LACHLAN SHIRE
COUNCIL
Wiradjuri Country

ASSET MANAGEMENT PLAN 2022

TRANSPORT

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V1.11	May 2021	Template	IPWEA		
V1.2	November 2021	LSC Transport	B McBean	ELT	
V1.3	June 2022	Corrected names of external stakeholders. Executive summary updated to reflect current total asset value	B McBean	OMT	

Contents

1.0 Executive summary

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 10 year planning period. The AM Plan links to a Long-Term Financial Plan.

1.2 Asset Description

This plan covers the infrastructure assets that provide transport and pedestrian facilities.

The Transport network comprises:

- Roads (sealed and unsealed)
- Kerb & gutter
- Footpaths
- Bridges
- Other road infrastructure (e.g. guardrails, roundabouts)

The above infrastructure assets have replacement value estimated at $495M.

1.3 Levels of Service

The allocation in the planned budget is insufficient to continue providing existing services at current levels for the planning period.

The main service consequences of the Planned Budget are:

- Existing assets are likely to slowly decline in their condition
- Some new assets will be acquired or constructed each year
- Additional funds for renewals will be required in order to maintain the level of service

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Change in population – this has been slowly declining over many years
- Increase in size/weight of trucks and farm equipment
- Increase in freight transport passing through the shire

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- Monitor usage of road network e.g. using traffic counters. Plan for upgrades or downgrades as utilisation of roads changes
- Monitor use of bridges. Where necessary plan for bridge upgrades or replacements

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for the Transport group is estimated as $143M or $14.3M on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $129M or $12.9M on average per year as per the Long-Term Financial plan or Planned Budget. This is 90% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for [Enter Asset Group] leaves a shortfall of $1.4M on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets

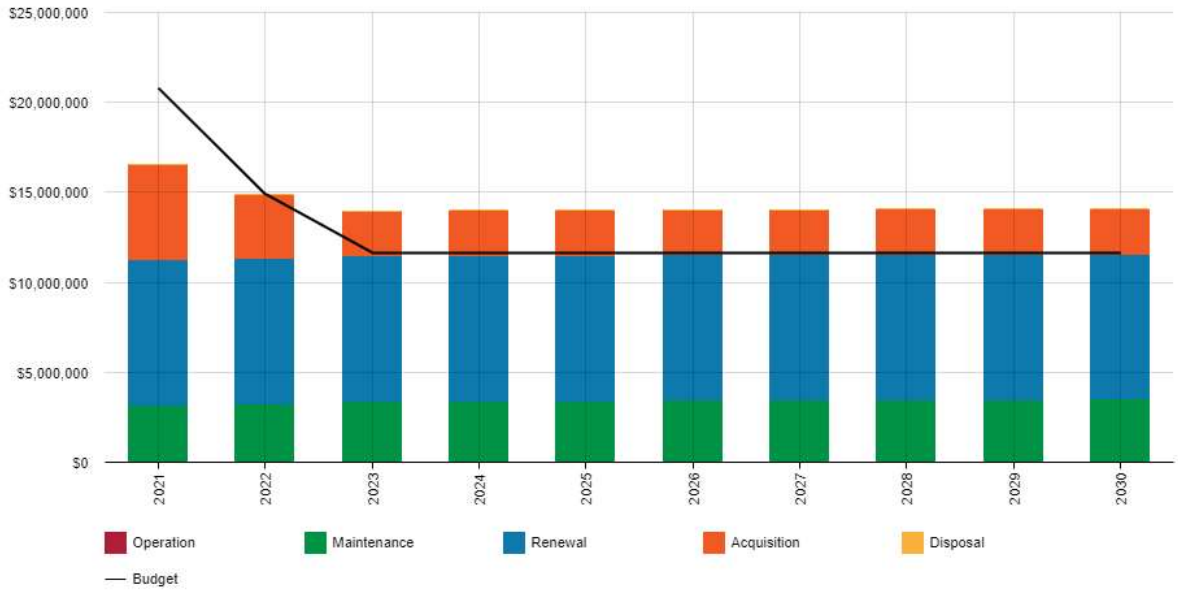


Figure Values are in current dollars.

We plan to provide Transport services for the following:

- Operation, maintenance, renewal and acquisition of roads, bridges, kerb & gutter and footpaths to meet service levels set by Lachlan Shire Council in annual budgets
- Asset renewals within the 10 year planning period as per the schedule
- Asset acquisitions carefully selected as per Community Strategic Plan and Management Plans for individual sites or asset groups

1.6.2 What we cannot do

We currently do not allocate enough budget to sustain these services at the existing standard, with a gradual decrease in asset condition over years. Works and services that cannot be provided under present funding levels are:

- Adding substantial new assets (as opposed to renewing existing ones)

(If available funds can be increased e.g. by a Special Rate Variation, it is possible to acquire new assets).

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Only a small provision for unexpected events requiring additional expenditure. This means overspending is a likelihood in some years
- We will not be able to respond to increases in community expectations with current budget
- There is insufficient budget to renew assets as they are due for replacement in some years (e.g. 2027 and 2029). The renewal program will need to be adjusted to match the budget or budget changed

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

- Prioritising the most critical renewals
- Not acquiring more new assets than the plan allows for

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- The life, value and condition data in the asset register is reasonably accurate
- The current annual budget is expected to remain similar in future years (but adjusted for inflation)
- No significant changes in population levels or facility demands
- All values are in current day dollars

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

The Asset Register was used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on an uncertain level of confidence information. That is, we do not have detailed or accurate data on age for many assets.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- Verify unit rates for road assets (e.g. cost per square metre for bitumen, gravel etc.)
- Verify lifetime data for the Transport asset group
- Continued community consultation to determine the best allocation of resources

- Improve links between Asset management Plan and Council's Long Term Financial Plan

2.0 Introduction

2.1 Background

This AM Plan communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The AM Plan is to be read with other asset management documents. This includes the Asset Management Policy 2022 and Asset Management Strategy 2022, along with other key planning documents:

- Long term financial plan
- Community Strategic Plan 2017-2026
- Delivery Program 2022 to 2026

Lachlan Shire Council is working towards integration and further implementation of Asset Management Plans, Strategic Plans to align with the Long Term Financial Plan. Senior management are committed to improving Council's asset management performance. The infrastructure assets covered by this AM Plan include Roads (sealed and unsealed), Kerb & gutter, Footpaths, Bridges and other road infrastructure (e.g. guardrails). For a detailed summary of the assets covered in this Plan refer to Table in Section 5.

These assets are used to provide transport services to the community.

The infrastructure assets included in this plan have a total replacement value of $460M.

Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Councillors and Mayor	responsible for adopting the policy and ensuring that sufficient resources are applied to manage the assets.
General Manager	has overall responsibility for developing an asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within Council
Director Infrastructure Services	responsible for implementing asset management systems, policies and procedures
Area managers and staff	responsible for the management of assets within the area of responsibility as determined under asset management plans

