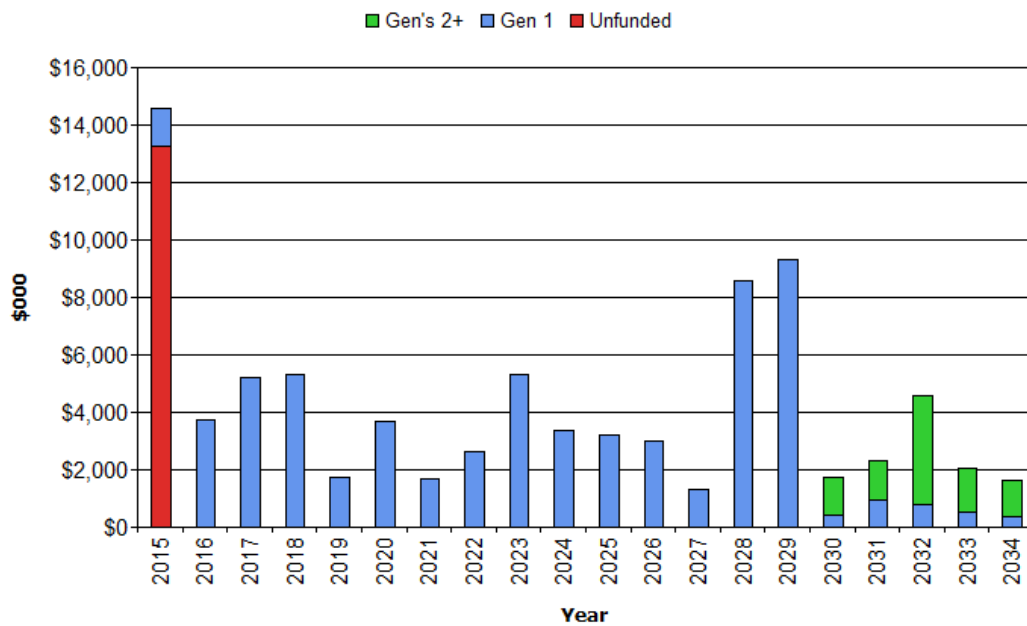
5.4.3 Summary of future renewal and replacement expenditure

The projected 20 year capital renewal expenditures have been developed for each of the three Scenarios and are shown below. All amounts are shown in real values (i.e. 2014/15 dollars and net of inflation).

The projected capital renewal and replacement program accommodated in the long term financial plan under Scenario 3 is shown in Appendix A and discussed further in Section 6.2.

Fig 5.1: Scenario 1 - Projected Capital Renewal and Replacement Expenditure (From Asset Register)

Lockhart SC - Projected Capital Renewal Expenditure (Transport 2015_S1_V1)

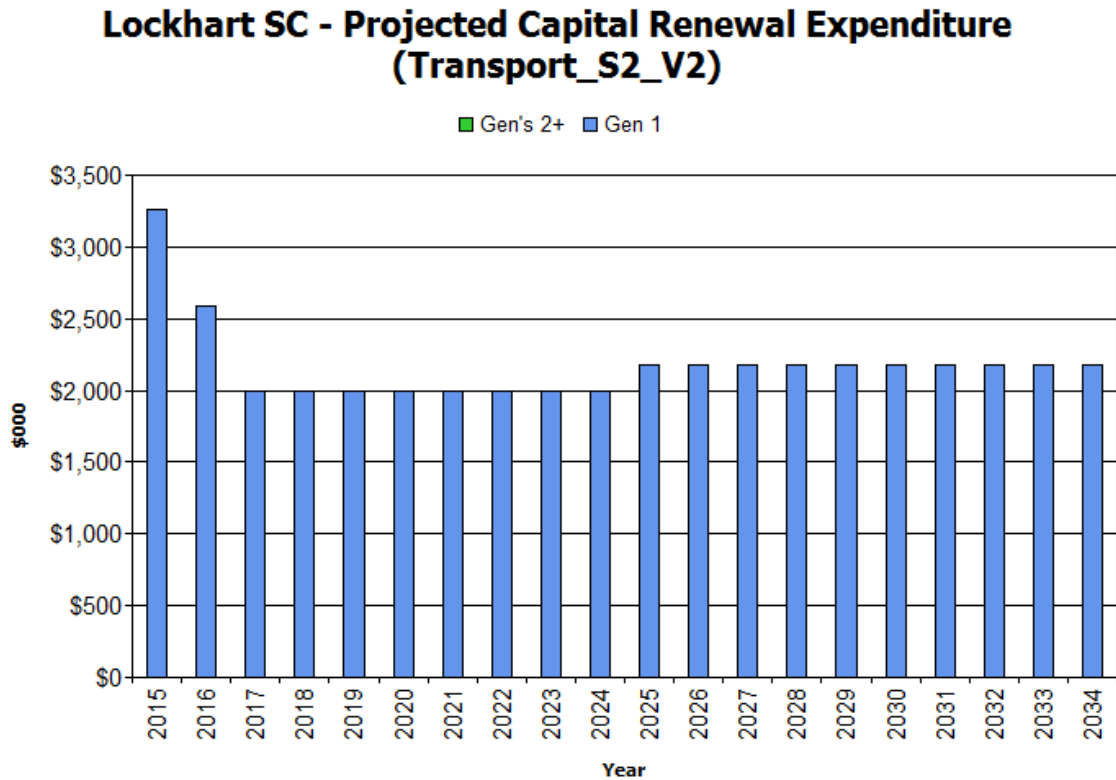


Scenario 1 projects future renewal timing and costs using the acquisition year (or date of last renewal) and useful life from the financial asset register. This is an important aspect as it communicates what is being stated in the audited Financial Statements and should reflect the state of the assets and remaining service potential. Instances can occur where remaining lives can be under and/or over stated which can impact valuations and subsequent depreciation allocated to the Operating Statement.

The renewal projection (forecast) in Scenario 1 shows a highly variable renewal expenditure program over the course of the planning period. The value of assets due for renewal in year 1 is \$14.60M (7.2% of total asset value) of which \$13.26M is identified as 'unfunded', in other words, this is the value of assets that have reached the end of their useful life.

These shorter term renewal forecasts are clearly inconsistent with the known (and funded) capital renewal plans. This indicates that further refinement of the asset register is required before it is used as a capital renewal planning tool and should be given a high priority in the asset management improvement plan. The review is particularly important with respect to the useful lives in the asset register, aligning these with the required expenditure pattern for renewals and partial renewals.

Fig 5.2: Scenario 2 - Projected Capital Renewal and Replacement Expenditure (Sustaining assets and services over the planning period whilst delivering priority renewals)



Scenario 2 is aimed at sustaining existing assets and current service levels over the long term whilst delivering a timely program of improvements to meet the targets set out in the Resourcing Strategy. These needs and estimates are based on technical knowledge and expertise from existing systems and key staff members. This is the best available measure at the present time and improvements are underway to increase the confidence in these forecasts.

