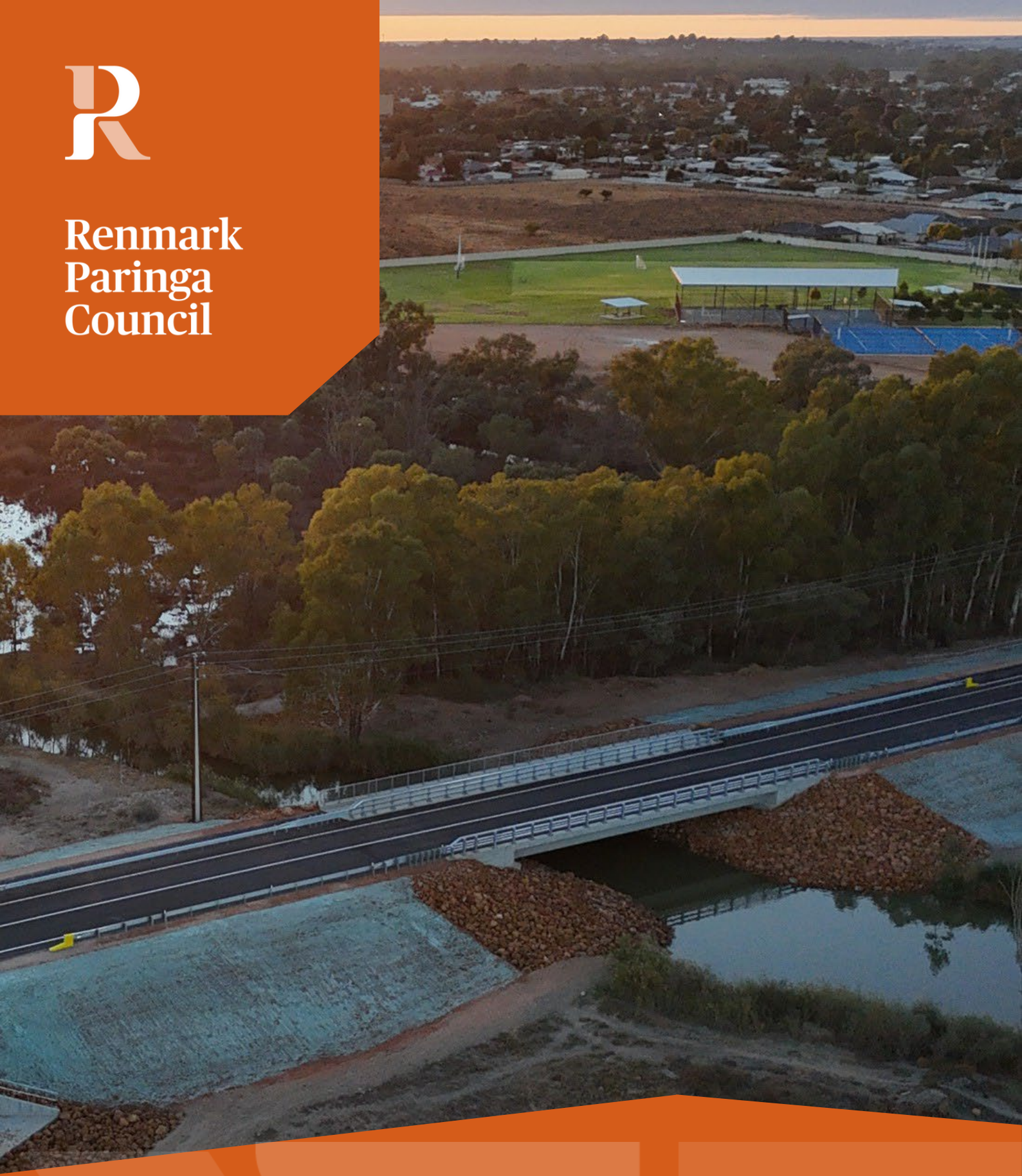
Renmark Paringa Council



Transport

Asset Management Plan

Document Control

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This Asset Management Plan may be used as a supporting document to inform Renmark Paringa's overarching Infrastructure and Asset Management Plan.

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1 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 commencing 1 July 2025. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the Transport assets within the towns of Renmark, Paringa, Lyrup and the rural road network interconnecting the towns and providing access to DIT roads and surrounding Councils. The plan also covers the road assets at Renmark Aerodrome.

The Transport Network comprises:

- Sealed Roads 315.2km
- Unsealed Roads & Unformed Roads 210.4km
- Road Reserves 58km
- Footpath Sealed 39.5km
- Footpath Unsealed 43.1km
- Shared Path 5.7km
- Kerb 98.8km
- Sealed Carparks 11
- Off-Road Carparks 15
- Airport Sealed Runway, Taxiway & Apron 6
- Airport Sheeted Runway 1
- Transport Lighting 3
- Local Area Traffic Management (LATM) Assets 1

The above infrastructure assets have replacement value estimated at $128,425,089 from the 1 July 2024 valuation[1]

1.3 Levels of Service

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

The main service consequences of the Planned Budget are:

- Road Rehabilitation will need to be extended out over several years
- Major Intersections have been identified as required upgrades in later stages of this AMP
- Footpath upgrades have not been included due to a constrained financial position

[1] *241014.01L007RA_Transport Asset 1 July 2024*

1.4 Future Demand

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

- Demand for increase in service levels
- Heavier vehicle requirements
- Climate Change
- Providing infrastructure to meet the growth demands for our community and region

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. Demand management will be considered in alignment with Council's Community Plan

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this (Asset Management Plan) 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 Network the demand based outlay is estimated as $35,530,374 or $3,553,037 on average per year.

1.6 Financial Summary

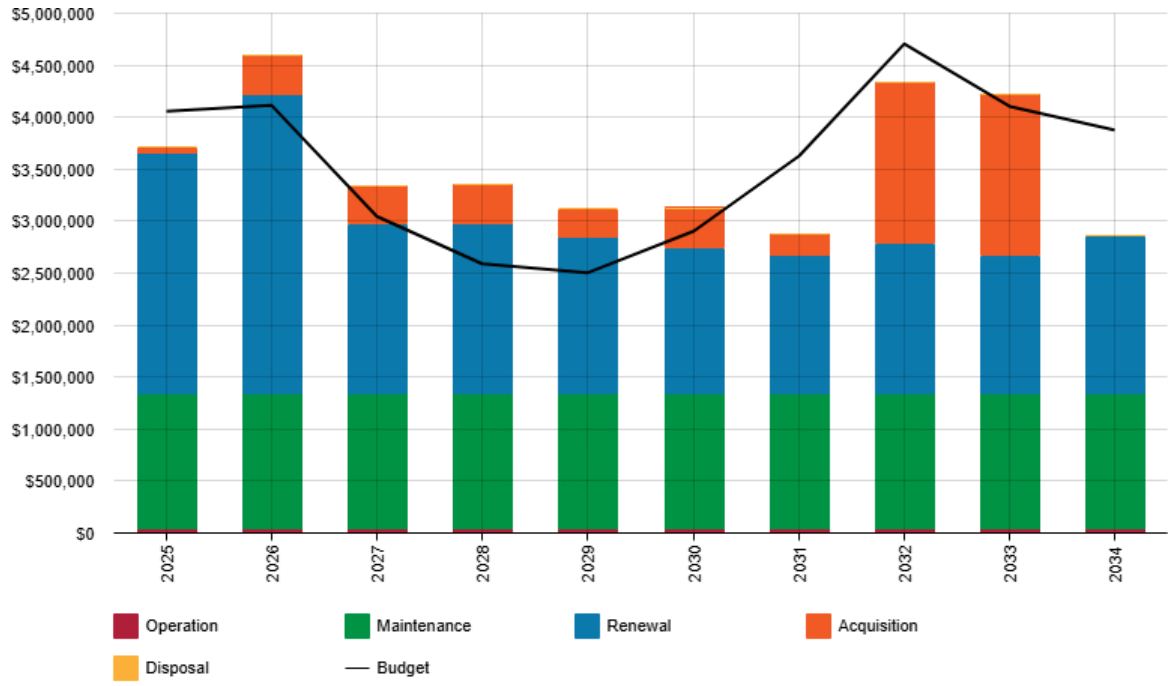
1.6.1 What we will do

Estimated available funding for the 10 year period is $35,527,946 or $3,552,795 on average per year, as per the Long-Term Financial Planned Budget provided for the AM Plan development. This is 100% of the cost to sustain the current level of service at the lowest lifecycle cost, based on demand Renewals, which has been used to develop this plan.

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 Long Term Financial Plan (LTFP), on average, for the first 10-years is sufficient to provide existing services, however will need review in the future to manage growing expectations on upgrades of certain asset classes. The Renewal Demand forecast, forecast Upgrade projects and the Operations and Maintenance expenses versus the LTFP Budget, is shown in Figure 1.1 below.

Figure 1.1: Forecast Demand Lifecycle Costs versus LTFP Planned Budget



Present values (2024 costs) – no indexation applied.

We plan to provide Transport Network services for the following:

- Operation, maintenance, renewal and acquisition of sealed roads, unsealed roads, bridges, footpaths, kerbing, airport assets, transport lighting and local area traffic management assets, to meet current service levels. The retaining of the service levels will depend on decisions made by Council in consideration and setting of the annual budgets.