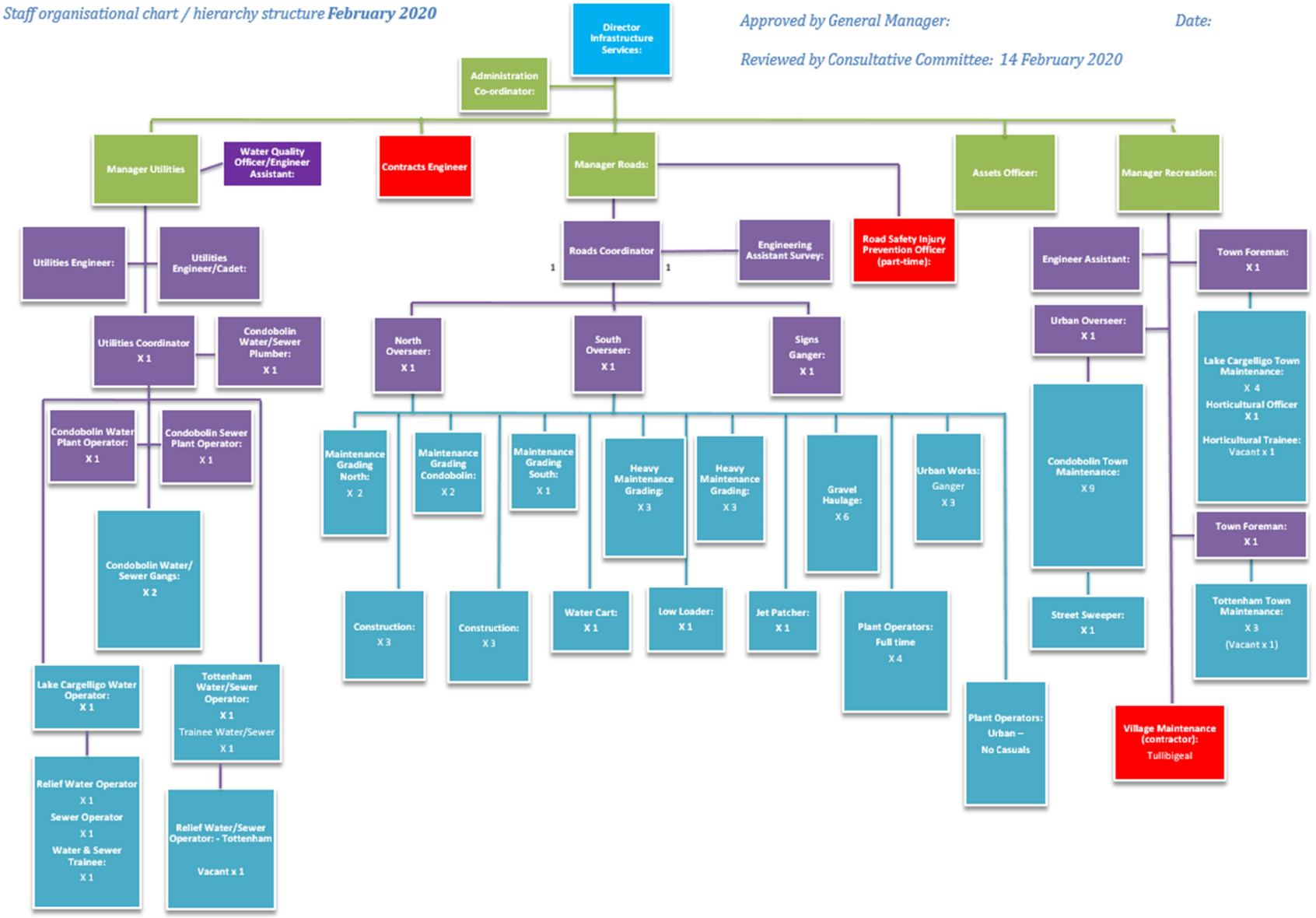
Our organisational structure for service delivery from infrastructure assets is detailed below. The Transport section is show magnified on the subsequent page for clarity.

Lachlan Shire Council – Infrastructure Services Department

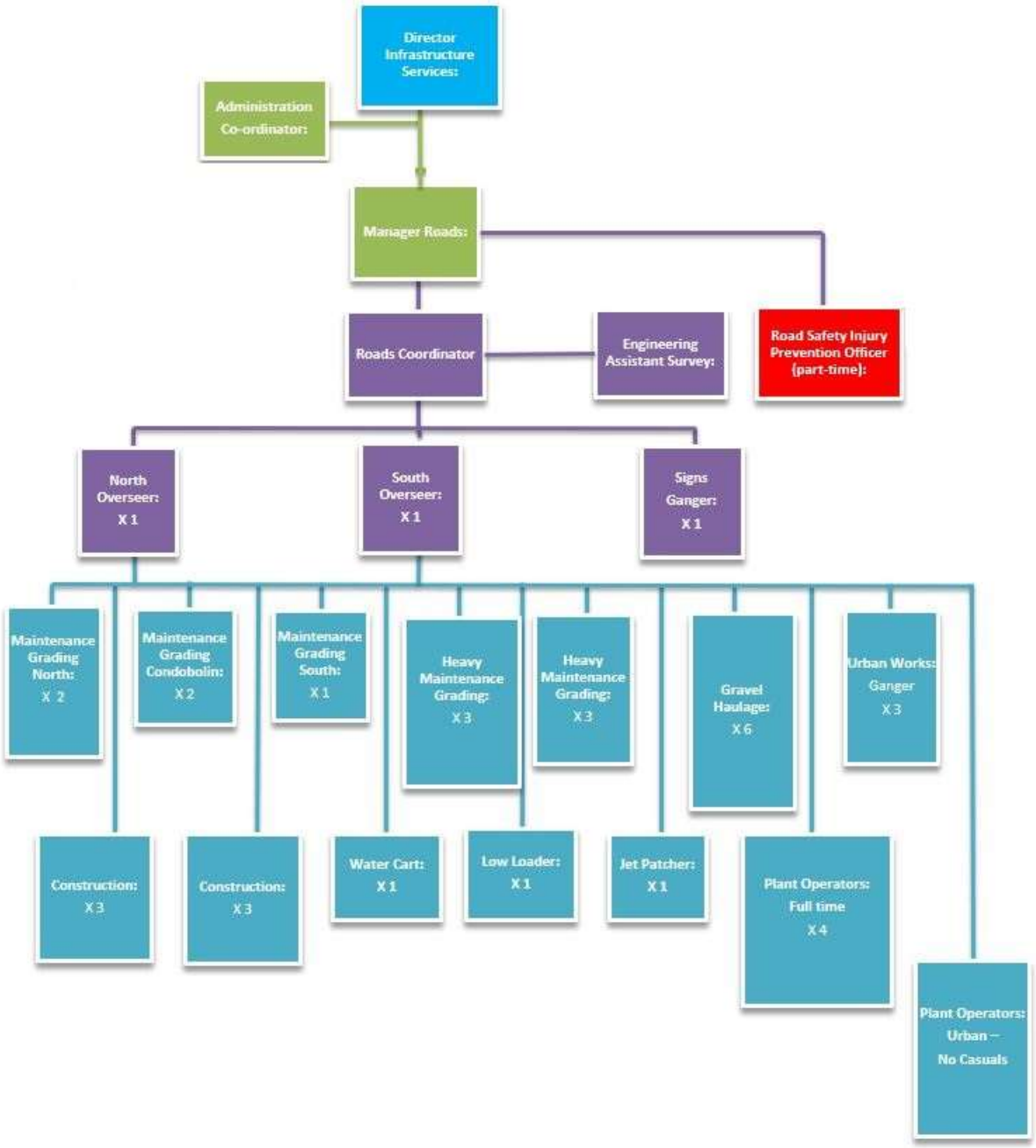
Staff organisational chart / hierarchy structure ***February 2020***

Approved by General Manager: *Date:*

Reviewed by Consultative Committee: 14 February 2020



LACHLAN SHIRE COUNCIL



2.2 Goals and Objectives of Asset Ownership

Our goal for 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
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