The short to medium (10-year) outlook suggests \$21.81M of renewal work is required to sustain current service levels. These works include on average:

Table 5.4.3: Technical Estimate of Renewals

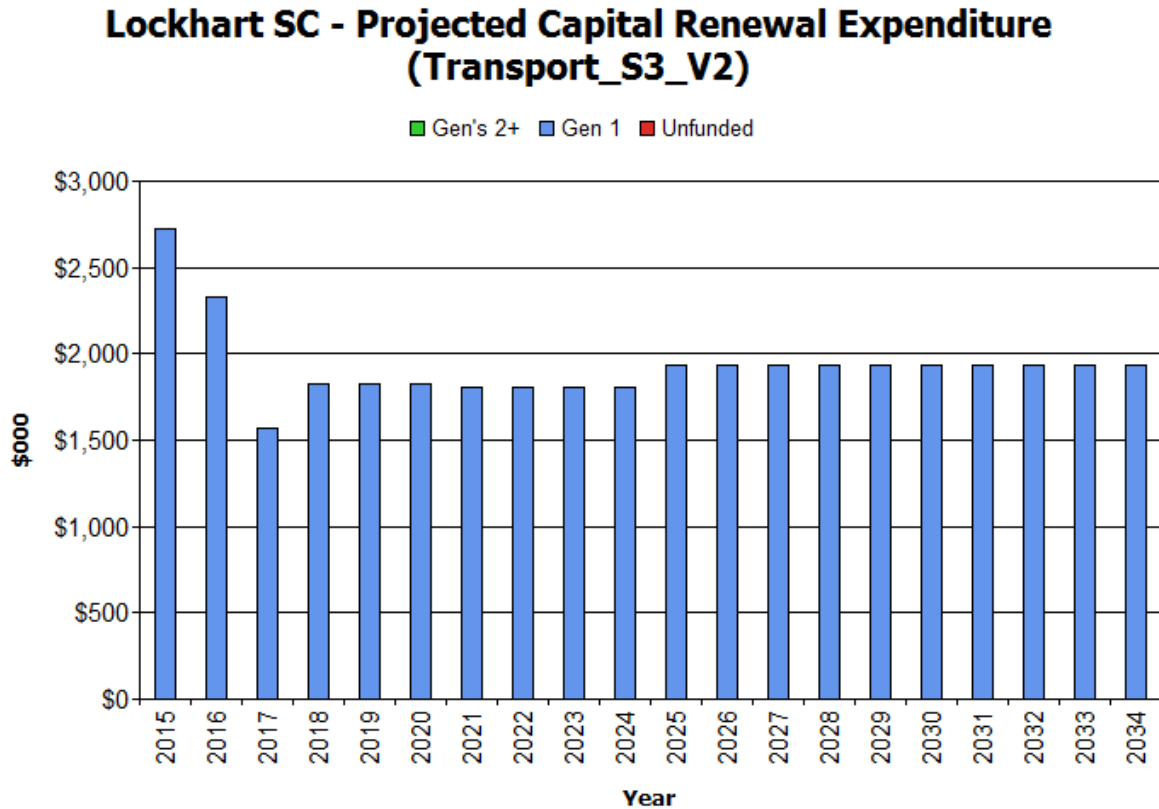
Annual average of Network Renewals	Estimate (\$'000's)
Regional Road Reseals (122 km / 15 yrs life X \$34,000 / km)	\$277
Local Road Reseals (400 km / 21 yrs x \$30,000 / km)	\$571
Regional Pavement Rehabilitation 10% of [122 km / 50 yrs x \$180,000 / km]	\$44
Local Pavement Rehabilitation 5% of (400 km / 60 yrs x \$120,000 / km)	\$40
Local Resheets (858 km / 20 yrs life x \$22,500 / km)	\$965
Footpath replacement (\$20,00 average per year)	\$20
Total	\$1,917

These are medium confidence estimates and are the best available measure of renewal need at the present time.

Given known service performance deficiencies and limited condition, function and capacity data the risks that may arise during the planning period need to be carefully monitored. With increased investment in monitoring, auditing and reporting of the infrastructure supporting the services a more reliable estimate of renewal will assist with evaluating future risks.

These projections create a baseline position to determine what cannot be done when projections are balanced to the LTFP in Scenario 3.

**Fig 5.3: Scenario 3 - Projected Capital Renewal and Replacement Expenditure
(Balanced with the LTFP)**



Scenario 3 balances the capital renewal expenditure projections identified in Scenario 2 with the available funds in the 10 year Long-term Financial Plan (LTFP).

The available funding in the 10 year LTFP for the renewal of assets is estimated at \$19.29M over the next 10 years or approximately \$1.93M per year. When compared to the \$21.81M required funds to sustain existing assets and services for the next 10 years there is an estimated shortfall of \$2.52M or approximately \$252,000 per year. This shortfall is therefore 'pushed' out or deferred to 2025 – 2027 and is a quantitative assessment (in dollar terms) of what cannot be delivered.

Caution should be applied and due assessment made of the risk given the level of confidence applied in the forward projections in Scenario 2 as the risk may actually be lower than assumed. In time, with increased knowledge of the asset stock and future needs officers will be in a more effective position to communicate these risks to the Council and in turn the Council to the Community.

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

Renewals and replacement expenditure in the organisation's capital works program will be accommodated in the long term financial plan under Scenario 3. This is further discussed in Section 6.2.

In addition, following the wet winter/floods of 2016, Council has estimated \$2.4M worth of damaged has occurred to the road network. Council is estimating liability of \$1M to bring these roads back to standard following expenditure of likely grant funding.

5.5 Creation/Acquisition/Upgrade Plan

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

5.5.1 Selection criteria

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

Table 5.5.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Expansion of transport assets is based on corporate priorities to meet community expectations and as identified in the Community Strategic Plan	35%
Safety	25%
Community expectation	10%
Lifecycle costs	30%
Total	100%

5.5.2 Capital Investment Strategies

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

Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,

Undertake project scoping for all capital upgrade/new projects to identify:

- the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
- the project objectives to rectify the deficiency including value management for major projects,
- the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
- management of risks associated with alternative options,
- and evaluate the options against evaluation criteria adopted by Council, and
- select the best option to be included in capital upgrade/new programs,

Review current and required skills base and implement training and development to meet required construction and project management needs,

Review management of capital project management activities to ensure the organisation is obtaining best value for resources used.

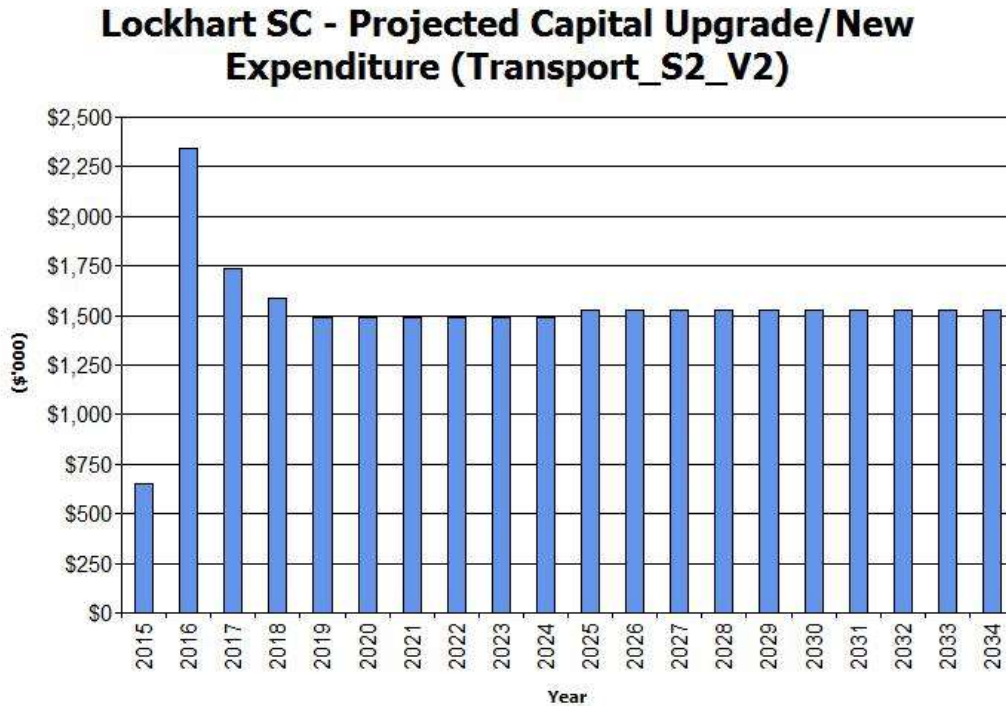
Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

The projected 20 year capital upgrade/new expenditures have been developed for Scenario 2 & 3 and are shown below. All amounts are shown in real values (i.e. 2014/15 dollars and net of inflation).