1.6.2 What we cannot do

We currently do **not** allocate enough budget to provide these services at any improved standard levels or to provide new services that may be sought by the Community in the annual business planning process. Works and services that cannot be provided under present funding levels are:

- All of the identified Footpath Upgrade program
- New footpaths will not be constructed until later in the AMP planning period

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:

- Road pavement failures where appropriate resealing treatments have not been conducted at an optimal time
- Complete asset failure requiring full construction

We will endeavour to manage these risks within available funding by undertaking proactive field inspections conducted yearly to confirm the ongoing resealing program.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Continue 4 yearly condition assessments
- Road Surface Manager will continue to be implemented to manage surface and pavement assets
- Footpath Operational Management Pilot will continue to be implemented.

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 a highly reliable level of confidence on the information available at the time.

1.8 Monitoring and Improvement Program

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

- Review and update LTFP for footpath and kerb allocation of budget
- Continue to resource the asset management system improvement plan through Council's Managed Customer Agreement (MCA) with Tonkin and Conquest
- Continue to support and develop the asset team at Council
- Engaged experts when required on specific improvement initiatives
- Adequately plan, budget and resource the asset improvement plan in this AM Plan

2 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 the Council planning documents. This should include the Asset Management Policy and Asset Management Strategy, where developed, along with other key planning documents:

- 2034-2034 Community Plan
- Long Term Financial Plan
- Infrastructure and Asset Management Plan
- Disability Access and Inclusion Plan
- Asset Recognition and Accounting Policy
- Heavy Vehicle Access Policy
- Risk Management Framework Policy
- Renmark Aerodrome Masterplan
- Renmark Urban Design Framework
- Community Survey Summary
- Risk Management Framework
- Infrastructure and Asset Management Policy
- Land Division Guidelines

These documents can be found on Council's website.

Council's journey to implement structured asset management processes and plans began in 2008. At that time, we commenced the collection of condition data for our road and transport network and established a comprehensive road register. This marked the beginning of a successful and ongoing partnership with Tonkin, who have provided invaluable support in managing our asset management systems ever since.

All asset data is maintained within Conquest; a specialised software platform, managed on our behalf by Tonkin. In 2010, we expanded our asset registers to include the Community Wastewater Management Systems (CWMS) and Stormwater infrastructure, both of which were integrated into Conquest.

A strategic review of the footpath network has also been completed, providing critical insights to support the development of levels of service for maintenance, renewal, and upgrades. This work has informed this Transport AM Plan. This framework will be extended to other asset classes as part of our ongoing commitment to asset management maturity.

Over the past decade, we have completed:

- Three condition audits of our transport assets.
- Five revaluations of Transport assets for accounting purposes.
- Two revaluations of CWMS and Stormwater assets.

Additionally, condition audits have been completed or commenced on CWMS, Category 1 and 2 Building assets and the Stormwater network. Council is committed to undertaking revaluations for accounting purposes on a four-year cycle, and future iterations of this plan will detail that revaluation schedule.

The infrastructure assets covered by this AM Plan include Council's Road Network, which includes townships sealed surfaces and rural sealed roads, unsealed (sheeted) roads, formed graded roads, carparks as well as related Transport infrastructure including kerbs, footpaths and shared paths. In addition Council's airport infrastructure is included in this AM Plan. For a detailed summary of the assets covered in this AM Plan refer to Table 5.1 in Section 5.

The infrastructure assets included in this plan have a total replacement value of $128,425,089 as at 1 July 2024 valuation.

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 Members	Represent needs of the community Allocate resources to meet planning objectives in providing services while managing risks Ensure Council is financially sustainable
Chief Executive Officer and Director Infrastructure and Environmental Services	Endorse the development of asset management plans and provide the resources required to complete this task Set high level priorities for asset management development and raise the awareness of this function among staff and contractors Support the implementation of actions resulting from this plan and lead improvements to asset management strategies and service delivery Support for an asset management driven budget and LTFP
Manager Infrastructure Services	Prepare and deliver the annual Capital program through the development of asset management plans Coordination of external contractors Manage Technical Levels of Service Lead the Strategic Asset Management System Review Lead the development of Asset Management Plans Consolidating the asset register and ensuring the asset valuations are accurate
Manager Operations and Operations Team Leaders	Deliver the annual operational and Maintenance works plans Coordination of works team and external contractors Collaborate with the Infrastructure Services team providing information on asset operations to inform asset renewal and upgrades

Key Stakeholder	Role in Asset Management Plan
Manager Finance Services	Development of supporting financial policies Preparation of asset sustainability and financial reports incorporating asset depreciation in compliance with current accounting standards
Asset Officer	Support the delivery of the annual Capital program Support the implementation of Technical Levels of Service Support the delivery of the Strategic Asset Management System Review Assist in the development of Asset Management Plans Consolidating the asset register and ensuring the asset valuations are accurate.
Community (residents, businesses, property owners) and Visitors	End users of the Assets Provide feedback on Levels of Service Reporting defects and deficiencies through Councils service request system
Asset Management and Engineering Consultants	Provide support for the development of asset management plans and the implementation of effective asset management principles within Council Provide asset revaluation support. Provide Engineering and design advice and support

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

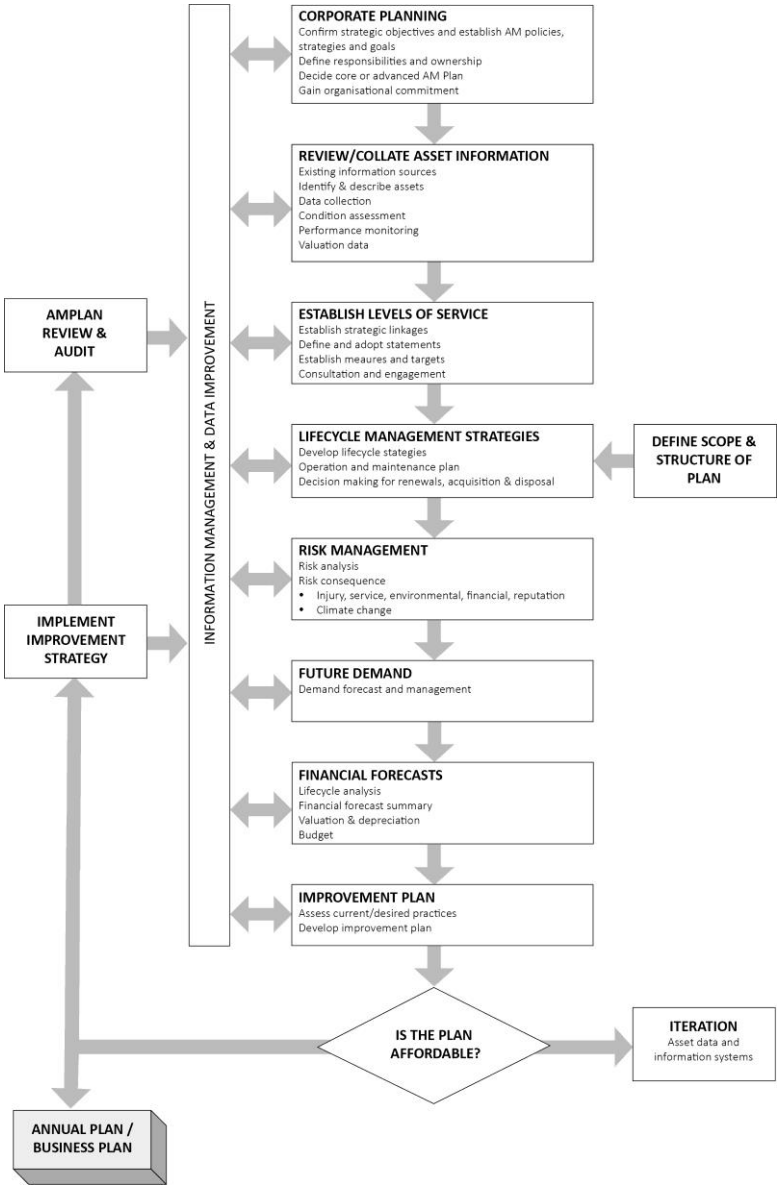
- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- 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 [2]
- ISO 55000[3]

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

Figure 2.1: Road Map for preparing an Asset Management Plan



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

[2] *Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13*

[3] *ISO 55000 Overview, principles and terminology*

3 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.

Table 3.1 summarises the results from our 2023 Customer Satisfaction Survey Report that are relevant to Transport Assets.

Table 3.1: Customer Satisfaction Survey Levels

Performance Measure	Satisfaction Level					
	Outstanding	Good	Average	Poor	Very Poor	N/A
Providing and maintaining roads and footpaths	10%	34%	34%	13%	9%	-
Providing and maintaining tracks and trails for walking, riding and running	12%	39%	30%	8%	3%	8%
Engagement & Communications QB3 (overall)	15%	43%	24%	11%	7%	-

3.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Strategic Framework as set out in Council's 2024-2034 Community Plan.