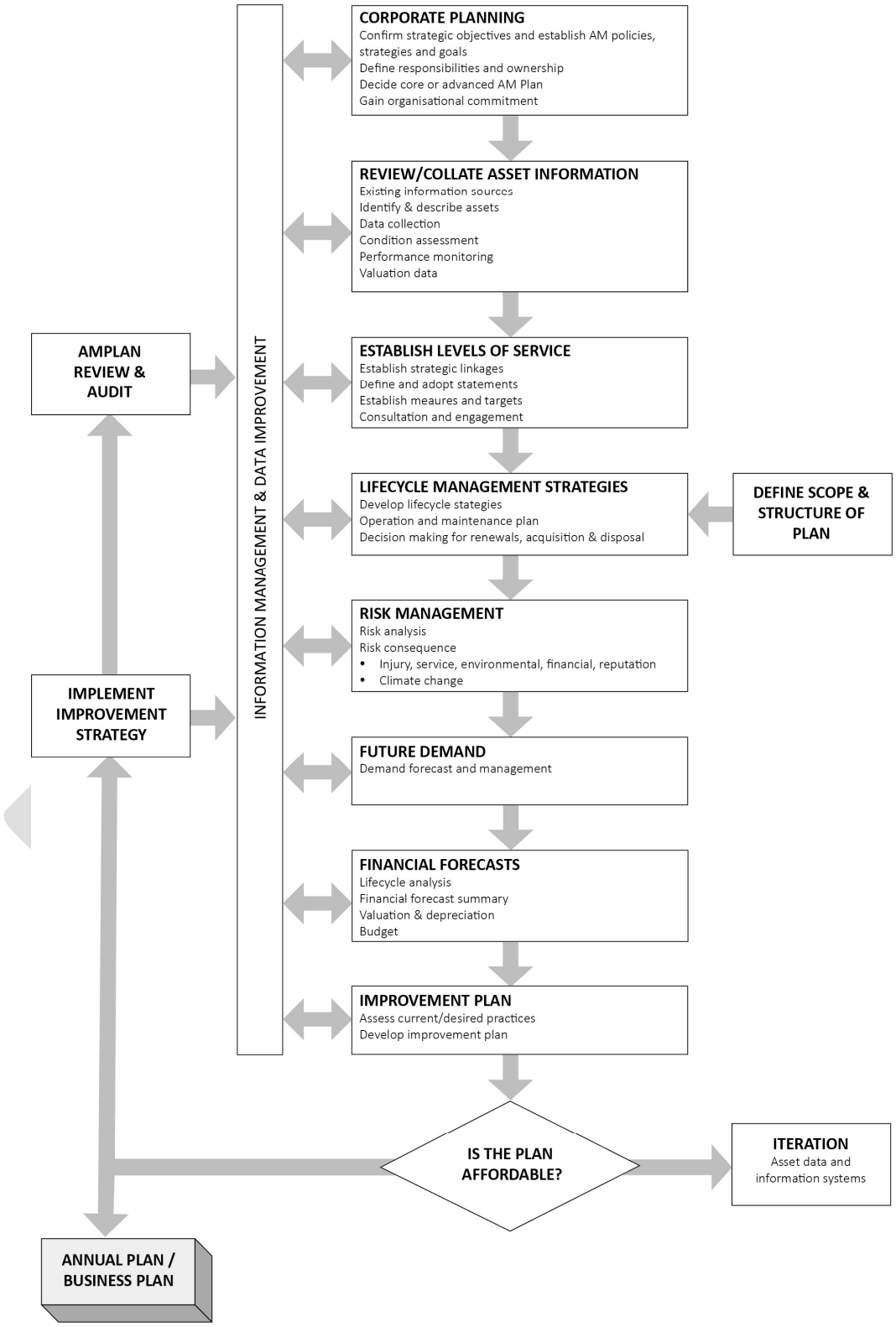
- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

A road map for preparing an AM Plan is shown below.

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology

Road Map for preparing an Asset Management Plan

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



3.0 Levels of service

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the Council. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

Management Plans have recently been developed or are scheduled for many assets sites or asset groups. These are gradually being implemented as successful grant applications are obtained. These plans will be included in future revisions of AM Plans. It is expected that the Management Plans will impact some areas of budgeting and renewal, such as Council's annual Development Plan.

3.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Council's vision, mission, goals and objectives.

Our vision is:

Lachlan Shire Council's vision for the future is to be a progressive, vibrant and prosperous community where families come to stay and enjoy a relaxed, healthy way of life and community spirit. [3]

Our mission is:

To engage the community, providing and delivering progressive services whilst implementing a long term strategic plan leading to the social and economic benefit of the community.

Strategic goals have been set by the Council. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

[3] Council website www.lachlan.nsw.gov.au – retrieved June 2021

Table 3.2: Goals and how these are addressed in this Plan [4]

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Improved transport networks that meet community and business needs	Roads and related infrastructure suitable for the growing transport needs of the community	Expectations are greater than current budget allows. If possible, allocate sufficient budget for acquisition of new relevant assets. Management Plans checked for details and implemented
Improved Pedestrian and Cycle paths	Upgrade footpaths where existing are damaged or unsuitable Provide new paths in strategic areas	Expectations are greater than current budget allows. With community consultation, identify appropriate areas for improvements. This may necessitate reduction in some other facilities
Upgrade Street lighting	Upgrade to LED lighting to save electricity costs Better lighting in some areas	Not currently addressed

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Transport service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
NSW Local Government Act 1993 and Regulation 2021	Roles and responsibilities of Councils. Includes preparation of Strategic Plans
NSW Roads Act 2003 and Regulation 2018	Sets rules for management and maintenance of roads and related infrastructure
NSW Work Health & Safety Act 2011 and Regulation 2017	Employer to provide a safe work environment for staff

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,

[4] Lachlan Shire Council Community Strategic Plan 2017-2026

- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Gravel roads regularly graded and smooth to drive on	Customer Complaints and feedback	Customers wish roads are graded more frequently	Not expected to change
Potholes etc. quickly repaired on sealed roads	Customer Complaints and feedback	Adequate speed of response	Not expected to change
Roads of appropriate construction/ width to suit the traffic	Customer Complaints and feedback	Increasing demand for wider and "stronger" roads to suit heavier trucks and wider farm equipment	Demand for higher standard roads is expected to increase

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good is the service … what is the condition or quality of the service?

Function Is it suitable for its intended purpose …. Is it the right service?

Capacity/Use Is the service over or under used … do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Condition rating of the facilities	Condition assessment, done periodically e.g. inspection every few years	Most assets are in good or fair condition (refer condition graph in this plan)	No significant change – renewal budget is matched to the aging process
	Confidence levels		Medium (Professional judgement supported by data sampling)	Medium (Professional judgement supported by data sampling)
Function	Are the assets appropriate for the intended purpose?	Utilisation of facilities by community	Most facilities are appropriate for the purpose and aligned with community needs	Improving alignment with community needs due to implementation of Master Plans
	Confidence levels		Low (Professional Judgement with no data evidence)	Medium (Professional judgement supported by data sampling)
Capacity	Are the facilities sufficient for community needs	Utilisation of facilities by community	Facilities are sufficient for community needs	Most facilities expected to remain sufficient for community needs
	Confidence levels		Low (Professional Judgement with no data evidence)	Medium (Professional judgement supported by data sampling)

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Acquisition** – the activities to provide a 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. a new library).
- **Operation** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.

- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (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 provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.[5]

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	Wider bitumen seal on some roads	Does it meet the operational plan?	As per budget	Currently adequate
	Bitumen seal of some gravel roads	Does it meet the operational plan?	As per budget	Currently adequate
		Budget (average)	$2.8M	$2.8M
Operation	(Transport assets have minimal operational cost – most costs are maintenance)			
		Budget (average)	$0	$0
Maintenance	Repair potholes and other minor defects	Does it meet the operational plan?	As per budget	Currently adequate
	Routine grading of gravel roads	Does it meet the operational plan?	As per budget	Currently adequate
		Budget (average)	$3.4M	$3.4M
Renewal	Resurface old bitumen seals	Reseals being done in line with schedule	There is a backlog of reseals	Spend above the average renewal rate in order to fix the backlog

[5] IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
	Resheet gravel roads	Reheets being done in line with schedule	There is a backlog of resheets	Spend above the average renewal rate in order to fix the backlog
		Budget (average)	$6.7M	$8.1M
Disposal	Cost of removal or demolition	**Budget (average)**	Only minor demolition expected, covered in renewal budget	Only minor demolition expected, covered in renewal budget
		Budget (average)	$0	$0

Note: * Current activities related to Planned Budget
** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 Future demand

4.1 Demand Drivers

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

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

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

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 can include non-asset solutions, insuring against risks and managing failures.

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

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population change and movement	Several small towns in shire	Shift of population from smaller towns	Operational & maintenance costs will not change significantly	Not likely to affect plans. Some towns may have less traffic but won't affect maintenance costs
Increased heavy freight vehicles e.g. road trains	Many roads not suitable for roads trains, B-doubles etc.	More heavy vehicles	How will the change impact the service	Upgrade more roads from gravel to sealed Some bridges may need upgrade or replacement
Larger farm equipment needing to move along our roads	Farm equipment larger than some roads can safely accommodate	More and larger farm equipment	Roads need to be made wider Vegetation needs to be kept clear of vehicle lanes	Renewal plans to allow for road widening Will need greater budget for vegetation management

Grain stored on farm, transported at time of best profit	Some farms storing grain onsite	Increasing	Traditional way was to transport at harvest time i.e. in dry season. Transport at other times causes extra damage to roads	More budget will be needed for maintenance

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Transport to 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 for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.[6]

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region.