The projected \$30.52M upgrade/new capital program under **Scenario 2** shown in Figure 6.1 below shows the prioritised delivery of projects and programs over the 20-year planning period. The first ten years to 2024 includes in excess of \$15.26M worth of projects.

Fig 6.1: Scenario 2 - Projected Capital Upgrade/New Asset Expenditure
(Sustaining assets and services over the planning period whilst delivering priority upgrade and new projects)



The \$3.853M short to medium (10-year) priority upgrade/new projects include:

Asset	Work Type	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
1060-4610-0000 Depot Purchases	Upgrade	\$0	\$40	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$240
5020-4600-0000 Urban Roads Construction - WIP	Upgrade	\$114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114
5040-4600-0000 Regional Roads - WIP	Upgrade	\$385	\$384	\$775	\$625	\$525	\$525	\$525	\$525	\$525	\$525	\$5,319
5065-4600-0000 Rural Roads Sealed - WIP	Upgrade	\$60	\$1,850	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$7,910
5260-4600-0000 Footpath Construction - WIP	Upgrade	\$90	\$67	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$877
5360-4600-0000 Flood Mitigation - Structures/Drains New		\$0	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$800
		\$649	\$2,341	\$1,740	\$1,590	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490	\$15,260

Expenditure on new assets and services in the organisation’s capital works program is accommodated in the long term financial plan. This is further discussed in Section 6.2.

What is not forecasted is the expenditure required to construct the new flood mitigation measures in Lockhart and The Rock, following completion of Flood Studies in 2014. Total expenditure is estimated to be \$3.486m, with Council required to fund at least \$1m of this cost.

In addition, funding of the road restoration following wet winter/flood in 2016, with estimated \$2.4m in damage, is yet to be finalised however it is expected that there will be \$1m shortfall in funding to Council.

5.6 Disposal Plan

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

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

Table 5.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
No assets have been identified for disposal in this asset management plan				

5.7 Service Consequences and Risks

Developing a financially sustainable long-term financial and asset management plans will often require the organisation making trade-off decisions on service levels, service consequences, service risks, and financing levels. Development of the 3 Scenarios used in this plan provides a method to facilitate these discussions.

Scenario 1 - What we would like to do based on asset register data. Projects future renewal timing and costs using the acquisition year (or date of last renewal) and useful life from the financial asset register.

Scenario 2 – Is aimed at sustaining existing assets and service levels over the long term whilst delivering a timely program of improvements to meet the targets set out in the Community Strategic Plan. These needs and estimates are based on technical knowledge and expertise from existing systems and key staff members.

Scenario 3 – What we can do and be financially sustainable with the AM Plan matching Long-Term Financial Plan. What we should do with existing budgets and identifying level of service and risk consequences (i.e. what are the operations and maintenance and capital projects we are unable to do, what is the service and risk consequences associated with this position).

The development of the 3 scenario AM Plans provides the tools for discussion with the Council, stakeholders and the community on trade-offs between what we would like to do (Scenario 1) and what we should be doing with existing budgets (Scenario 2) by balancing changes in services and service levels with affordability and acceptance of the service and risk consequences of the trade-off position (Scenario 3).

5.7.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- An estimated \$2.513M funding shortfall in priority renewals over the next 10 years, and
- An estimated \$572,000 funding shortfall in priority operations and maintenance activities over the next 10 years due to the acquisition of new assets.
- An estimated \$1M funding shortfall in constructing flood mitigation measures in Lockhart & The Rock.
- An estimated \$1M funding shortfall in restoring the road network following the 2016 wet winter/floods.
- Anticipated gradual reduction in maintenance grading and road resealing frequency for some roads.

5.7.2 Service consequences

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Increased number of potholes and corrugations on some unsealed roads.
- Longer response time to service requests.
- Increased deterioration of road network following damage during wet winter
- Failure to construct flood mitigation measure that will protect community assets in Lockhart and The Rock.

5.7.3 Risk consequences

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences for the organisation. These include:

- Accelerated ageing and general deterioration of assets.
- Increased maintenance and servicing costs.

These risks have been included with the Infrastructure Risk Management Plan summarised in Section 5.2 and risk management plans actions and expenditures included within projected expenditures.

6. FINANCIAL SUMMARY

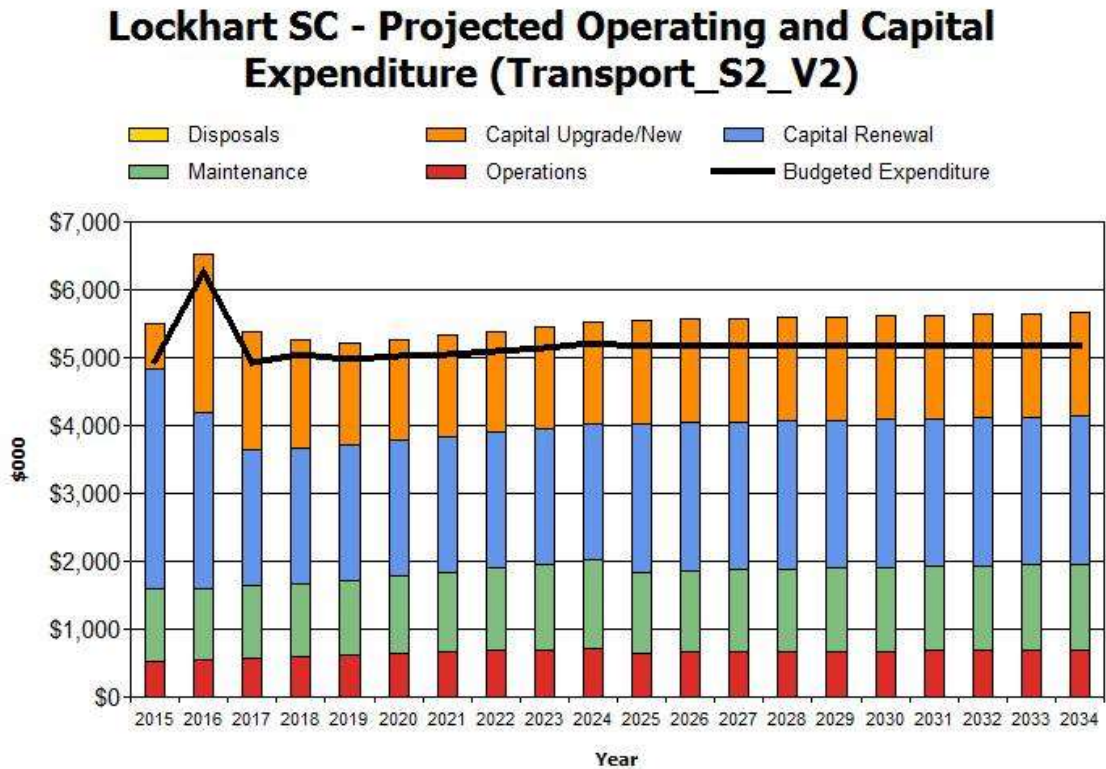
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset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

The projections are based on the best available information and are aimed at giving a direction for the future and indication of priority for asset and financial management and planning. There may be concerns about the reliability and accuracy of the data used to prepare the financial projections, however, it is important that the projections be based on best available information and improved over time as information becomes available on desired levels of service and current and projected future asset performance.