Our Shared Vision for Renmark Paringa is:

We strive to protect and enhance our region as it is a unique place, underpinned by a rich heritage and enviable river lifestyle. We are proud to share and nurture this natural beauty, welcome visitors and drive growth and investment to sustain our vibrant community long into the future. We lead healthy, active and fulfilling lives, with a commitment to support and respect each other and our environment. Together, we're building a brighter future.

To achieve our strategic outcomes and vision, our Four Aspirations are:

LIVEABLE PROSPEROUS ENVIRONMENT LEADERSHIP

The Community Plan sets out a series of strategic goals and areas of focus for each of the Aspirations. The goals and objectives relevant to Transport Assets and how these are addressed in this AM Plan are summarised in Table 3.2.

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

Goal	Area of Focus Objective	How the Goal and Objectives are addressed in the AM Plan
LIVEABLE Our goal is to support a community that is: * Resilient and enjoys positive health outcomes * Active and participates in sport and recreational activities * Connected, inclusive and supports lifelong learning	L3.1 Deliver improved pedestrian and disability accessibility through contemporary maintenance and renewal practices.	Implement the Disability Access and Inclusion Plan and ensure that infrastructure and assets meet the needs of most members of the community.
	L4.2 Deliver a review of open spaces to create a long-term plan for redevelopment to provide recreation opportunities for all ages.	Provide good access and connectivity to and from public spaces through the footpath upgrade program
	L5.1 Deliver the next phases of Council's public lighting audit and energy efficient lighting upgrades.	Continue to develop the Councils public lighting audit and recommendations
PROSPEROUS Our goal is to create a community that is and has: * Resilient, diverse and sustainable industries * Access to technology, housing and a lively town centre * A vibrant tourism experience and offering	P5.1 Ensure key transport routes enable movement between new growth areas and the township.	Advocate for improved and safer transport routes to Adelaide and eastern state markets.
	P5.2 Advocate for enhanced transport connections between the Riverland and other areas (incl freight)	Develop a masterplan for future infrastructure needs at Renmark Airport.
ENVIRONMENT Our goal is to create a community that has: * Community assets and industries resilient to the effects of extreme weather and threats to biosecurity * Sustainable management of natural resources (including water, waste and energy) * A green, healthy and thriving natural environment	E1.1 Deliver maintenance and renewal of assets with consideration of changing weather patterns and the impacts of heat and flooding.	Investigate, report and trial on the feasibility and appropriateness of using surface treatments that radiate less heat than traditional treatments
	E1.2 Apply quality asset management principles to ensure optimal whole of life costs for Council assets. E.1.3 Prioritise the renewal of Council assets over the development of new assets, where appropriate.	Continue to implement the outcomes and initiatives in the Asset Management Improvement Plan.
	E3.3 Partner to deliver riverbank stabilisation and flood mitigation	Continue to work with State Government departments in developing a levee bank network database
	E4.2 Explore opportunities to deliver more efficient use of energy in Council operations	Embed climate adaptation policy principles through for new capital works and asset management.
	E6.1 Deliver the Greening Renmark Paringa Plan, which includes tree planting schedules and priorities	Through the delivery of the Greening Renmark Paringa Plan, ensure varieties selected and planted minimise impact on roadside infrastructure

Goal	Area of Focus Objective	How the Goal and Objectives are addressed in the AM Plan
LEADERSHIP Our goal is to ensure Renmark Paringa Council: * Is accountable, reliable and transparent * Effectively communicates and engages its community to inform decision-making * Delivers efficient, effective and sustainable operations	LE1.2 Proactively seek external funding to extend, accelerate and complement Council's investment in projects and services	Identify and plan for Transport renewal or upgrades that will meet potential grant funding rounds

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

Legislation	Requirement
Australian Accounting Standards AASB 13	Sets out the financial reporting standards for the Fair Value Measurement of Assets
Disability Discrimination Act 1992 and other relevant disability legislation	Sets the standards for accessibility to eliminate as far as possible, discrimination against persons on the grounds of disability
Environment Protection Act 1993 & Environment Protection Regulations 2023	The Environment Protection Act 1993 provides the regulatory framework to protect South Australia's environment, including land, air and water.
Landscape South Australia Act 2019	An Act to promote sustainable and integrated management of the State's landscapes, to make provision for the protection of the State's natural resources, and for other purposes (previously NRM Act 2004 now ceased)
Local Government Act 1999	Sets out role, purpose, responsibilities, and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Native Vegetation Act 1991 to be superseded by the Biodiversity Act 2025 once in effect.	An Act to provide incentives and assistance to landowners in relation to the preservation and enhancement of native vegetation; to control the clearance of native vegetation; and for other purposes. The Act and Regulations apply to the management of native vegetation on Council land, roadsides and road reserves.
Work Health & Safety Act 2012	An Act to provide for the health, safety and welfare of persons at work; and for other purposes

Legislation	Requirement
Australian Road Rules	The Australian Road Rules are model laws that have no legal effect. They form the basis of road rules of each Australian state and territory. For the most part, each state and territory has copied the Rules into their own laws, however, not every provision of the Rules has been copied exactly in each state and territory. Also, there are a number of provisions in the Rules that specifically leave certain matters to state and territory governments to determine.
Dangerous Substances (Dangerous Goods Transport) Regulations 2023	Provides the regulatory framework for the packaging and transportation of dangerous goods by road and rail.
Heavy Vehicle National Law and Regulations (HVNL)	The National Heavy Vehicle Regulator (NHVR) administers one set of laws for heavy vehicles over 4.5 tonnes gross vehicle mass. This set of laws consists of the Heavy Vehicle National Law (HVNL)* and five sets of regulations.
Highways Act 1926	Set out the Legislative framework for drainage of roads and road authorities in SA
National Road Safety Strategy 2021-30	Australia has a 10-year strategy to improve safety on our roads
Roads (Opening & Closing) Act 1991	An Act to provide for the formal processes around the opening and closing of gazetted roads
Road Traffic Act 1961	An Act to prescribe the duties of road users; to provide for nationally consistent road rules; to provide for vehicle standards, mass and loading requirements and other safety measures in relation to light vehicles; to regulate the identification of vehicles; to provide for the installation, use and maintenance of traffic control devices; to provide for the closing of roads for traffic management and other purposes

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,
- 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
Sealed Roads are well maintained with a good rideability standard	Customer Action Requests Incident records	Meeting community expectations	Continuing to meet community expectations
Unsealed roads are maintained to a good rideability standard	Customer Action Requests Incident records	Localised areas receive repeated service requests	Trend to continue and fit for purpose rideability standard
Laneways provide good accessible to rear of properties	Customer Action Requests Incident records	Localised areas receive repeated service requests	There will be an uplift in proactive maintenance
Footpaths are safe for all users and are readily accessible across all townships	Customer Action Requests Incident records	Currently not meeting community expectations	There will be an uplift in proactive maintenance and consideration of a long-term footpath upgrade program
Kerbs effectively drains surface water with limited ponding	Customer Action Requests Incident records	Currently not meeting community expectations	There will be an uplift in proactive maintenance

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				
Sealed Roads	Sealed roads provide all users a good level of rideability and safety	Customer Action Requests	20 requests in last 12 months	Target no of 15 for Customer complaints/requests
Unsealed Roads	Unsealed roads provide most users a reasonable level of rideability and a good level of safety	Customer Action Requests	10 requests in last 12 months	Target no of 7 for Customer complaints/requests
Laneways	Laneways provide accessibility to rear of properties	Customer Action Requests	7 requests in last 12 months	Target no of 7 for Customer complaints/requests
Footpaths	Footpaths are safe and readily accessible for most users across all townships	Customer Action Requests	The extent of the footpath network does not provide the desired level of accessibility across the townships. The defects across the network require an ongoing proactive approach to maintenance	Defects to be reduced with ongoing proactive maintenance and undertaking of an upgrade plan for the Footpath Network is being considered by Council
Kerb & Gutters	Kerbs effectively drain surface water during normal weather activity, with limited ponding affecting accessibility or safety	Customer Action Requests	12 requests in the last 12 months	Consideration of a targeted proactive maintenance plan for known problem areas. Target no of 9 for Customer complaints/requests

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
FUNCTION				
Road Network	Generally, the sealed and unsealed road networks including laneways, suit current levels of vehicle demand during normal operating conditions	Customer Action Requests	Council have received very limited complaints on road functions	keep status quo
Footpath Network	Constructed Footpaths are available to access all major services in townships – Schools, Medical, Library, Recreational Facilities and all residential areas	Asset register	Demand for footpath network generally meets with the communities' expectations	Footpath Network upgrades are subject to LTFP and budget availability
Kerb Network	Every sealed road in a township should have kerb and watertable on both sides, where concentration of residential or commercial frontages exists	Asset register	Council are proactively planning for upgrades to township kerbing.	Council current commitment is that only township roads identified in the 2017 kerb and water table audit will have construction works undertaken
CAPACITY				
Road Network	Regional Road network meets demands	Traffic counts and NHVR permits	Meets demand	Meets demand
Footpath Network	Footpaths and shared paths are constructed to suit expected usage. E.g. higher capacity within commercial zones and adjoining major services and facilities	Asset register	The demand is for better quality footpaths not necessarily more	Footpath Network upgrades are subject to LTFP and budget availability