Risk and opportunities identified to date are shown in Table 4.5.1

[6] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Average temperatures	Current trend is 0.43° per decade in the region	Minimal impact on road infrastructure is expected	Ensure bitumen seals are suitable for hotter climates
Average rainfall	Average annual rainfall is slowly decreasing in the region	Less rainfall will impact availability of water for road construction and maintenance (out of town where farm dams are used)	Investigate construction of bores in suitable locations for road maintenance Investigate use of recycled water for road maintenance
Storms and severe weather events	Severe weather events are increasing	Increased damage to infrastructure	Roadside drainage designed to cope with increased runoff

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

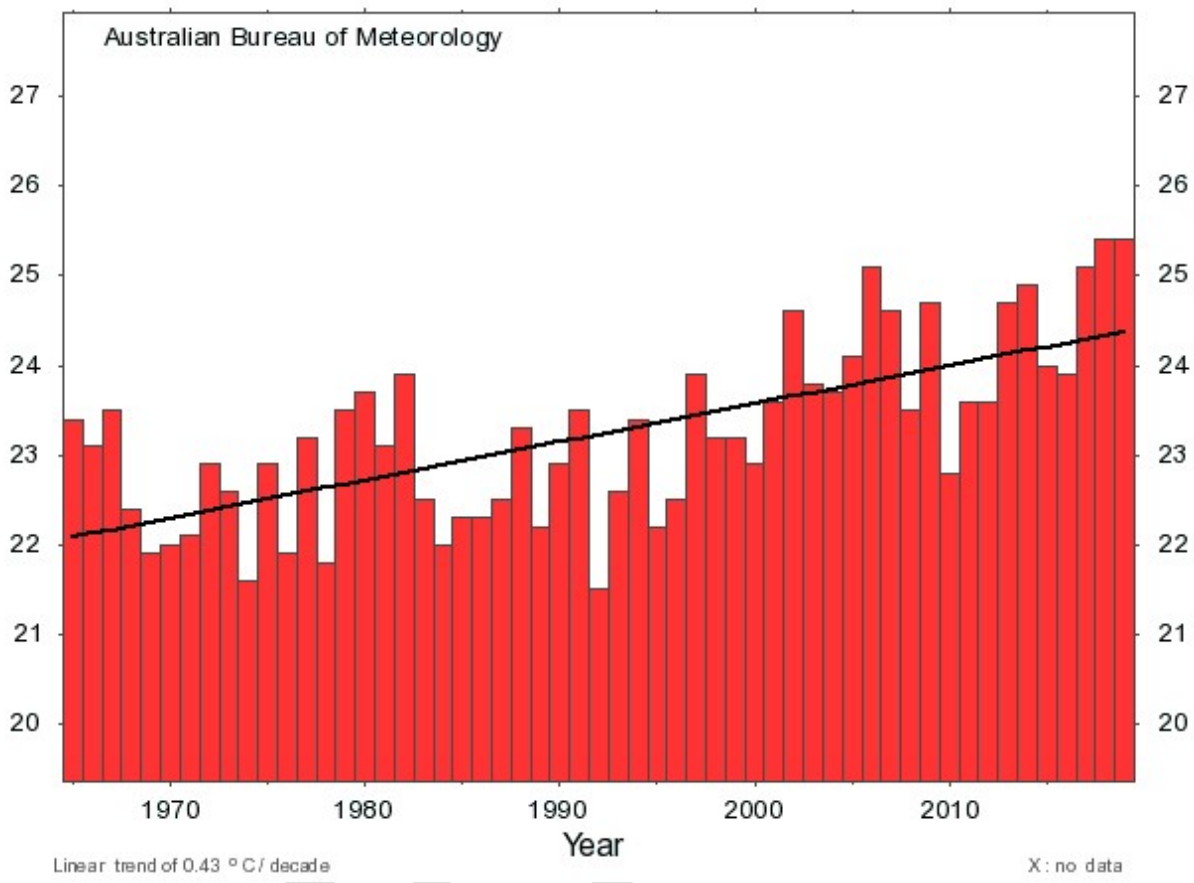
Table 4.5.2 summarises some asset climate change resilience opportunities.

Table 4.5.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
Road design and construction	Storms and severe weather	Drainage designed to accommodate increased storm intensity

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this AM Plan.

Figure 4.5.3 Mean temperature 1965-2019 at West Wyalong (nearest monitoring site)



5.0 Lifecycle management plan

The lifecycle management plan details how the Transport plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AM Plan are shown in Table 5.1.1.

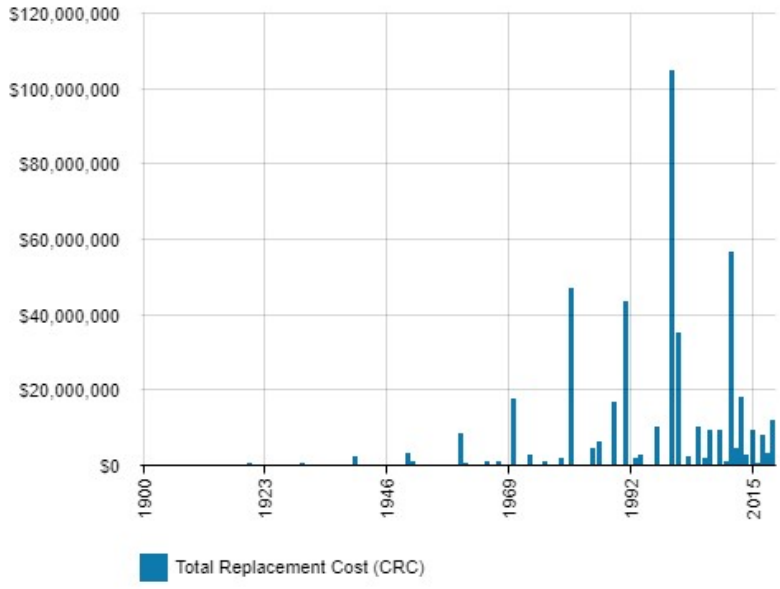
The greatest value within this asset group is pavements under sealed roads at around $230M. Bridges have the highest unit cost, some over $1M.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Bridges and major culverts	64 locations	$30,000,000
Pavements (sealed roads)	1076km	$236,000,000
Pavements (unsealed roads)	1127km	$37,000,000
Bitumen seals	1076km	$40,000,000
Kerb & gutter	98km	$14,700,000
Footpaths and bicycle paths	26km	$5,600,000
Street furniture (e.g. guardrail)	5704 items or metres	$1,400,000
Road formations	3915km	$131,000,000
TOTAL		**$495,700,000**

The age profile of the assets included in this AM Plan are shown in Figure 5.1.1.

Figure 5.11 – Asset age profile



All figure values are shown in current day dollars.

The graph above is derived from data held in Council's finance system. It has known inaccuracies. For example, the peak in 2011 represents the date when many assets were first entered into the finance system rather than their actual age. It is suspected that the other 4 large peaks are similar. These inaccuracies affect renewal plans, meaning renewals cannot be confidently be planned based on age. Instead, asset condition is the only reliable means to estimate timing of renewal expenditure.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. 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
Sealed rural roads	Many roads have pavement and bitumen seal that is too narrow for modern heavy vehicles
Nerathong bridge on Gipps Way	Too narrow for road trains to pass safely (planned replacement in 22-23)

The above service deficiencies were identified by engineering assessment.

5.1.3 Asset condition

Condition is currently monitored by periodic asset revaluations by a contractor and frequent condition inspections by Council staff.