6.1 Financial Statements and Projections

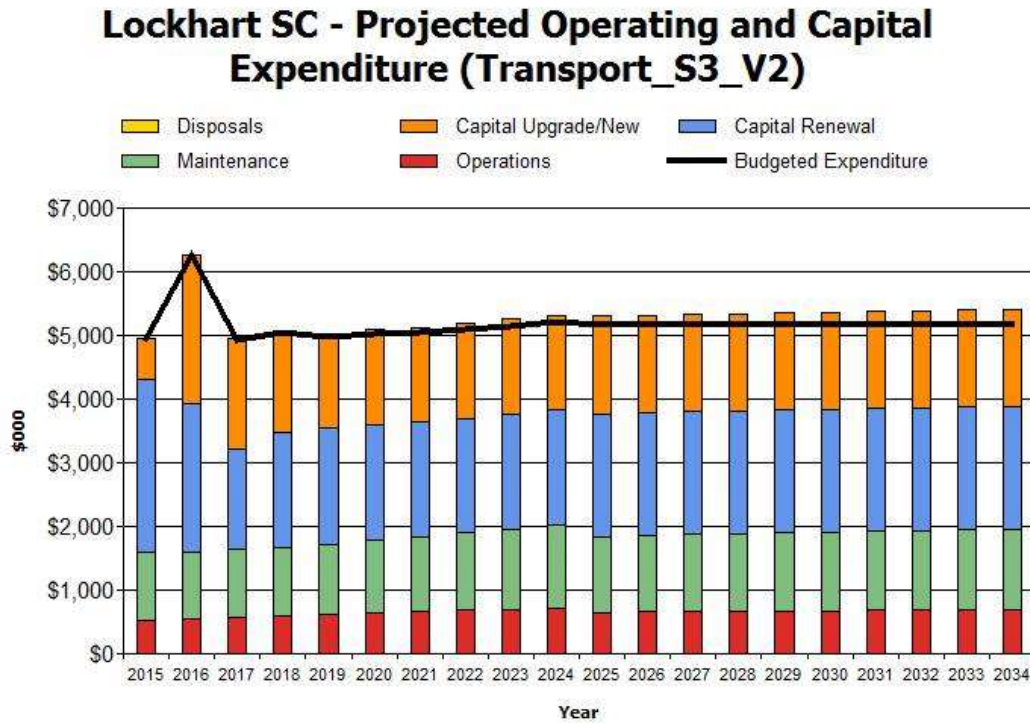
The combined 20 year financial projections for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets) for Scenario 2 & 3 are shown below. All amounts are shown in real values (i.e. 2014/15 dollars and net of inflation).

Fig 7.1: Scenario 2 - Projected Operating and Capital Expenditure
(Sustaining assets and services over the planning period at current levels)



Scenario 2 requirements are based on an amount sustaining existing assets over the long term at current service levels. This level of funding estimated at \$54.775M over the next 10 years is not currently being achieved in the Long Term Financial Plan (current projections suggest \$51.690M is allocated). This means the deferral of \$3.085M priority operational, replacement and upgrade/new works and activities past the 10 year LTFP timeframe which is represented in Figure 7.2 below.

**Fig 7.2: Scenario 3 - Projected Operating and Capital Expenditure
(Balanced with the LTFP)**



The mix of operational and capital expenditure in the \$3.085M deferral past the first 10 years of the plan is a question for the Executive and Council to determine. Clearly there will be implications and the service and risk consequence of this should form the basis of reviewing priorities in subsequent updates of the asset management plan as part of the ongoing improvement plan, however it would appear that it can be managed under Scenario 3.

6.1.1 Sustainability of service delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the:

1. Asset renewal funding ratio,
2. Long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ 88%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, the organisation is forecasting that it will have 88% of the funds required for the optimal renewal and replacement of its assets.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$2.728M per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

¹¹ AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is \$3.643M per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is +\$915,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 101% of life cycle costs.

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 current services 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 \$3.952M on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$3.643M on average per year giving a 10 year funding shortfall of -\$309,000 per year. This indicates that the organisation expects to have 92% of the projected expenditures needed to provide the services documented in the asset management plan.

Medium Term – 5 year financial planning period

The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$4.008M on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$3.670M on average per year giving a 5 year funding shortfall of -\$338,000. This indicates that the organisation expects to have 92% of projected expenditures required to provide the services shown in this asset management plan.

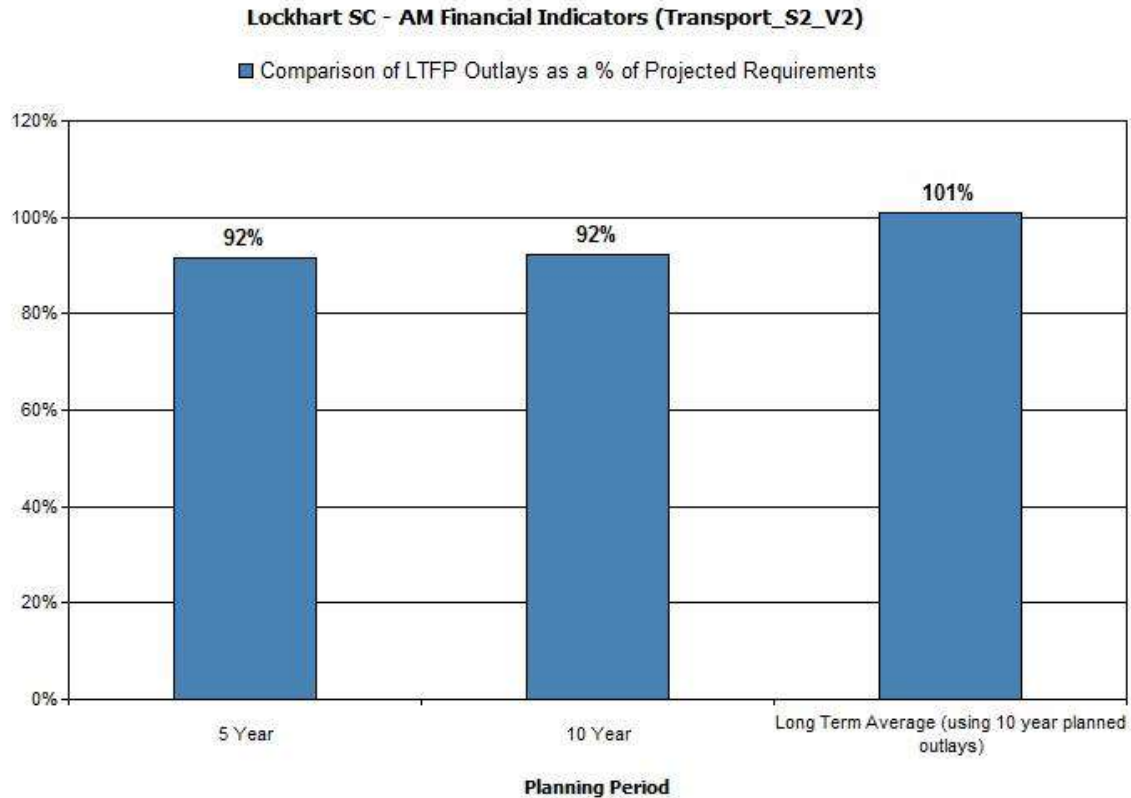
Asset management financial indicators

Figure 7.3 shows the long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period expressed as a percentage.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 100% for the first few years of the asset management plan and ideally over the 10 year life of the Long Term Financial Plan. Anything less than this in the 5-10 year period would suggest funding levels below that required to sustain existing service levels.

The following chart summarises the ratios for Scenario 2 - Sustaining assets and services at current levels over the planning period.

Figure 7.3: Scenario 2 - Asset Management Financial Indicators
(Sustaining assets and services over the planning period at current levels)



The chart illustrates that funding remains below what is required to sustain existing service levels for the short to medium term (5 to 10 years). It shows council has 92% of the funds required to operate, maintain and replace assets in the next 5 to 10 years and 101% over the assets life cycle.

For the 5 year planning period, the projected and planned expenditures should be almost the same to demonstrate sustainability, the gap should be close to zero and the sustainability indicator should be nearing 1.0 or 100% as this is the period most under the control of Council.