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.[4]

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 **
Acquisition	Land divisions are approved in accordance with the Land Division guidelines to ensure all infrastructure is approved by Council, prior to handover and that measures are in place to incorporate the Assets into Council's asset management system	Land Use	On Track	Review the internal process for bringing Land Division assets into the Asset management system. There are no land division / donated assets included in the planning period of this AM Plan.
	Complete the construction of kerbs and gutters to Sealed Roads as identified in the 2017 kerb audit	Community Requests	Below Community expectation	Best estimate budget allocations have been included in this AM Plan for upgrade works, based on current known construction costs.
	Footpath upgrade plan to be developed	Social	On Track	A Footpath upgrade plan has not be included in this AM Plan forecasts, however the Plan has been included in the Improvement Plan

[4] *IPWEA, 2015, IIMM, p 2|28.*

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
	Intersection upgrades for heavy vehicle access	Economic	Below Community expectation	Funding forecasts have been included in this AM Plan budget, subject to DIT consultation and availability of external grant funding.
		Budget	$511,756 pa Average for the Planning Period of the Planned Budget for Acquisition	Average for the Planning Period of the Forecast Cost for Acquisition
Operation	Undertake road condition and safety inspections; reactive inspections; public lighting audit; traffic counts to facilitate works planning and programming	Budget Allocations	On Track	Council to continue to provide resources for ongoing surveillance and to transition from reactive to proactive inspections to better define budget allocation and outcomes
		Budget	$45,229 pa Average for the Planning Period of the Planned Budget for Operation	Average for the Planning Period of the Forecast Cost for Operation
Maintenance	Maintain assets in a suitable condition to meet original service potential in line with expected useful life and in line and good practices. Examples: ■ Crack Sealing ■ Line marking ■ Pothole repair ■ Edge break repair ■ Patrol Grading ■ Shoulder Maintenance ■ Patching ■ Cross drain clearing, ■ Street sweeping ■ Signage ■ Vegetation envelope clearing ■ Verge mowing.	Budget Allocations	Meeting internal schedules. Receive some customer feedback seeking additional patrol grading. Grading occurs when moisture conditions allow. Formalised maintenance schedule and management. Patrol grading management tool	Continue to implement the development of operational procedures, process and system to capture works required and improve budgeting and allocation of resources - included in the Improvement Plan
		Budget	$1,303,595 pa Average for the Planning Period of the Planned Budget for Maintenance	Average for the Planning Period of the Forecast Cost for Maintenance

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
Renewal	Renew assets when they approach or meet end of service life in a planned and cost-effective manner Programs are in place for: ▪ Reseals ▪ Resheeting ▪ Pavement Rehabilitation ▪ Footpath Renewal Program ▪ Cycleways Renewal ▪ Kerbing Renewal .	Budget Allocations	Below Community expectation. Determine demand and fund it	Opportunities exist to improve scheduled renewal. Renewal Plan is developed every 4 years through the AM Plan on a 10-year program. Included in improvement plan to develop a clearly defined multi year renewal program in line with lifecycle analysis of Transport assets (suggest a rolling 3-year renewal plan of works)
		Budget	$1,692,214 pa Average for the Planning Period of the Planned Budget for Renewal	Average for the Planning Period of the Forecast Cost for Renewal
Disposal		**Budget**	Nil	No decommissioning has been identified for the Planning Period of the Forecast Cost for Disposal

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 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 4.1.

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 4.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 4.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	2021 Census[5] Approx. 9,783 residents in the Council Area (2023 increased to 10,107 ABS stats)	Regional migration and potential for major development may lead to an increase in the district population. Slow increase in population from 2016 9,475	Minimal currently	Monitor population growth for trends and future subdivision expansions. Monitor growth in customer requests. Align upgrade plans in line with future planned development.
Demographics	Median age 44 4,241 (approx. 35%) over 50, and similar 36% not in workforce	Ageing population	Increase in footpath utilisation by aging portion of population	Implementing proactive footpath maintenance program and consider funding and developing a footpath upgrade plan in future asset plans. Included in the Improvement Plan
Demographics	2,674 families in 2021 Census	2,504 families in 2016, so slowly increased	need for bike paths and footpaths between schools, parks etc	Consider when setting footpath and walkway renewals and maintenance programs

[5] *2021 Renmark, Census All persons QuickStats | Australian Bureau of Statistics*

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Environmental	Increasing rainfall events and intensity	Expected to continue	Increased demand on unsealed road maintenance and grading services	Continue to implement the storm response procedure A plan to undertake research into environmental impacts to infrastructure is included in the Improvement Plan
Land Use	Transport Business operations have increased from 45 (2019) to 54 (2023) truck sizes and volumes ABS stats show that Agriculture has decreased form 388 (2019) to 362 (2023)	Bigger and heavier trucks using the road network Trend of corporate consolidation of smaller business	Pressure to increase turning paths on certain intersections Increase size of vehicle	Monitor NHVR. Engage with the businesses and farming community. Customer requests and consider heavy vehicle intersection upgrades Included in the Improvement Plan
Social	Footpaths not complying with DDA current standards	Community and regulatory drivers to increase compliance	Increasing requirement for footpath renewal and upgrade. Increased unit price for replacement	Compliance requirements will be dealt with over the long term during any planned renewal works and for any new footpath construction. Included in the Improvement Plan
Tourism	Slight increase in Accommodation businesses 38 (2019 to 44 (2023) Increasing tourist numbers including larger towing vehicles and caravans	Little impact Will continue	no impact Requests for longer vehicle parking and footpath connectivity access points for tourist centres	monitor Include tourism consideration in footpath upgrade plan and monitor on road long vehicle parking provision for suitability Undertaken an Audit of longer Vehicles Included in the Improvement Plan

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 Council 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. The Improvement Plan includes a recommendation for Council to develop Climate Change resilience strategies for infrastructure assets in future revisions of the Transport AM Plan.

Risk and opportunities identified to date are shown in Table 4.2.

Table 4.2: Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Rainfall and flooding	More frequent heavy rain events	Potential for road washouts and increased damage including potholes, edges, shoulders.	Increased renewal where required, evaluate flooded areas to determine if stormwater management solutions can be implemented to mitigate future issues.
Warmer climate	Increasing peak temperatures and longer heatwaves and fire danger periods	Reduced capacity for patrol grading. Higher wear rates on unsealed roads in long dry periods Increased bleeding of bitumen on sealed roads. Expansion impact to footpath joints, wear on turning intersections	Optimise work schedules for patrol grading. Work with bitumen contractors on suitable binders. Increased footpath maintenance. Review standard design for footpath renewals and new construction

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

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 4.3 summarises some asset climate change resilience opportunities.

Table 4.3: Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
Sealed surfaces	Extended heatwaves and warmer summers leading to bitumen bleeding	Sealed road binder selection to be optimised to suit expected peak temperatures
Road and footpath surfaces	Increased rainfall intensities and frequency leading to washouts, potholes	Refer to future stormwater management plans and integrate findings in SW AM Plan

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.

5 Lifecycle Management Plan

The lifecycle management plan details how Council 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.

Table 5.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Sealed Roads	315.2 km	$88,340,851
Sealed Carparks (on/off road)	25 (count)	
Unsealed Sheeted Roads	92.1 km	$7,591,458
Unsealed Sheeted Carparks (on/off road)	1 (count)	
Footpath & Shared Paths	39.5 km	$9,332,938
Sealed Footpaths		
Sealed Shared Paths	5.7 km	
Unsealed Footpaths	43.1 km	
Kerb and Watertable	98.8 km	$18,997,387
Airport Assets	6 (count)	$3,995,322
Sealed Airport Runway, Taxiway & Apron		
Sheeted Airport Runway	1 (count)	
Airport Fence & Monitoring Station	2 (count)	
Transport Lighting	3 (count)	$70,726
Local Area Traffic Management Asset Types	1 (count)	$96,408
Total		**$128,425,089**

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 5.2.

Table 5.2: Known Service Performance Deficiencies

Location	Service Deficiency
Rural sealed road shoulders	Edge damage resulting in the road edge developing a drop off and impacting road safety
Laneways as secondary access point to properties within some townships	These secondary access laneways to private properties have minimal maintenance (nominal budget only) and often provide inadequate drainage during and after rain events
Heavy vehicle accessibility to all roads	Only certain roads have adequate access for heavy or over dimension vehicles
Kerb and Watertable	Township properties that don't have kerbed frontages
Footpath Maintenance	Lack of funding and resourcing to support proactive maintenance of footpath network
Footpath extent	The footpath network does not provide constructed footpaths to all residences and does not meet requirements for connecting activity nodes attracting higher pedestrian demand

The above service deficiencies were identified from staff knowledge and through recent condition assessments.

5.1.3 Asset condition

Condition is measured using a 1 – 5 grading system[7] as detailed in Table 5.3. 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.