Condition is measured using a 1 – 5 grading system[7] as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

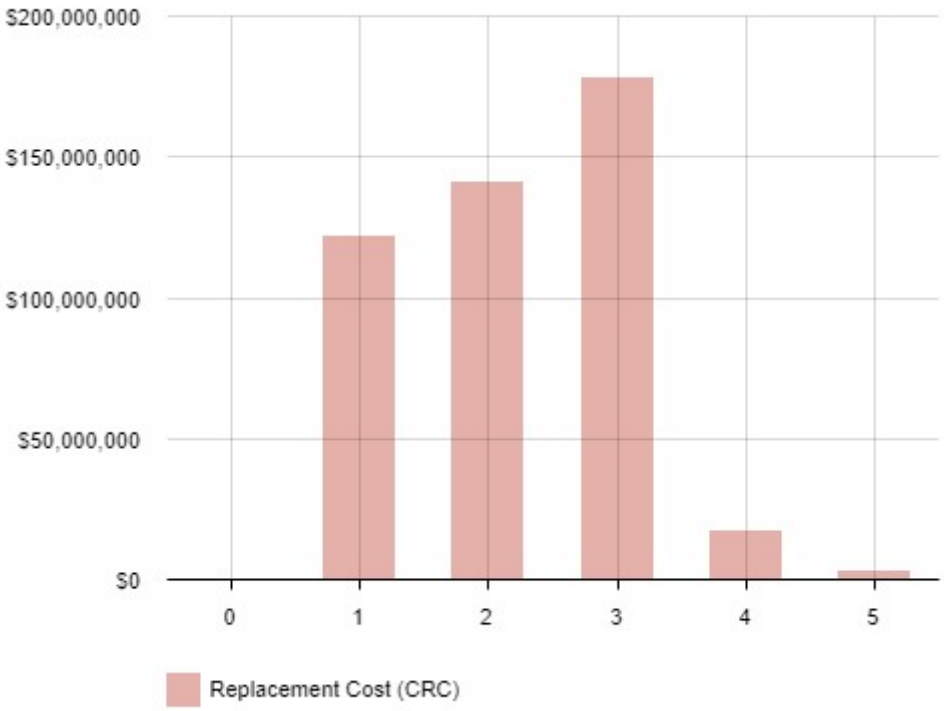
Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	**Very Good**: free of defects, only planned and/or routine maintenance required
2	**Good**: minor defects, increasing maintenance required plus planned maintenance
3	**Fair**: defects requiring regular and/or significant maintenance to reinstate service
4	**Poor**: significant defects, higher order cost intervention likely
5	**Very Poor**: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 5.1.3.

[7] IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Figure 5.1.3: Asset Condition Profile



The largest asset group with a poor condition is bitumen seals. It is likely Council will have to increase the annual reseal budget in future years.

All figure values are shown in current day dollars.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget $
2020-2021	$2,857,760
2021-2022	$3,187,650
2022-2023	$3,285,796

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

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

5.2.1 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 service hierarchy is shown is Table 5.2.2.

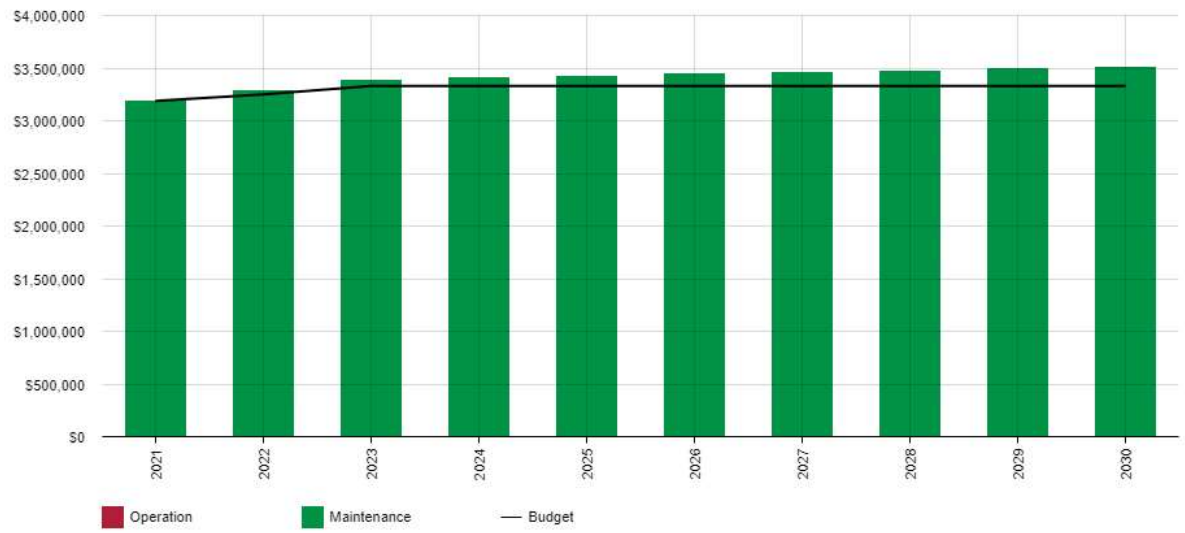
Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Bridges and major culverts	Maintain in a safe condition
Pavements (sealed roads)	Maintain to provide a smooth ride
Pavements (unsealed roads)	Maintain to provide a smooth ride
Bitumen seals	Maintain to protect the pavement underneath
Kerb & gutter	Maintain to provide designed function i.e. convey water into drains
Footpaths and bicycle paths	Maintain in a safe condition
Street furniture (e.g. guardrail)	Maintain in a safe condition
Road formations	Maintain to support the road pavement (normally minimal maintenance required)

5.2.2 Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

Forecast Operation and Maintenance costs are closely matched with the budget. This has occurred in most recent years. Therefore we can expect the level of service to remain consistent. However as new assets are added to the group, additional funds will be required to maintain them. Without a proportionate increase in the budget, the level of service will slowly decline.

Deferred maintenance is work that is identified for maintenance activities but unable to be completed due to available resources. At time of writing there are no significant deferred maintenance activities to be undertaken.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is

considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed in 2028.[8]

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Bridges and major culverts	Bridges 100 years, culverts 60-80 years
Pavements (sealed roads)	80 years
Pavements (unsealed roads)	17.5 years
Bitumen seals	17 years
Kerb & gutter	70 years
Footpaths and bicycle paths	55 years
Street furniture (e.g. guardrail)	50-60 years
Road formations	unlimited

The estimates for renewals in this AM Plan were based on the asset register.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or

[8] Moloney revaluation report 2018

- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).[9]

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[10]

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Safety risk or legislative requirement	20%
Financial benefit i.e. replace with more efficient or economic item	10%
Condition of the asset	50%
Benefit to community e.g. replacement gives better service	20%
Total	**100%**

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. A detailed summary of the forecast renewal costs is shown in Appendix D.

Deferred renewal increases risks to Council. Refer to Section 6 for details.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Council.

[9] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[10] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1.

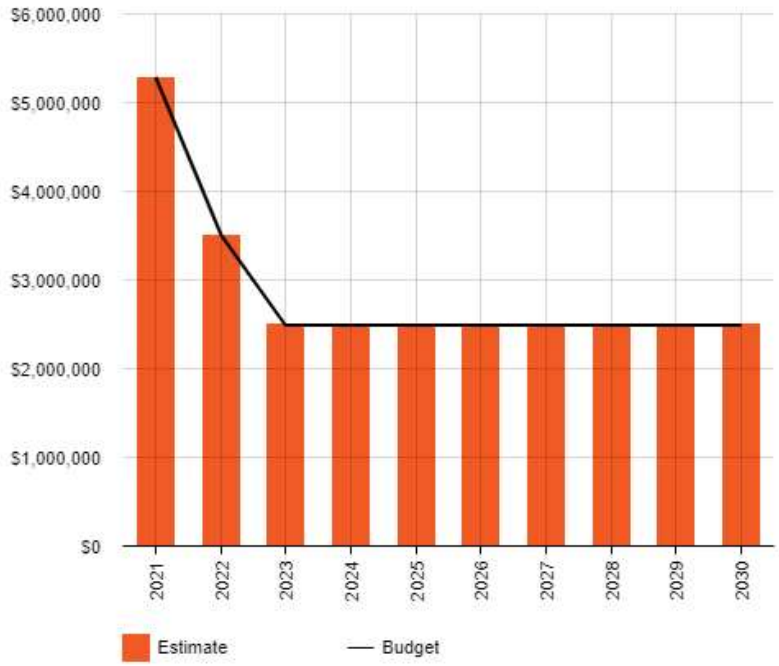
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Community demands	60%
Legislative changes	20%
Financial benefits e.g. improved efficiency	20%
Total	**100%**

5.5.2 Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised / summarized in Figure 5.5.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix A.