Although at 92% this is not cause for immediate concern and improvements in data quality and a review of services and service levels and financing options will lead to a more sustainable position.

It should be noted that the above figures and charts do not include the expected \$1m shortfall in road restoration costs following wet winter/flood of 2016 as well as \$1m Council contribution towards flood mitigation measures. These items will need to be subject to further Council review/discussion.

Figure 8 shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the long term financial plan

Figure 8: Projected and LTFP Budgeted Renewal Expenditure

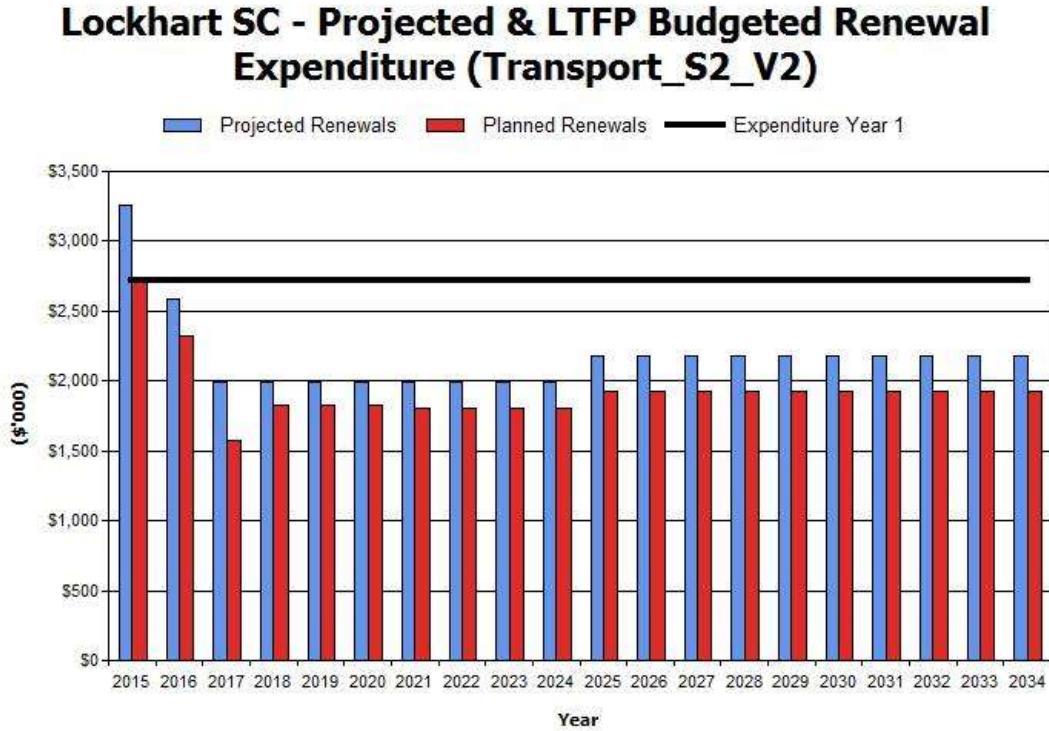


Table 6.1.1 shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in long term financial plan. Budget expenditures accommodated in the long term financial plan or extrapolated from current budgets are shown in Appendix C.

Table 6.1.1: Projected and LTFP Budgeted Renewals and Financing Shortfall

Year	Projected Renewals (\$000)	LTFP Renewal Budget (\$000)	Renewal Financing Shortfall (\$000) (-ve Gap, +ve Surplus)	Cumulative Shortfall (\$000) (-ve Gap, +ve Surplus)
2015	\$3,261	\$2,721	-\$540	-\$540
2016	\$2,585	\$2,327	-\$258	-\$797
2017	\$1,995	\$1,572	-\$423	-\$1,221
2018	\$1,995	\$1,822	-\$173	-\$1,394
2019	\$1,995	\$1,822	-\$173	-\$1,567
2020	\$1,995	\$1,822	-\$173	-\$1,740
2021	\$1,995	\$1,802	-\$193	-\$1,933
2022	\$1,995	\$1,802	-\$193	-\$2,126
2023	\$1,995	\$1,802	-\$193	-\$2,320
2024	\$1,995	\$1,802	-\$193	-\$2,513
2025	\$2,181	\$1,929	-\$251	-\$2,764
2026	\$2,181	\$1,929	-\$251	-\$3,015
2027	\$2,181	\$1,929	-\$251	-\$3,267
2028	\$2,181	\$1,929	-\$251	-\$3,518
2029	\$2,181	\$1,929	-\$251	-\$3,769
2030	\$2,181	\$1,929	-\$251	-\$4,021

Year	Projected Renewals (\$000)	LTFP Renewal Budget (\$000)	Renewal Financing Shortfall (\$000) (-ve Gap, +ve Surplus)	Cumulative Shortfall (\$000) (-ve Gap, +ve Surplus)
2031	\$2,181	\$1,929	-\$251	-\$4,272
2032	\$2,181	\$1,929	-\$251	-\$4,523
2033	\$2,181	\$1,929	-\$251	-\$4,774
2034	\$2,181	\$1,929	-\$251	-\$5,026

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

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

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

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

6.1.2 Projected expenditures for long term financial plan

Table 6.1.2.1 & 6.1.2.2 shows the projected expenditures for the 10 year long term financial plan for Scenario 2 & 3.

Expenditure projections are in 2014/15 real values.

Table 6.1.2.1: - Projected Expenditures for Long Term Financial Plan (\$000) Scenario 2

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2015	\$523	\$1,061	\$3,261	\$649	\$0
2016	\$556	\$1,045	\$2,585	\$2,341	\$0
2017	\$581	\$1,057	\$1,995	\$1,740	\$0
2018	\$601	\$1,063	\$1,995	\$1,590	\$0
2019	\$621	\$1,100	\$1,995	\$1,490	\$0
2020	\$640	\$1,138	\$1,995	\$1,490	\$0
2021	\$660	\$1,176	\$1,995	\$1,490	\$0
2022	\$681	\$1,218	\$1,995	\$1,490	\$0
2023	\$701	\$1,261	\$1,995	\$1,490	\$0
2024	\$723	\$1,304	\$1,995	\$1,490	\$0

Table 6.1.2.2: - Projected Expenditures for Long Term Financial Plan (\$000) Scenario 3

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2015	\$523	\$1,061	\$2,721	\$649	\$0
2016	\$554	\$1,041	\$2,327	\$2,341	\$0
2017	\$573	\$1,041	\$1,572	\$1,740	\$0
2018	\$587	\$1,038	\$1,822	\$1,590	\$0
2019	\$602	\$1,066	\$1,822	\$1,490	\$0
2020	\$617	\$1,096	\$1,822	\$1,490	\$0
2021	\$632	\$1,126	\$1,802	\$1,490	\$0

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2022	\$649	\$1,160	\$1,802	\$1,490	\$0
2023	\$665	\$1,194	\$1,802	\$1,490	\$0
2024	\$682	\$1,230	\$1,802	\$1,490	\$0