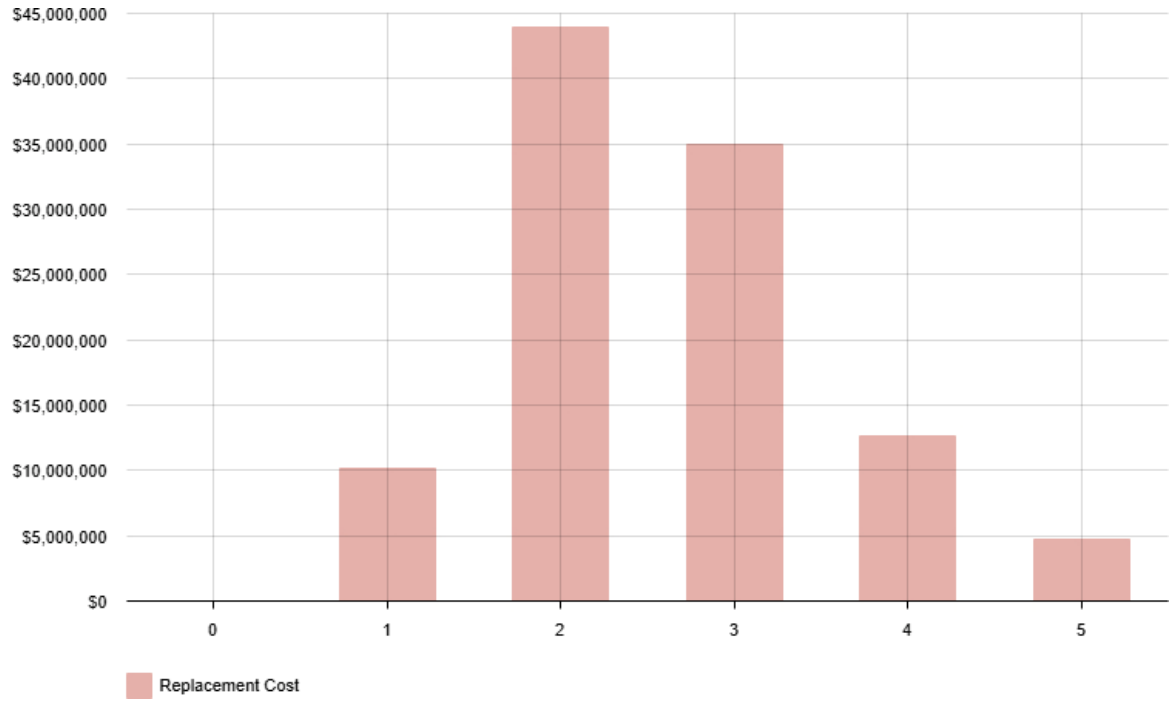
Table 5.3: Condition Grading System

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.

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

Figure 5.1: Asset Condition Profile



Present values (2024 costs) – no indexation applied.

The condition profile demonstrates that there is less than $5m of poor quality assets (Condition 5) that can be managed through appropriate renewal spending with a small backlog potentially being carried forward.

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 historical trend in operations and maintenance budgets are shown in Table 5.4.

Table 5.4: Operations and Maintenance Budget Trends

Function	21-22	22-23	23-24	24-25 (budget)	Average
Maintenance					
Aerodrome	$45,606	$59,912	$47,983	$55,190	$52,173
Bridges	$4,045	$0	$5,658	$10,074	$4,944
Footpath & Kerbing	$166,177	$125,641	$210,996	$358,540	$215,339
Roads- sealed	$458,286	$482,836	$556,581	$1,170,474	$667,044
Roads- formed	$186,674	$229,731	$156,207	$573,128	$286,435
Roads- natural formed	$9,823	$1,698	$3,014	$9,461	$5,999
Roads - unformed	$667	$1,671	$1,759	$13,427	$4,381
Traffic Management	$55,330	$46,890	$76,366	$166,384	$86,243
Medians	$103,891	$104,397	$129,434	$199,640	$134,341
Subtotal Maintenance	**$1,030,499**	**$1,052,776**	**$1,187,998**	**$2,556,318**	**$1,456,898**
Operations					
Aerodrome	$14,435	$18,025	$23,060	$26,542	$20,516
Bridges	$2,237	$5,122	$3,468	$3,617	$3,611
Traffic Management	$18,770	$12,555	$14,690	$15,019	$15,259
Subtotal Operations	**$35,442**	**$35,702**	**$41,218**	**$45,178**	**$39,385**
Total Operating Expenditure	**$1,065,941**	**$1,088,478**	**$1,229,216**	**$2,601,496**	**$1,496,283**

A maintenance budget of $1,348,824 has been adopted for this plan and is split between operations and maintenance activities. This funding level is considered to be adequate to meet 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, where defined, is shown is Table 5.5.

Table 5.5: Asset Service Hierarchy

Asset Class	Service Hierarchy	Service Level Objective
Sealed Roads	Rural Sealed Roads	Sealed roads outside of the 50km/h zones providing primary connectivity throughout the district
	Township Sealed Roads	Sealed roads within the 50km/h built up zones providing links within townships
Unsealed Roads	Township Laneways	Low Use traffic roads within townships
	Rural Category 1 Sheeted Roads	High Use traffic roads providing all weather district connectivity
	Rural Category 2 Sheeted Roads	Medium Use traffic roads providing all weather district connectivity
	Rural Category 3 Sheeted Roads	Low Use traffic roads providing all weather local connectivity
	Rural Category 4 Sheeted Roads	Low Use traffic roads providing all weather local access
	Rural Natural Formed Graded Road	Dry weather only local access (non-valued assets)
Kerb and Watertable	Concrete Kerb and Gutter	Transfer stormwater from source to outlet
	Concrete Upright Kerb (no gutter)	
	Concrete Rollover	
	Concrete Median Kerb	
	Spoon Drain	
Footpaths	Cat 1A – Concentration retail/entertainment, health services fronting both sides of road	High. Full width brick paved both sides
	Cat 1B - Concentration retail/entertainment, health services fronting one side of road	High. Full width brick paved one side
	Cat 2 – Connecting people with facilities defied as nodes	Medium. Constructed path both sides with minimum width of 1.2m
	Cat 3A – Linking local precincts to category 2 footpath	Medium. Constructed path one side with min width of 1.5m and crusher dust or rubble
	Cat 3B – Legacy road with footpath constructed on one side and natural on the other	Medium. Constructed path one side with min width of 1.5m and natural on other side

Asset Class	Service Hierarchy	Service Level Objective
	Cat 4A – Residential Precinct frontage both sides	Low. Crusher dust or rubble on both sides with future unfunded aspirations to construct a 1.5m wide footpath on one side only and crusher dust on the other side
	Cat 4B – Residential Precinct frontage on one side	Low. Crusher dust or rubble on one side and natural on the other side with unfunded aspiration to construct 1.5m wide footpath on one side only.
	Cat 5 – No house frontage or pedestrian demand	Natural surface
	Shared Path	Link centres off road -hotmix with 150mm base

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.

The forecast budget for Operations and Maintenance for this AM Plan has been based on the historical data and trends with an indexation applied. The forecast is as is shown in the table below by function, distinguishing between what Council considers operational costs versus maintenance costs.

Table 5.6: Operations and Maintenance by Function Year 1

Function	Year 1 Forecast
Maintenance	
Aerodrome	$52,652
Bridges	$6,209
Footpath & Kerbing	$231,527
Roads- sealed	$610,739
Roads- formed	$171,407
Roads- natural formed	$3,307
Roads - unformed	$1,930
Traffic Management	$83,797
Medians	$142,028
Subtotal Maintenance	**$1,303,595**

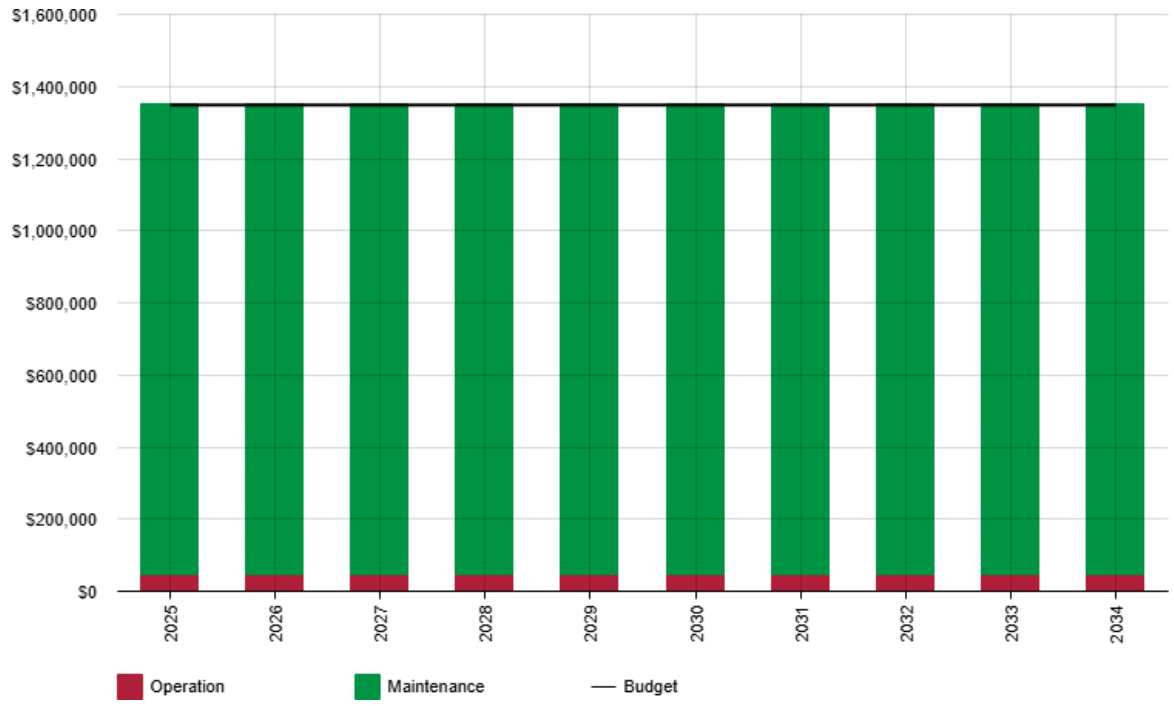
Function	Year 1 Forecast
Operations	
Aerodrome	$25,304
Bridges	$3,805
Traffic Management	$16,119
Subtotal Operations	**$45,229**
Total	**$1,348,824**

The amount of $1,348,824, being $45,229 for Operations and $1,303,595 for maintenance related expenses, has been included in the AM Plan forecasts for each year of the planning period, no annual indexation applied.