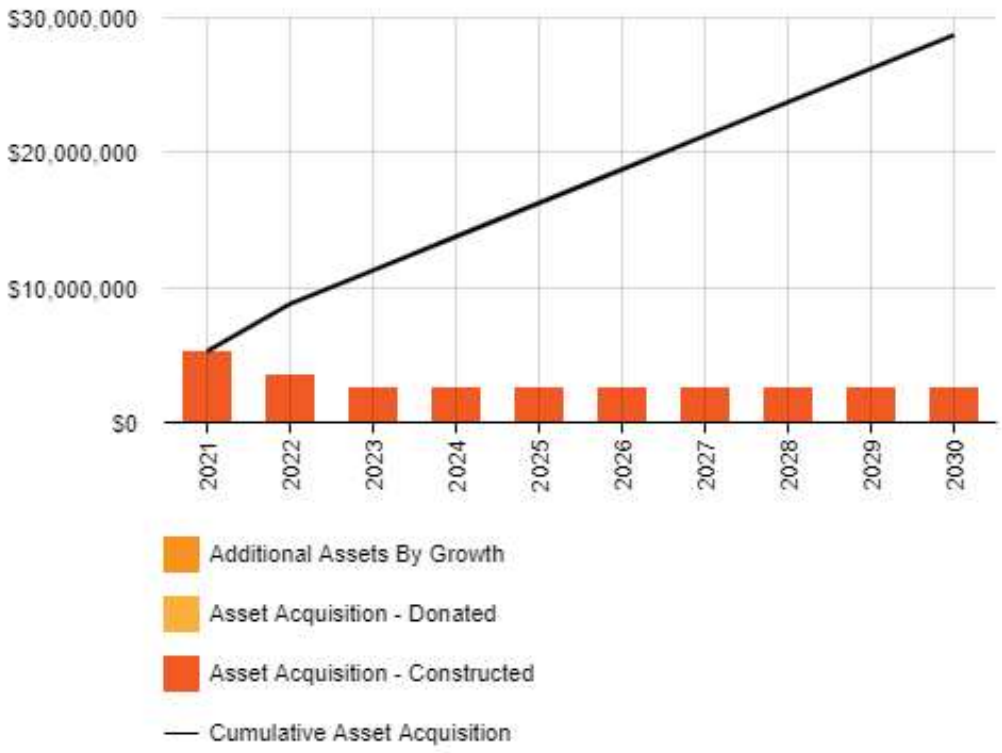
Figure 5.5.1: Acquisition (Constructed) Summary



All figure values are shown in current day dollars.

When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 5.5.2.

Figure 5.5.2: Acquisition Summary



All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

Lachlan Shire Council has been successful in obtaining grant funding for a range of new assets in recent years. This, in addition to the own fund budget is increasing the total value of the Transport asset group. Unless there is a corresponding increase in the Operation and Maintenance budgets, the level of service is likely to decline over the long term. Further, eventually the grant funded assets purchased in recent years will need replacement. Council's renewal budget is only sufficient for existing assets. These additional assets will cause a renewal budget shortage in later years. Council will need to carefully consider the total ownership costs when considering acquisition of new assets, even when "free money" is available to purchase them.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and

disposal are shown in Table 5.6. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table 5.6. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

Table 5.6: Assets Identified for Disposal

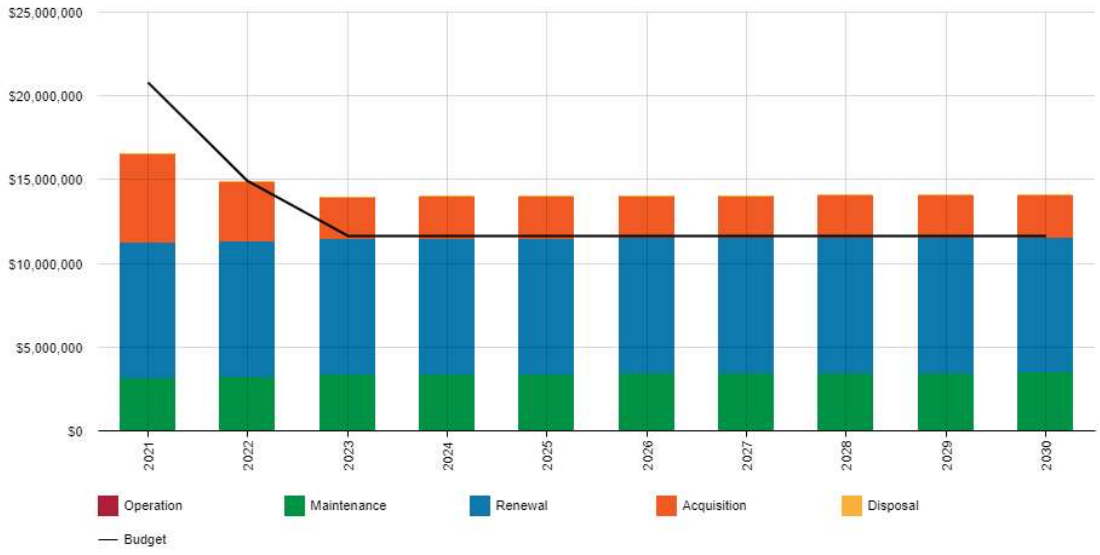
Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
No planned disposals at time of writing	n/a	n/a	Any disposal cost to be rolled into asset renewal cost	$0

5.7 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.7.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.7.1: Lifecycle Summary



All figure values are shown in current day dollars.

6.0 Risk management planning

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'[11].

An assessment of risks[12] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Significant bridges	Structural failure	Bridge failure can make access impossible to some areas or cause substantial detours

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

[11] ISO 31000:2009, p 2

[12] At June 2022 an overall risk assessment for transport assets has commenced but not been completed

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

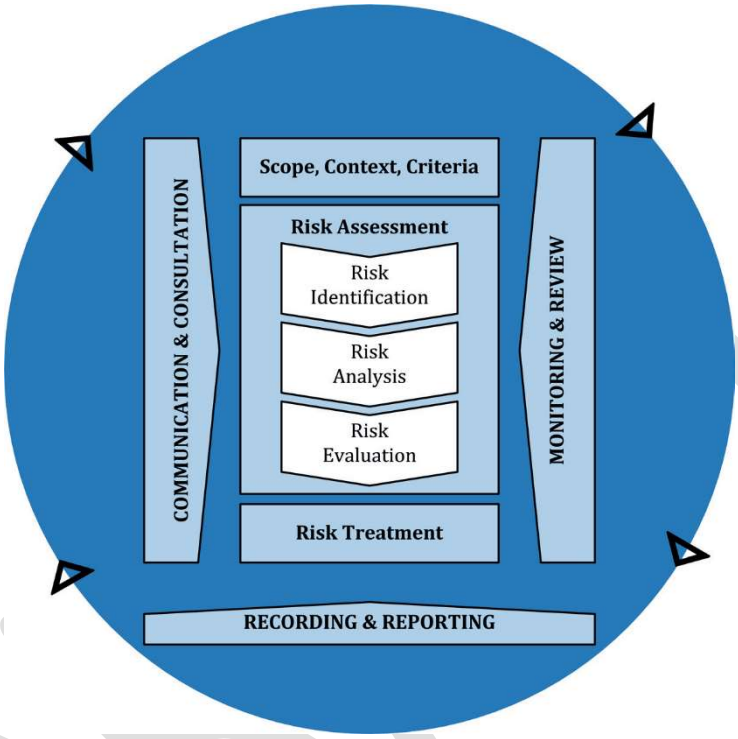


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks[13] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected

[13] At June 2022 an overall risk assessment for transport assets has commenced but not been completed

treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the Council.