6.2 Funding Strategy

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

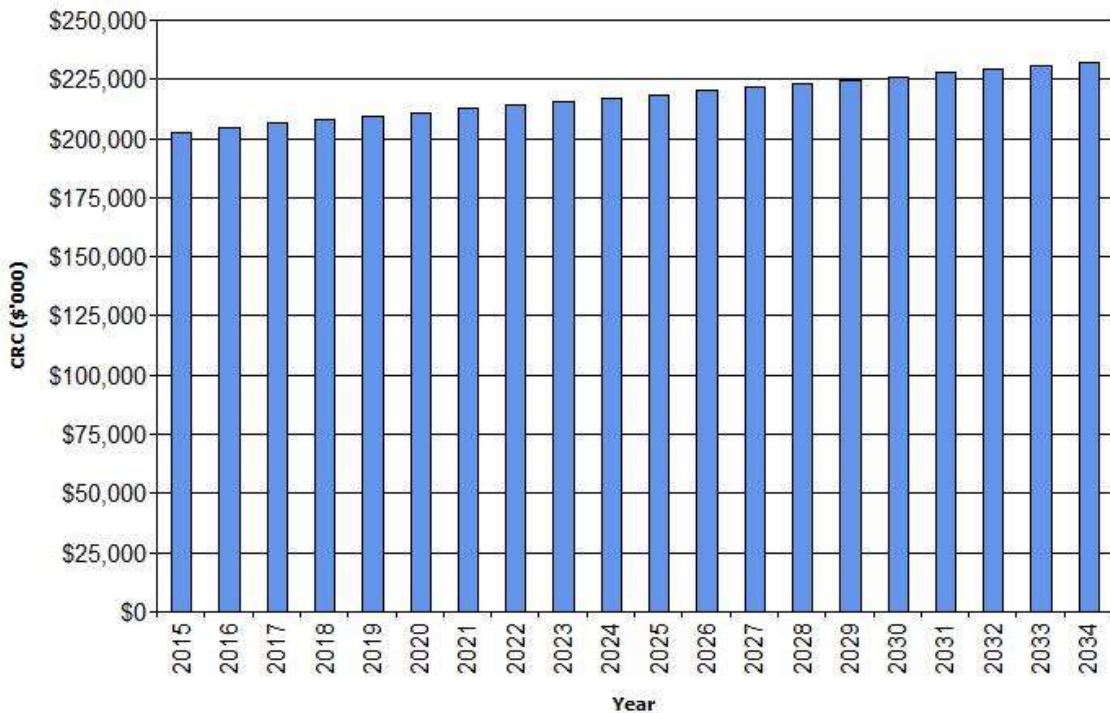
Again, it should be noted that the above figures and charts do not include the expected \$1m shortfall in road restoration costs following wet winter/flood of 2016 as well as \$1m Council contribution towards flood mitigation measures. These items will need to be subject to further Council review/discussion.

6.3 Valuation Forecasts

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

Figure 9: - Projected Asset Values

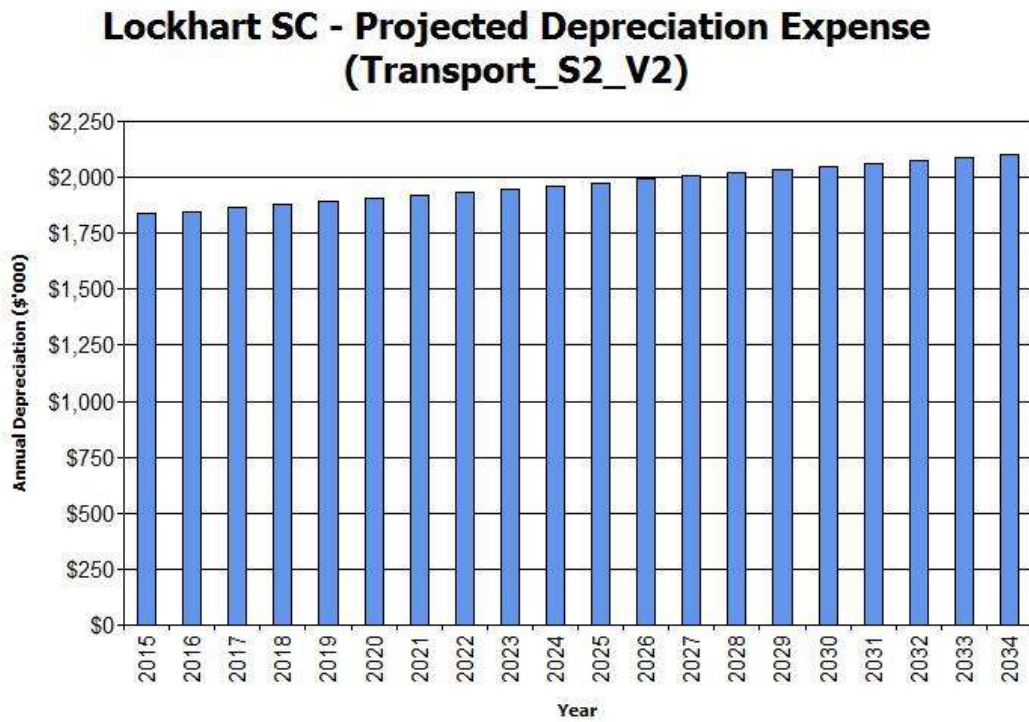
Lockhart SC - Projected Asset Values (Transport_S2_V2)



The projected asset values are forecast to increase by \$29.87M from the current value of \$201M to \$230M by 2033.

Depreciation expense values are forecast to increase in line with asset values as shown in Figure 10 from \$1,838,000 in 2015 to \$2.10M in 2033.

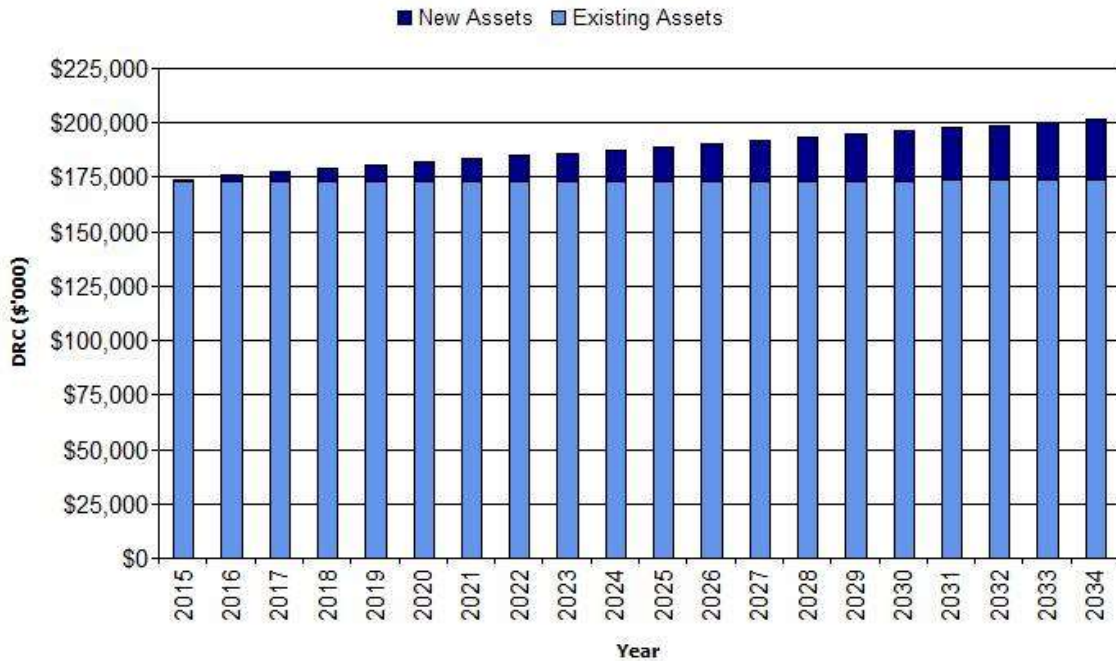
Figure 10: - Projected Depreciation Expense



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

Figure 11: - Projected Depreciated Replacement Cost

Lockhart SC - Projected Depreciated Replacement Cost (Transport_S2_V2)



The renewal of existing assets (lighter coloured bars) is increasing gradually over the planning period suggesting the organisation is replacing assets when they are due. The degree of risk is low however it should not be ignored. The addition of new assets (darker coloured bars) is adding to the overall Depreciated Replacement Cost and the increase is only slight and the overall DRC is projected to increase over time.

6.4 Key Assumptions made in Financial Forecasts

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

Key assumptions made in this asset management plan and risks that these may change are shown in Table 6.4.