Council should consider this as a minimum starting point for Annual Budgeting to maintain the current service levels of this AM Plan. Staff knowledge of needs for reactive and planned maintenance have been used to develop these forecasts.

The summarised forecast operations and maintenance costs for Year 1 (and annually) for the AM Plan are shown in the Figure below.

Figure 5.2: Operations and Maintenance Summary



Present values (2024 costs) – no indexation applied.

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 estimates for demand renewals in this AM Plan were based on the asset register method as above.

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.5. Asset useful lives were last reviewed on 1 July 2024[8].

Table 5.7: Useful Lives of Assets

Asset (Sub)Category	Useful Life (years)	
	From	To
Township Sealed Surface Types - Upper Seal/Short Life Layer	20	30
Township Sealed Surface Types - Lower Seal/Long Life Layer	60	90
Rural Sealed Surface Types - Upper Seal/Short Life Layer	17	28
Rural Sealed Surface Types - Lower Seal/Long Life Layer	51	84
Carpark Surface Types	28	-
Township Unsealed Surface Types	20	80
Rural Local Unsealed Surface Types	20	100
Pavement (Township & Rural)	80	270
Footpath & Shared Path Types (Clay, Concrete, Hotmix, Spray Seal)	20	50
Kerb and Watertable Types	70	70
Airport Runway (Spray Seal, Pavement, Sheeted)	20	150
Airport – other assets	20	50

[8] 241014.01L007RA_Transport Asset 1 July 2024

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
- 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 5.8.

Table 5.8: Renewal Priority Ranking Criteria

Criteria	Weighting
Safety	50%
Capacity	25%
Strategic Alignment to Community Plan	15%
Connectivity to network	10%
Total	**100%**

5.3.2 Summary of future renewal costs

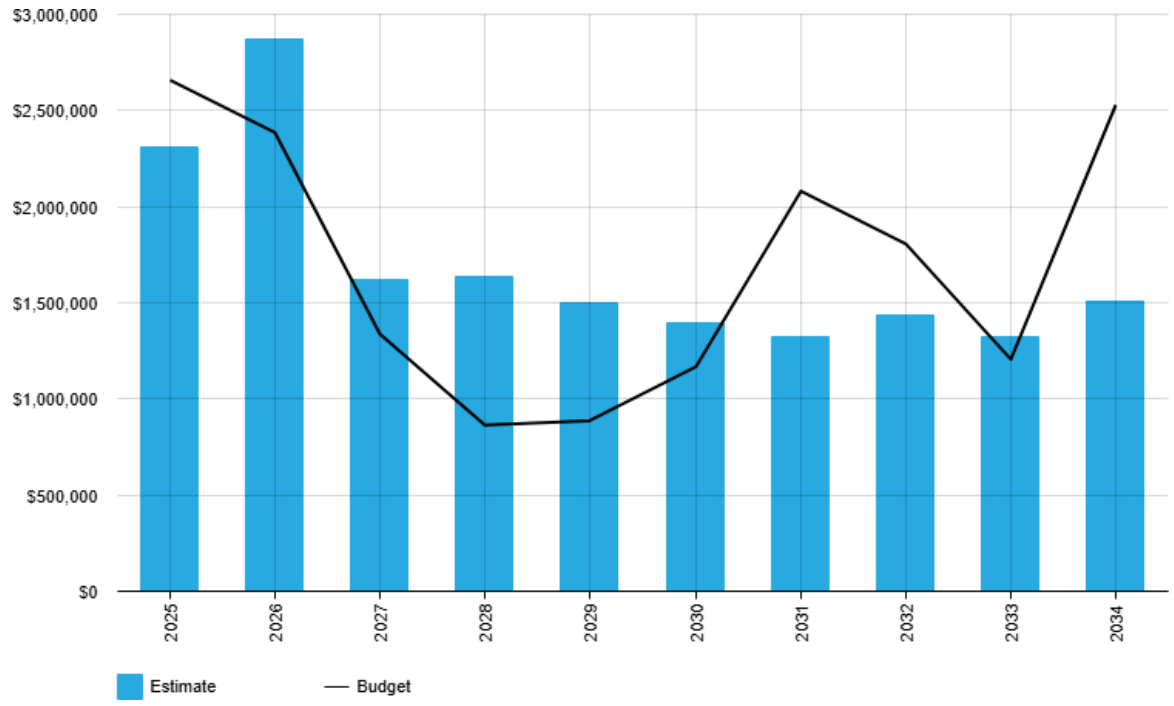
Forecast renewal costs are projected to increase over time if the asset stock increases. The demand forecast costs associated with renewals are shown relative to the proposed LTFP renewal budget in Figure 5.3.

A summary of the forecast renewal costs for demand and the LTFP budget is shown in Appendix D.

[9] *IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.*

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

Figure 5.3: Forecast Renewal Costs



Present values (2024 costs) – no indexation applied.

The Renewal Demand forecasts included in this AM Plan have been developed from extensive modelling by Council and Tonkin to achieve an optimal output for inclusion for roads, footpath and kerbing renewal.

Road Surface Manager (RSM) was used to develop limited and unlimited modelling for road assets. The total capital allocated in the LTFP over 10 year period is sufficient for both sealed and unsealed optimal models. The modelling options are explained in Appendix G.

For Footpath Renewal, the forecast demand is approximately $1.5m for footpath/cycleway and the budget in the LTFP in just over $1m, and indicates that Council needs to consider this when setting annual budgets, or footpath service levels provided by existing assets will fall below acceptable levels.

Kerbing renewal demand indicates approximately $370k of demand over the 10-year period for kerbs requiring full length replacement. There is also a kerb patching demand requirement of $1m for the planning period ($100k per annum) providing a total forecast demand of $1.27m. The LTFP indicates renewal for the planning period of $73,440, a significant shortfall. Council will need to give this further consideration to ensure that kerbing asset services levels don't fall too far below acceptable levels. This has been included in the Improvement Plan Table 8.1.

Pavement renewal demand of $2.3m matches the LTFP budget.

There is no allocation for Airport renewal in this plan.

The LTFP also includes a 15% contingency in 25/26 and a general transport provision unallocated to an asset class in 34/35 of $1.075m. This totals $1.42M.

Over the 10 years the forecast total matches the LTFP budget. It is recommended that a closer review be undertaken in the LTFP to increase renewal allocation to footpath and kerb and maintain budget on other classes. This would need a review of the LTFP. In addition given the network will be reassessed for condition in the coming year there is also opportunity to review the forecast as part of the improvement plan.

5.4 Upgrade & Acquisition Plan

Upgrades and Acquisition reflects 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 Council through land divisions.

This AM Plan does not reflect any donated assets.

5.4.1 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 5.9.