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Bridges	Bridge failure due to overload	High	Replacement or upgrade of bridges that are not suitable for the heavy vehicles that use them	Low	Varies – up to $3M for larger bridge replacement
Gravel roads	Premature failure due to weather and/or high usage	High	Upgrade to sealed road	Low	$20k per km

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

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Our current measure of resilience is shown in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to ensure service delivery resilience.

Table 6.3: Resilience Assessment

Threat / Hazard	Assessment Method	Current Resilience Approach
Changing community needs	Engage with community, ensure services and facilities are consistent with expectations	Low – we are not currently monitoring and assessing changing community needs
Climate change	Asses against benchmarks and guidelines	Medium – little assessment being done. Some facilities are unlikely to be affected significantly but further work needed e.g. use climate hardy plant species, more efficient irrigation

6.4 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 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:

- Condition and functional inspections are not as frequent as desirable
- Acquiring new assets will cause further reductions in level of service due to budget only covering cost to run existing asset base

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Reduction in level of service and customer satisfaction when renewals and upgrades are deferred

6.4.3 Risk trade-off

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

- Short to medium term closure of roads or bridges until repairs can be completed
- Impact to Council reputation when facilities are not available

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 Financial summary

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AM Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[14] 83%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 83% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget is illustrated in Appendix D.

7.1.2 Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is $11.5M average per year.

The proposed (budget) operations, maintenance and renewal funding is $10.1M on average per year giving a 10 year funding shortfall of $1.4M per year. This indicates that 87% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

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

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.3 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

Forecast costs are shown in2021 dollar values.

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2021	$5,284,467	$0	$3,187,650	$12,330,424	$0
2022	$3,501,200	$0	$3,285,796	$8,169,466	$0
2023	$2,492,248	$0	$3,388,534	$5,815,244	$0
2024	$2,492,248	$0	$3,405,232	$5,815,244	$0
2025	$2,492,248	$0	$3,421,930	$5,815,244	$0
2026	$2,492,248	$0	$3,438,628	$5,815,244	$0
2027	$2,492,248	$0	$3,455,326	$5,815,244	$0
2028	$2,492,248	$0	$3,472,024	$5,815,244	$0
2029	$2,492,248	$0	$3,488,722	$5,815,244	$0
2030	$2,492,248	$0	$3,488,722	$5,815,244	$0

7.2 Funding Strategy

The proposed funding for assets is outlined in the Entity's budget and Long-Term financial plan.

The financial strategy of the entity determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at fair value in accordance with AASB 116[15].

Replacement Cost (Current/Gross)	$495,700,000
Depreciable Amount	$364,700,000
Depreciated Replacement Cost[16]	$319,146,000
Depreciation	$8,090,919

7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are constructed.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

- The life, value and condition data in the asset register is reasonably accurate
- The current annual budget is expected to remain similar in future years (but adjusted for inflation)
- No significant changes in population levels or facility demands
- All values are in current day dollars

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[17] in accordance with Table 7.5.1.

[15] AASB (Australian Accounting Standards Board) 116 – Property Plant & Equipment

[16] Also reported as Written Down Value, Carrying or Net Book Value.

[17] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Table 7.5.1: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	E	Little data held or research done
Growth projections	B	From ABS data
Acquisition forecast	C	Based on 2021-22 budget
Operation forecast	C	Based on 2021-22 budget
Maintenance forecast	C	Based on 2021-22 budget
Renewal forecast - Asset values	C	To be reviewed next revaluation
- Asset useful lives	D	To be reviewed next revaluation
- Condition modelling	D	Errors noted in condition data
Disposal forecast	B	Disposal costs expected to be minimal and included in cost of asset replacement or renewal

The estimated confidence level for and reliability of data used in this AM Plan is considered to be LOW.

8.0 Plan improvement and monitoring

8.1 Status of Asset Management Practices[18]

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is Council's financial asset register "Authority".

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is Council's asset register held in the financial accounting system "Authority".

8.2 Improvement Plan

It is important that an entity recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Condition data for some assets is incorrect e.g. an item 2 years old with condition 5. Ensure condition data is correctly recorded	Asset officer	Work with asset valuer	2 years
2	Some assets are underutilised. Community consultation should be undertaken and some assets closed or have purpose reassigned where appropriate	Director, asset manager	Community consultation	2 years
3	AM Plan needs to be better linked with long term financial plan	Senior management	Work with finance staff	2 years
4	Review lifetimes for all types of asset in this asset class	Asset officer	Work with asset valuer	2 years
5	Asses resilience to risk factors for each asset group	Asset officer	Work with asset manager	2 years
6	A revaluation every five years	Asset officer	Often done by a contractor	2 years
7	Greater detail of planned acquisitions	Senior management	More detail required in the delivery program	2 years
8	Where possible, provide detail of expected grant funded acquisitions	Senior management	More detail required in the delivery program	2 years

[18] ISO 55000 Refers to this as the Asset Management System

8.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating in 2025.

8.4 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

9.0 References

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- LSC Asset Accounting Policy 2021
- LSC Long Term Financial Plan
- LSC Community Strategic Plan 2017-2026
- LSC Delivery Program 2022-2026

10.0 Appendices

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

Most acquisitions are dependent on grant funding. Timing of such funding is variable and often unknown in advance. Therefore it is not possible to have an accurate forecast. Instead, Council maintains a list of desirable projects that are matched against grant criteria.

A.2 – Acquisition Project Summary

The project titles included in the lifecycle forecast are included here. The table includes both acquisition and renewal projects. Those which are wholly or substantially new acquisitions are highlighted in blue.

LACHLAN SHIRE COUNCIL Capital Works Program for 2021.2022 Budget - as at 110621				
	Delivery Plan			
	Proposed Budget 2021/2022	Forecast 2022/2023	Forecast 2023/2024	Forecast 2024/2025
07270 - Roads to Recovery Program Capital Works				
Sealed Roads Reconstruction/Seal	$250,000			
Resealing of sealed local roads (approx. 20k at average width 5m)		$500,000	$500,000	$500,000
Condobolin Primary School Precinct Safety (plus Fixing Local Roads)		$250,000	$0	$0
Officers Parade, Condobolin road reconstruction, kerb & guttering & stormwater	$400,000	$0	$0	$0
SR1411 Lachlan Valley Way 12km seal extension (RTR 10%, FCR 90%)		$50,000	$75,000	$0
SR1347 Albert Road 8km seal extension (RTR 10%, FCR 90%)		$50,000	$100,000	$0
Lake HV bypass stage 2		$828,509	$200,000	$0
William St/Lachlan St intersection - RTR	$489,000	$0	$0	$0
Foster Street, Lake Cargelligo reconstruction - RTR	$535,000	$0	$0	$0
Condobolin Freight Betterment - roadworks (Council contribution)	$314,295	$0	$0	$0
SR 120 Merribogie Road widening (RTR 10%, FLR 90%)	$140,000	$0	$0	$0
Gravel Resheets				
Ongoing resheeting to be allocated (TBA)		$450,000	$500,000	$500,000
To be allocated		$0	$753,509	$1,128,509
Roads to Recovery Program Totals	**$2,128,295**	**$2,128,509**	**$2,128,509**	**$2,128,509**
07300 - Footpaths & Bike Track Capital Works	$0			
Renewals of High Risk problem footpaths.		$187,620	$77,800	$92,000
Footpaths & Bike Tracks Totals	**$0**	**$187,620**	**$77,800**	**$92,000**
	*	*	*	*
07310 - Kerb & Gutter Capital Works				
Kerb & Gutter Capital Works (Program TBA)	$20,000	$20,000	$20,000	$20,000
Kerb & Gutter Totals	**$20,000**	**$20,000**	**$20,000**	**$20,000**
	*	*	*	*
07330 - Urban Streets Capital Works	$91,000			
Condobolin Primary School Precinct Safety Works (F.A.G.)	$1,200,000	$0	$0	$0
Urban Sts reconstruction - William/Lachlan/Busby Sts		$1,192,000	$1,316,000	$1,272,000
Urban Reseals - Program TBA	$200,000	$100,000	$100,000	$100,000
Foster Street, Lake Cargelligo	$408,000	$0	$0	$0
Condobolin School Precinct - Fixing Local Roads	$600,000	$0	$0	$0
Officers Parade - Fixing Local Roads		$0	$0	$0
Bathurst St - Denison to Melrose (subject to grant- BBRF)	$200,000	$550,000	$0	$0
Urban Streets Totals	**$2,699,000**	**$1,842,000**	**$1,416,000**	**$1,372,000**