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

Key Assumptions	Risks of Change to Assumptions
The assets will remain in the organisations ownership throughout the planning period.	Low
Required maintenance is assumed to take place in accordance with relevant guidelines/standards.	Low
All expenditure stated are in 2014/15 dollar values.	Low
Financial projections are based on historical expenditure and revenue trends and assume there will no significant change.	Medium
It is assumed that regulations/standards relating to operations will remain the same over the planning period.	Medium
No allowance made for contributed assets from development.	Low

6.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹² in accordance with Table 6.5.

Table 6.5: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.5.1.

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

Data	Confidence Assessment	Comment
Demand drivers	B Reliable	Based on local corporate knowledge and State government projections.
Growth projections	B Reliable	Based on State government projections.
Operations expenditures	B Reliable	Council records
Maintenance expenditures	B Reliable	Council records
Projected Renewal expenditures.		
- Asset values	C Uncertain	Assets last revalued in June 2010.
- Asset residual values	C Uncertain	Asset residual values not recognised.
- Asset useful lives	B Reliable	Based on June 2010 assessment.
- Condition modelling	C Uncertain	Based on expert judgement and experience.
- Network renewals	C Uncertain	Based on asset register and network level modelling from expert judgement.
Upgrade/New expenditures	B Reliable	Projected proposals identified however low confidence estimates.
Disposal expenditures	B Reliable	Projected proposals identified however low confidence estimates.

Over all data sources, the data confidence is assessed as Low to Medium confidence level for data used in the preparation of this AM Plan.

¹² IPWEA, 2011, IIMM, Table 2.4.6, p 2|59.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Status of Asset Management Practices

7.1.1 Accounting and financial systems

Lockhart Shire Council uses the Practical Plus Accounting System for financial and asset accounting.

Accountabilities for financial systems

The financial systems are managed by the Director Corporate & Community Services.

Accounting standards and regulations

Council works under Australian Accounting Standards and NSW State Legislation/Regulations and Directives issued by the Division of Local Government

- NSW Local Government Act 1993
- Local Government Amendment (Planning and Reporting) Act 2009
- NSW Local Government Code of Accounting Practice and Financial Reporting
- Australian Accounting Standards Board AASB116

Capital/maintenance threshold

- Land 100% Capitalised
- Plant and Equipment Capitalise if value >\$500
- Buildings and Land Improvements
- Park Furniture and Equipment Capitalise if value >\$500
- Building Construction/Extensions 100% Capitalised
- Other Structures Capitalise if value >\$1,000
- Stormwater Assets Capitalise if value >\$1,000
- Transport Assets
- Road construction & reconstruction 100% Capitalised
- Reseal, re-sheet & major repairs Capitalise if value >\$10,000
- Bridge construction & reconstruction Capitalise if value >\$10,000

Required changes to accounting financial systems arising from this AM Plan

Changes to asset management systems identified as a result of preparation of this asset management plan are:

- Develop reporting on expenditures, with separation of costs for operations as opposed to maintenance and improved reporting on capital expenditures as renewal or upgrade/new,
- Continued input and development of a single corporate asset register, in which financial calculations including calculation of annual depreciation can be undertaken by council.
- Linking of the customer service system/work orders to the corporate asset register to link requests to asset records,

- Improved project cost accounting to record costs against the asset component and develop valuation unit rates.

7.1.2 Asset management system

The BizeAssets asset management system is used as the Asset Register. The goal is to use MapInfo as an interface for the addition, maintenance and disposal of assets, with financial data attached to points, lines and regions on a map.

Asset registers

Asset data is managed and stored with:

- BizeAssets

Linkage from asset management to financial system

There is no seamless link between the asset and financial management systems. Capitalisation and updates are managed via a manual process.

Accountabilities for asset management system and data maintenance

The assets systems are managed by the Director Engineering & Environmental Services

Required changes to asset management system arising from this AM Plan

- Review the accuracy and currency of asset related data,
- Continued development of a single technical asset register as the corporate asset register, in which financial valuation calculations including annual depreciation can be undertaken at an individual asset component level.
- Development of a works costing and maintenance management system to improve works planning and cost recording, in particular to identify expenditure type (operations, maintenance, capital renewal and capital new/upgrade)
- Improved project cost accounting to record costs against the asset component and develop valuation unit rates.
- Confirmation and development of additional funding required to complete road restoration following wet winter/flood in 2016 as well as construction of proposed flood mitigation measures.

7.2 Improvement Program

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

Table 7.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Asset Register Assess the Remaining Life of all assets on a priority basis and align with up to date performance data and knowledge.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
2	Forward Projections Ensure funding models reflect the resources required meeting the timely renewal of existing assets and those identified and implemented under the Strategic Plan.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
3	Increase confidence and prioritise renewal and upgrade/new estimates based on risk.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
4	Levels of Service Develop and confirm current and desired community and technical levels of service to understand and report on a sustainable service delivery model.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
5	AM Plan Maintain an annual review of the plan incorporating an update of service level performance, financial projections and risk.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
6	Implement a continuous improvement strategy to assess and report on the performance of LSC controlled assets.	Corporate (Technical & Financial)	Existing budget Staff time	Dec 2017
7	Road Restoration – 2016 wet winter/floods: finalise funding	Corporate (Technical & Financial)	Existing budget Staff time	May 2017
8	Flood Mitigation Construction: finalise funding	Corporate (Technical & Financial)	Existing budget Staff time	May 2017
9				

7.3 Monitoring and Review Procedures

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

The AM Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the organisation's long term financial plan.

The AM Plan has a life of 4 years (Council election cycle) and is due for complete revision and updating within 6 months of each Council election.

7.4 Performance Measures

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

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

8. REFERENCES

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9. APPENDICES

Appendix A Budgeted Expenditures Accommodated in LTFP

Appendix B Aspirational Scenario – Projected 10 year Capital Works Program

Appendix C Affordable Scenario - Projected 10 year Capital Works Program (LTFP)

Appendix D Abbreviations

Appendix E Glossary

Appendix A Budgeted Expenditures Accommodated in the LTFP

NAMS.PLUS3 Asset Management		Lockhart SC	
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Transport_S3_V2		Asset Management Plan	
		IPWEA INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA	
		JRA	

Transport	First year of expenditure projections	2015	(financial yr ending)
Asset values at start of planning period			
Current replacement cost		201,731 (000)	Calc CRC from Asset Register
Depreciable amount		201,731 (000)	\$0 (000)
Depreciated replacement cost		171,946 (000)	This is a check for you.
Annual depreciation expense		1,838 (000)	

Operations and Maintenance Costs for New Assets		% of asset value
Additional operations costs		0.30%
Additional maintenance		0.55%
Additional depreciation		0.91%
Planned renewal budget (information only)		
You may use these values calculated from your data or overwrite the links.		