Table 5.9: Upgrade & Acquired Assets Priority Ranking Criteria

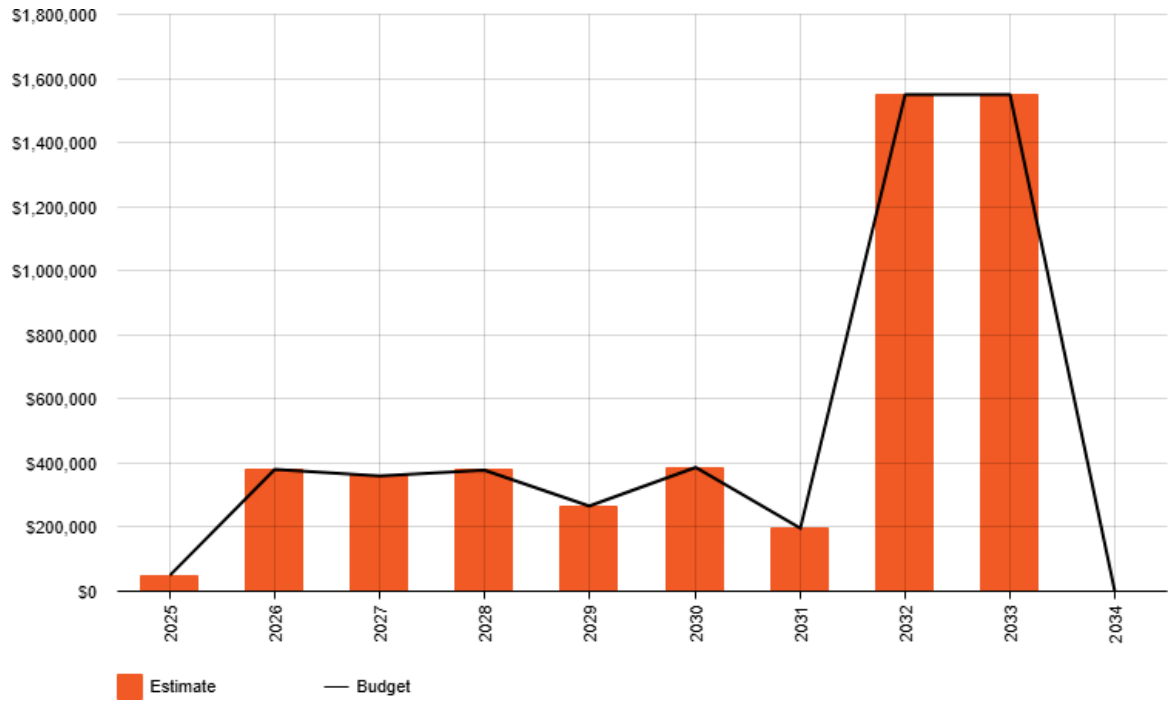
Criteria	Weighting
Safety	50%
Capacity	25%
Strategic Alignment to Community Plan	15%
Connectivity to network	10%
Total	**100%**

5.4.2 Summary of future asset upgrade & acquisition costs

Forecast upgrade asset costs are summarised in Figure 5.4 and shown relative to the proposed LTFP upgrade/acquisition budget.

The forecast Upgrade capital works program is shown in Appendix A.

Figure 5.4: Upgrade & Acquisition (Constructed) Summary



Present values (2024 costs) – no indexation applied.

When Council 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[11] assets being taken on by Council. For this AM Plan there are no known 'gifted' assets to be considered.

The planned upgrades include James Ave/Ninth Street footpath, kerb upgrades on a range of streets and heavy Vehicle intersection upgrades.

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.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. There are no Transport Assets identified for possible decommissioning and disposal in the 10-year planning period of this AM Plan.

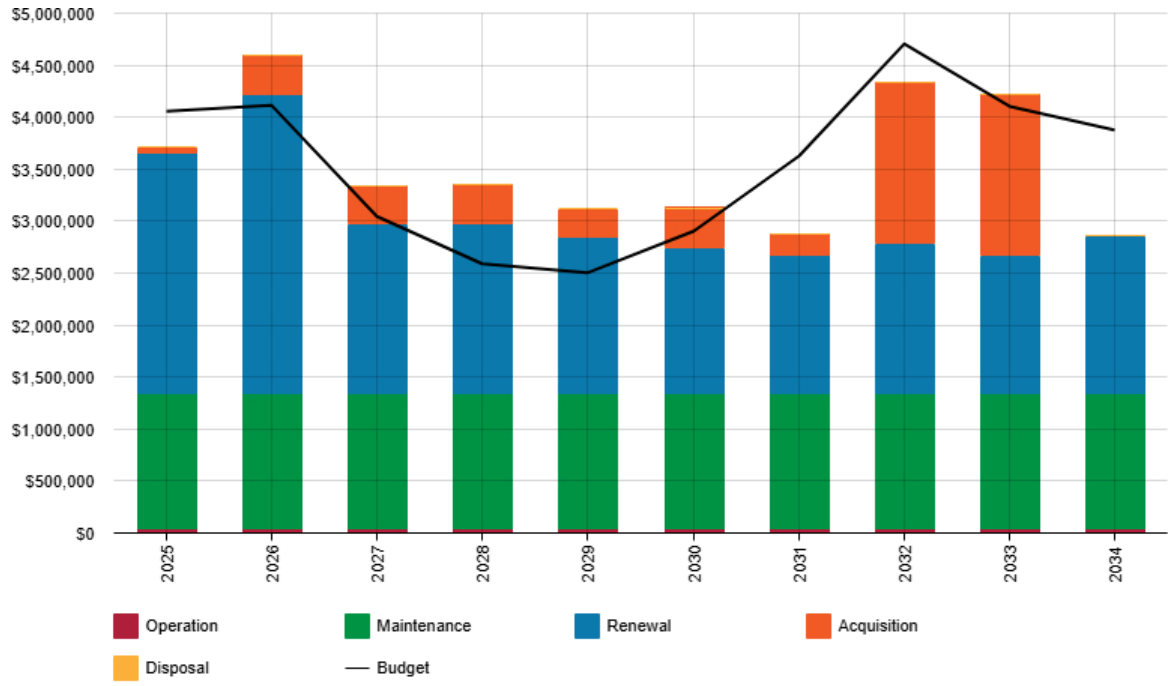
[11] This would include any assets that could be gifted to Council as part of a Land Division.

5.6 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.5. 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 in the current LTFP. 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 5.5: Lifecycle Summary



Present values (2024 costs) – no indexation applied.

The above chart shows that Operations, Maintenance and Upgrade forecast and budget match on a year by year basis, and while renewal budget over the 10 years closely matches forecast overall, there is a funding gap for kerb and footpath to be further considered in future asset plans, which is within the capacity of the total budget but is not allocated in the LTFP to kerb and footpath.

6 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'[12].

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. 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
Sealed Road Surface	Surface degradation and cracking due to delayed renewal	Water ingress may lead to structural failure of base if not treated on time significantly increasing future renewal costs
Footpaths and Pram Ramps	Cracking and raised edges	Safety issues for pedestrians - trip hazards

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 6.1 below.

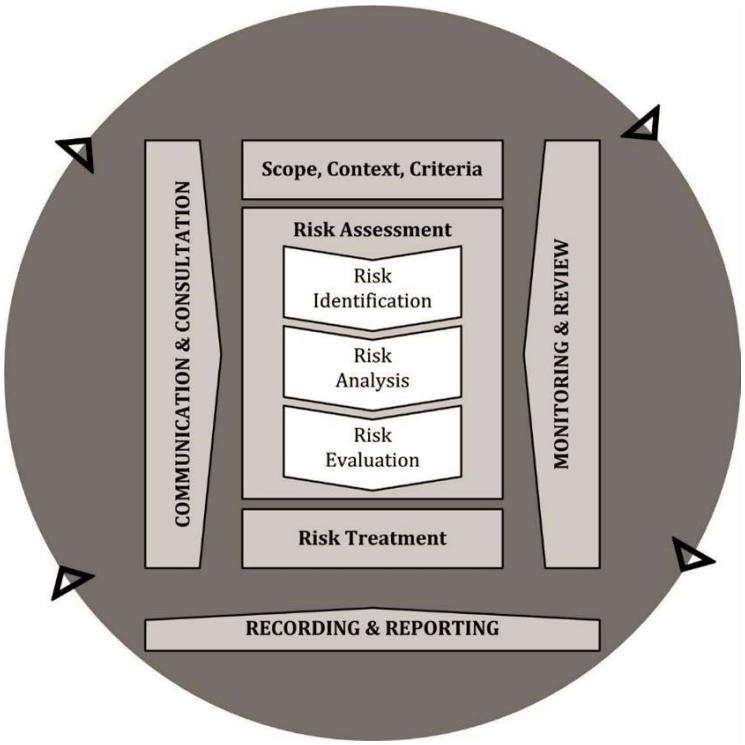
It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

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

[12] *ISO 31000:2009, p 2*

[13] *Risk Management Framework*

Figure 6.1: 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[14] 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 treatment plan is shown in. It is essential that these critical risks and costs are reported to management and the Council.

[14] *Risk Management Framework*

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
Loss of Key Staff	Reduction in the levels of service, loss of technical skills and local knowledge to support the maintenance and renewal of transport assets	H	Implement a corporate process to best engage key staff and update the documentation of current work practices. Build redundancy and cross skilling into the team structure.	L	Ongoing costs for staff training and cross skilling are included in the operations budget
Environmental impact	Damage to assets because of significant natural event related to River Murray flooding	H	Proactive systems to identify damage and seek external funding support	M	Unbudgeted cost when this rare event occurs
	Increasing Rainfall event intensity potentially leading increased washouts on unsealed roads and laneway	H	Implement storm response procedure and a proactive inspection program	L	$60K per annum in the operations budget
Sealed Roads	Road damage with increased in heavy vehicles traffic	H	Restrict access	L	No budget allocated Consider if some roads need upgrading to demand
	Pavement failures due to poor past construction practices	H	Increase road inspections to plan and program either proactive pavement patching or planned renewal	M	Additional budget allocated on an isolated basis for specific roads requiring pavement rehabilitation
Footpath and Kerb	Public claims against Council for injuries resulting from falls on footpaths and/or kerbs	H	Shift to proactive maintenance through regular inspection	M	Will require reallocation of existing roles to resource the inspection effort
Bridge	bridge collapse/failure/compromise	H	Reallocate to Transport asset register and undertake routine condition assessments on all bridges	L	No additional budget allocated
Grant Funding Availability	Grant Funding fluctuation may impact Councils ability to manage ongoing renewal requirement	H	Continue to advocate for and seek grant funding	M	Will require reallocation of existing roles to resource the advocacy effort

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.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

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:

- Road maintenance activities beyond the maintenance budgets and agreed service levels.
- Footpath upgrade to expand the footpath network
- Kerb and footpath renewal will not meet demand unless LTFP reallocates funds to kerb and footpath renewal in line with forecast

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:

- Potential for some assets to not be renewed at the optimum times leading to condition deterioration beyond agreed service levels resulting in more expensive treatments.
- Sub optimal road and footpath condition e.g. potholes, rideability, cracking

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:

- Dissatisfaction with road and footpath network condition and extent
- Potential for injury or property damage

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

7 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).