07340 - Regional Roads Capital Works				
Renewals:				
Regional Roads Unallocated Reseals - Budget Only	$446,583	$438,023	$365,072	$1,282,782
Culvert renewals		$60,000	$60,000	$65,378
MR7513 Lake Cargelligo Rd shoulder resheeting		$400,000	$0	$0
MR57N Fifield Rd shoulder resheeting		$0	$200,000	$0
MR231 Wyalong Road widening (REPAIR program 50% RMS Block 50%)		$0	$0	$800,000
Bathurst St - Denison to Melrose (subject to grant- BBRF)		$500,000	$0	$0
Repair Grant Program - TBA		$0	$0	$70,000
MR461 Henry Parkes Way Shoulder Resheet and upgrade causeways		$0	$250,000	$0
Shoulder resheeting TBA		$0	$0	$500,000
MR377 Lachlan Valley Way Shoulder Resheet		$0	$120,000	$0
MR231 Wyalong Road Shoulder Resheet		$0	$231,000	$0
MR7514 Nyngan Rd gravel resheeting		$331,000	$400,000	$0
Heavy Patching Program:				
Heavy Patching Program TBA	$50,000	$50,000	$50,000	$0
Sealed Roads Reconstruction:				
MR57N Fifield Rd reconstruct & widen		$273,500	$161,098	$0
MR461 William Street, Condobolin intersection	$150,000	$0	$0	$0
Foster Street Lake Cargelligo reconstruction - Grant funded to be confirmed		$0	$0	$0
Land Acquisition MR57S Gipps Way	$900,000	$50,000	$50,000	$0
Sealed Roads Reconstruction 80% & Upgrade 20%:				
MR501 & MR371 Intersection (Fixing country rds. grant 85% RMS Block 15%)		$2,850,000	$0	$0
MR75NN The Bogan Way widening (FCR grant 90% RMS Block 10%)	$1,500,000	$0	$0	$0
MR7513 Lake Cargelligo Rd widening (Repair program 50% RMS Block grant 50%)		$800,000	$800,000	$0
MR57S Nerathong Bridge Replacement -FCR 85% & RMS Block 15%)	$2,155,000	$0	$0	$0
MR 57S Lachlan Valley Way ch 560 – 1300 (tourism precinct)	$750,000	$0	$0	$0
MR 57S Lachlan Valley Way ch 1300-2020 Smythes culvert (tourism precinct)	$3,500,000	$0	$0	$0
MR 57S Lachlan Valley Way ch 2700-3000 The Murie culvert (tourism precinct)	$1,200,000	$500,000	$0	$0
MR461 Henry Parkes Way intersections - Kiacatoo and Silo roads	$516,000	$0	$0	$0
Regional Roads Totals	**$11,167,583**	**$6,252,523**	**$2,687,170**	**$2,718,160**
07350 - Sealed Rural Roads Capital Works				
Local roads reseals - budget unallocated	$140,013	$140,013	$140,013	$140,013
SR 120 Merribogie Road widening (RTR 10%, FLR 90%)	$1,260,000	$0	$0	$0
SR1411 Lachlan Valley Way (FCR 90% RTR 10%)		$450,000	$600,000	$0
SR11347 Albert Road (FCR 90% RTR 10%)		$450,000	$900,000	$0
SRV Component - Edgeworks & Widen		$0	$0	$170,000
Sealed Rural Roads Totals	**$1,400,013**	**$1,040,013**	**$1,640,013**	**$310,013**
	*	*	*	*
07360 - Unsealed Rural Roads Capital Works				
Unsealed rural roads gravel resheeting, own source (SRV component)	$200,000	$200,000	$200,000	$200,000
Unsealed rural roads gravel resheeting (Evolution Mining component)			$138,000	
Unsealed Rural Roads Totals	**$200,000**	**$200,000**	**$338,000**	**$200,000**

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2021	$5,284,467	$0	$0
2022	$3,501,200	$0	$0
2023	$2,492,248	$0	$0
2024	$2,492,248	$0	$0
2025	$2,492,248	$0	$0
2026	$2,492,248	$0	$0
2027	$2,492,248	$0	$0
2028	$2,492,248	$0	$0
2029	$2,492,248	$0	$0
2030	$2,492,248	$0	$0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Transport assets typically have minimal operational costs. Most ongoing costs are considered as Maintenance.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2021	$0	$0	$0
2022	$0	$0	$0
2023	$0	$0	$0
2024	$0	$0	$0
2025	$0	$0	$0
2026	$0	$0	$0
2027	$0	$0	$0
2028	$0	$0	$0
2029	$0	$0	$0
2030	$0	$0	$0

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance forecasts are based on past experience and budgets. They are expected to remain similar over time, with modest increases as new assets are acquired or constructed.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2021	$3,187,650	$38,048	$3,187,650
2022	$3,250,390	$25,209	$3,288,438
2023	$3,329,670	$17,944	$3,392,927
2024	$3,329,670	$17,944	$3,410,871
2025	$3,329,670	$17,944	$3,428,815
2026	$3,329,670	$17,944	$3,446,759
2027	$3,329,670	$17,944	$3,464,704
2028	$3,329,670	$17,944	$3,482,648
2029	$3,329,670	$17,944	$3,500,592
2030	$3,329,670	$17,944	$3,518,536

Appendix D Renewal Forecast Summary

Renewals are based on condition and expected life. In some years the expected renewals considerably exceed the budget for those years.

D.1 – Renewal Forecast Assumptions and Source

Renewals are based on remaining life data in the asset register.

D.2 – Renewal Project Summary

Most years the renewals comprise many varying items. Therefore no renewal project summary is included in this AM Plan. The renewal plan below shows the first two years of the plan and the AM Plan includes a renewal schedule for the 10 year life of the plan.

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2021	$8,090,919	$12,330,424
2022	$8,090,919	$8,169,466
2023	$8,090,919	$5,815,244
2024	$8,090,919	$5,815,244
2025	$8,090,919	$5,815,244
2026	$8,090,919	$5,815,244
2027	$8,090,919	$5,815,244
2028	$8,090,919	$5,815,244
2029	$8,090,919	$5,815,244
2030	$8,090,919	$5,815,244

D.4 –Renewal Plan

Below is the first 2 years of the renewal report. A complete report for the 20 year plan is available.

Appendix E Disposal Summary

E.1 – Disposal Forecast Assumptions and Source

Disposal costs are assumed as zero. Any actual disposal costs incurred upon asset renewal or replacement will be rolled into the cost of the new assets.

E.2 – Disposal Project Summary

At the time of writing this AM Plan, no significant asset disposals are planned.

E.3 – Disposal Forecast Summary

Table E3 – Disposal Activity Summary

Year	Disposal Forecast	Disposal Budget
2021	$0	$0
2022	$0	$0
2023	$0	$0
2024	$0	$0
2025	$0	$0
2026	$0	$0
2027	$0	$0
2028	$0	$0
2029	$0	$0
2030	$0	$0

Appendix F Budget Summary by Lifecycle Activity

Budgets are based on the 2021-22 budget. No significant changes are expected over time.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2021	$5,284,467	$0	$3,187,650	$12,330,424	$0	$20,802,540
2022	$3,501,200	$0	$3,250,390	$8,169,466	$0	$14,921,056
2023	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2024	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2025	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2026	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2027	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2028	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2029	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162
2030	$2,492,248	$0	$3,329,670	$5,815,244	$0	$11,637,162