Planned Expenditures from LTFP	
20 Year Expenditure Projections	Note: Enter all values in current 2015 values

Financial year ending	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Expenditure Outlays included in Long Term Financial Plan (in current \$ values)										
Operations										
Operations budget	\$523	\$554	\$573	\$587	\$602	\$617	\$632	\$649	\$665	\$682
Management budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AM systems budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total operations	\$523	\$554	\$573	\$587	\$602	\$617	\$632	\$649	\$665	\$682
Maintenance										
Reactive maintenance budget	\$637	\$625	\$625	\$623	\$640	\$657	\$675	\$696	\$717	\$738
Planned maintenance budget	\$424	\$416	\$416	\$415	\$427	\$438	\$450	\$464	\$478	\$492
Specific maintenance items budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total maintenance	\$1,061	\$1,041	\$1,041	\$1,038	\$1,066	\$1,096	\$1,126	\$1,160	\$1,194	\$1,230
Capital										
Planned renewal budget	\$2,721	\$2,327	\$1,572	\$1,822	\$1,822	\$1,822	\$1,802	\$1,802	\$1,802	\$1,802
Planned upgrade/new budget	\$649	\$2,341	\$1,740	\$1,590	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490
Non-growth contributed asset value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Asset Disposals										
Est Cost to dispose of assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carrying value (DRC) of disposed assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Additional Expenditure Outlays Requirements (e.g from Infrastructure Risk Management Plan)										
Additional Expenditure Outlays required and not included above	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Renewal	to be incorporated into Forms 2 & 2.1 (where Method 1 is used) OR Form 2B Defect Repairs (where Method 2 or 3 is used)									
Capital Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
User Comments #2										

Forecasts for Capital Renewal using Methods 2 & 3 (Form 2A & 2B) & Capital Upgrade (Form 2C)										
Forecast Capital Renewal from Forms 2A & 2B	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Forecast Capital Upgrade from Form 2C	\$2,721	\$2,327	\$1,572	\$1,822	\$1,822	\$1,822	\$1,802	\$1,802	\$1,802	\$1,802
	\$649	\$2,341	\$1,740	\$1,590	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490	\$1,490

Appendix B Aspirational Scenario – Projected 10 year Capital Works Program

Aspirational Scenario - Capital Works Forecast (i.e. what we would like to do to sustain current service levels - x% in poor/very poor condition)

Asset	Work Type	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Regional Road Reseals (122 km / 15 yrs life X \$34,000 / km)	Renewal	\$277	\$277	\$277	\$277	\$277	\$277	\$277	\$277	\$277	\$277	\$2,765
Local Road Reseals (400 km / 21 yrs x \$30,000 / km)	Renewal	\$571	\$571	\$571	\$571	\$571	\$571	\$571	\$571	\$571	\$571	\$5,714
Regional Pavement Rehabilitation 5% of [122 km / 50 yrs x \$180,000 / km]	Renewal	\$346	\$313	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$835
Local Pavement Rehabilitation 5% of (400 km / 60 yrs x \$120,000 / km)	Renewal	\$996	\$379	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$1,695
Local Resheets (858 km / 20 yrs life x \$22,500 / km)	Renewal	\$965	\$965	\$965	\$965	\$965	\$965	\$965	\$965	\$965	\$965	\$9,653
Footpath replacement (\$20,00 average per year)	Renewal	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$200
5100-4600-0000 Culvert Construction - WIP	Renewal	\$85	\$0	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$405
5265-4600-0000 Kerb & Gutter - WIP	Renewal	\$0	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$540
1060-4610-0000 Depot Purchases	Upgrade	\$0	\$40	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$240
5020-4600-0000 Urban Roads Construction - WIP	Upgrade	\$114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114
5040-4600-0000 Regional Roads - WIP	Upgrade	\$385	\$384	\$775	\$625	\$525	\$525	\$525	\$525	\$525	\$525	\$5,319
5065-4600-0000 Rural Roads Sealed - WIP	Upgrade	\$60	\$1,850	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$7,910
5260-4600-0000 Footpath Construction -WIP	Upgrade	\$90	\$67	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$877
5360-4600-0000 Flood Mitigation - Structures/Drainage	New	\$0	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$800
	need	\$3,909	\$4,926	\$3,735	\$3,585	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$37,067
	budget	\$3,370	\$4,668	\$3,312	\$3,412	\$3,312	\$3,312	\$3,292	\$3,292	\$3,292	\$3,292	\$34,554
	gap	-\$540	-\$258	-\$423	-\$173	-\$173	-\$173	-\$193	-\$193	-\$193	-\$193	-\$2,513

Appendix C Affordable Scenario - Projected 10 year Capital Works Program (LTFP)

Affordable Scenario - Capital Works Forecast (i.e. what is funded in the Long-term Financial Plan)

Asset	Work Type	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
		Year 1 \$000	Year 2 \$000	Year 3 \$000	Year 4 \$000	Year 5 \$000	Year 6 \$000	Year 7 \$000	Year 8 \$000	Year 9 \$000	Year 10 \$000	
1060-4610-0000 Depot Purchases	Upgrade	\$0	\$40	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$240
5020-4600-0000 Urban Roads Construction - WIP	Upgrade	\$114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$114
5040-4600-0000 Regional Roads - WIP	Upgrade	\$385	\$384	\$775	\$625	\$525	\$525	\$525	\$525	\$525	\$525	\$5,319
5040-4600-0000 Regional Roads - WIP	Renewal	\$623	\$590	\$175	\$425	\$425	\$425	\$425	\$425	\$425	\$425	\$4,363
5065-4600-0000 Rural Roads Sealed - WIP	Upgrade	\$60	\$1,850	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$7,910
5065-4600-0000 Rural Roads Sealed - WIP	Renewal	\$1,296	\$950	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$550	\$6,646
5100-4600-0000 Culvert Construction - WIP	Renewal	\$85	\$0	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$405
5110-4600-0000 Unsealed Rural Roads - WIP	Renewal	\$717	\$727	\$747	\$747	\$747	\$747	\$727	\$727	\$727	\$727	\$7,340
5260-4600-0000 Footpath Construction -WIP	Upgrade	\$90	\$67	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$877
5265-4600-0000 Kerb & Gutter - WIP	Renewal	\$0	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$60	\$540
5360-4600-0000 Flood Mitigation - Structures/Drainage	New	\$0	\$0	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$800
		\$3,370	\$4,668	\$3,312	\$3,412	\$3,312	\$3,312	\$3,292	\$3,292	\$3,292	\$3,292	\$34,554

Appendix D Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AM Plan	Asset management plan
ASC	Annual service cost
CRC	Current replacement cost
DA	Depreciable amount
DRC	Depreciated replacement cost
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
RV	Residual value
SoA	State of the Assets
WDCRD	Written down current replacement cost

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 category

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

Asset class

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

Asset condition assessment

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

Asset hierarchy

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

Asset management (AM)

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

Asset renewal funding ratio

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

Average annual asset consumption (AAAC)*

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

Borrowings

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

Capital expenditure

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

Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new

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

Capital expenditure - renewal

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

Capital expenditure - upgrade

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

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition.

Capitalisation threshold

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

Carrying amount

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

Class of assets

See asset class definition

Component

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

Core asset management

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

Cost of an asset

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

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

Current replacement cost (CRC)

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

Deferred maintenance

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

Depreciable amount

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

Depreciated replacement cost (DRC)

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

Depreciation / amortisation

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

Economic life

See useful life definition.

Expenditure

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

Expenses

Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

Fair value

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

Financing gap

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

Heritage asset

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

Impairment Loss

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

Infrastructure assets

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

Investment property

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

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

Key performance indicator

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

Level of service

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

Life Cycle Cost *

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

Life Cycle Expenditure

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

Loans / borrowings

See borrowings.

Maintenance

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

- **Planned maintenance**

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

- **Reactive maintenance**

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

- **Specific maintenance**

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

- **Unplanned maintenance**

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

Maintenance expenditure *

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

Materiality

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

Modern equivalent asset

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

Net present value (NPV)

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

Non-revenue generating investments

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

Operations

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

Operating expenditure

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

Operating expense

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

Operating expenses

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

Operations, maintenance and renewal financing ratio

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

Operations, maintenance and renewal gap

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

Pavement management system (PMS)

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

PMS Score

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

Rate of annual asset consumption *

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

Rate of annual asset renewal *

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

Rate of annual asset upgrade/new *

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

Recoverable amount

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

Recurrent expenditure

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

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal

See capital renewal expenditure definition above.

Residual value

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

Revenue generating investments

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

Risk management

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

Section or segment

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

Service potential

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

Service potential remaining

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

Specific Maintenance

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

Strategic Longer-Term Plan

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

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

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

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

Value in Use

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

Source: IPWEA, 2009, AIFMG Glossary