7.1.2 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[15] for transport assets has been calculated to be 100%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have at least 100% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget, and the cumulative surplus, is illustrated in Appendix D.

7.1.3 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 (demand) work can be compared to the proposed Long Term Financial Plan (LTFP) budget over the first 10 years of the planning period to identify any funding shortfall or surplus.

The demand forecast operations, maintenance and renewal costs over the 10 year planning period is $3,041,281 on average per year.

The proposed LTFP budget for operations, maintenance and renewal funding is $3,041,038 on average per year giving a negligible 10 year funding deficit per year. This indicates that 100% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed LTFP budget provided the allocation to asset classes is reviewed in budgeting to avoid kerb and footpath service levels dropping further as described in renewals above

Note, these calculations exclude acquired assets.

Council may give consideration to more closely aligning the LTFP to the Demand forecasts in its next LTFP review.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 100% for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

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

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

Table 7.1 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 in 2024 dollar values.

Table 7.1: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operations	Maintenance	Renewal	Disposal
2025-26	$50,000	$45,229	$1,303,595	$2,309,274	$0
2026-27	$380,250	$45,229	$1,303,595	$2,869,948	$0
2027-28	$360,150	$45,229	$1,303,595	$1,623,836	$0
2028-29	$377,996	$45,229	$1,303,595	$1,633,040	$0
2029-30	$266,000	$45,229	$1,303,595	$1,501,144	$0
2030-31	$386,460	$45,229	$1,303,595	$1,393,318	$0
2031-32	$196,707	$45,229	$1,303,595	$1,327,146	$0
2032-33	$1,550,000	$45,229	$1,303,595	$1,435,872	$0
2033-34	$1,550,000	$45,229	$1,303,595	$1,321,808	$0
2034-35	$0	$45,229	$1,303,595	$1,509,185	$0
Total	**$5,117,563**	**$452,290**	**$13,035,950**	**$16,924,571**	**$0**
Average	**$511,756**	**$45,229**	**$1,303,595**	**$1,692,457**	**$0**

7.2 Funding Strategy

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

The financial strategy of Council 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 at cost to replace service capacity, etc and are as at 1 July 2024:

Replacement Cost (Current/Gross)	$128,425,089
Depreciable Amount	$51,373,297
Depreciated Replacement Cost[16]	$77,051,792
Depreciation (2024-25 estimate)	$2,458,748

7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added to the network.

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:

- Continue 4 yearly condition assessments
- Road Surface Manager will continue to be implemented across transport assets
- Footpath Operational Management Pilot will continue to be implemented.

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 7.2.

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

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

Table 7.2: 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 7.3.

Table 7.3: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	B. High	Community Plan & Growth Strategy
Growth projections	B. High	Community Plan & Growth Strategy
Acquisition forecast	C -Medium	Existing projects included from staff
Operation forecast	C - Medium	Budget values utilised
Maintenance forecast	C - Medium	Budget values utilised with proactive maintenance plan to be developed
Asset values	C - Medium	condition data 4 years old
Asset useful lives	B. High	long history of performance developing in asset system review every 4 years with new data
Condition modelling	B. High	RSM and Conquest system and methodology sound
Disposal forecast	Not applicable	

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

8 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 accounting software, Synergysoft.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is the Transport Asset Register information held within Council's asset management software, Conquest.

8.1.3 Improvement Plan

It is important that Council recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. Council has a Managed Customer Agreement (MCA) in place with Tonkin with a working Asset Management System Improvement plan to support the small asset team that delivers on the requirements as the asset management system develop and mature. This together with targeted expert support provides a balanced approach to resourcing this improvement plan. Engagement with and commitment from the operational team will also be critical to success moving forward with proactive maintenance initiatives.

The improvement plan generated from this AM Plan is shown in Table 8.1.

Table 8.1: Improvement Plan

Task No.	Recommended Task / Action	Responsibility	Resources Required	Timeline
1.	Ensure future needs reflected in this asset Management Plan and the gaps in funding for demand renewals, are considered when Council reviews its Long-Term Financial Plan	Finance	Staff resources required to implement	Within 12 months
2.	Scope and plan next network condition assessment (surface, pavement, kerb and footpath and airport) to inform 1/7/26 valuation and Conquest upload	Asset Team	Staff resources required to implement with potential external support through MCA	Complete by Dec 26
3.	Consideration of a formal Footpath Network Report to identify DDA compliance shortfalls and to assist with future planning	Asset Team	Staff resources required to implement with potential external inspectors	2 years
4.	Develop a Footpath upgrade plan taking into account the requests of the various township communities, connectivity and DDA compliance	Asset Team	Staff resources required to implement with potential external support through MCA	3 years

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

Task No.	Recommended Task / Action	Responsibility	Resources Required	Timeline
5.	Recommend monitoring and undertaking of NHV network assessment, in consultation with DIT, to identify if the current road network, including intersections, is of a suitable standard to enable Heavy Vehicle routes within and through the region	Asset Team	Staff resources required to implement with potential external support by certified route assessor	3 years
6.	Continue to implement the development of operational procedures, process and system to capture works required and improve budgeting and allocation of resources	Asset Team	Staff resources required to implement with potential external support through MCA	In line with asset system improvement plan
7.	Continue to implement the proactive maintenance management in Conquest to capture footpath defects and costs to inform future resourcing and budget requirements	Operation Team	Staff resources required to implement with potential external support through MCA	Year 1
8.	Renew assets when they approach or meet end of service life in a planned and cost-effective manner by developing a clearly defined multi year renewal program in line with lifecycle analysis of Transport assets (suggest a rolling 3-year renewal plan of works)	Asset Team	Staff resources required to implement with potential external support through MCA	In line with asset system improvement plan
9.	Investigate implementation of extended length / tourism vehicles on-road parking options in major attraction and retail areas by undertaking an audit of larger towing vehicles visiting the region	Asset Team	Staff resources required to implement with potential external traffic expert support	Year 3
10.	Plan to undertake research into environmental impacts for infrastructure assets in future revisions of the Transport AM Plan.	Asset Team	Staff resources required to implement with potential external expert support	Year 3
11.	Develop Climate Change resilience strategies for infrastructure assets in future revisions of the Transport AM Plan	Asset Team	Staff resources required to implement with potential external expert support	Year 3
12.	Consider the need for bike paths and footpaths between schools, parks, and major township infrastructure etc when setting footpath and walkway renewals and maintenance programs	Asset Team	Staff resources required to implement with potential external expert support	Year 3
13.	Develop a program of planned inspections of the road network in Conquest, including scheduled shoulder works as maintenance. Inspections should be undertaken and findings assessed prior to any renewal works annually.	Operations Team	Staff resources required to implement with potential external support through MCA	In line with asset system improvement plan
14.	Continue to maintain laneways on the basis of being a secondary point of access to properties. Allocation of a nominal budget only in a planned fashion	Asset Team	Staff resources required to implement	Year 1

Task No.	Recommended Task / Action	Responsibility	Resources Required	Timeline
15.	Review the kerbing assets identified shortfall in renewal funding versus patching works expenditure impact on extending the kerb assets useful lives	Asset Team	Staff resources required to implement with potential external support through MCA	Year 2
16	Include bridges in Transport asset class and introduce inspections and ongoing maintenance. Include Bridges in future asset plan for transport	Asset Team	Staff resources required to implement with potential external support through MCA	Year 2
17.	Develop upgrade plan in line with community plan and future expansion of the road network with development	Asset Team	Staff resources required to implement with potential external support through MCA	Year 3

8.2 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 within 2 years of each Council election[19].

8.3 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%).

[19] *Local Government Elections are next to be held in November 2026*

9 References

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- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- 2024-2035 Community Plan
- 2024-2025 Annual Plan and Budget

10 Appendices

10.1 Appendix A Upgrade/Acquisition Forecast

A.1 – Upgrade/Acquisition Forecast Assumptions and Source

The information provided is from Council staff knowledge at the time of development of this AM Plan.

A.2 – Upgrade/Acquisition Project Summary

The project titles included in the lifecycle forecast are included here. It should be noted that these are provided for the purposes of development of this AM Plan and should not be considered a final commitment by Council to undertake the works, in the year identified or within this 10-year planning process.

Year	Project	Estimate of Project Cost
2025-2026	Footpath Upgrade- James Ave/Ninth Street	$50,000
2026-2027	Kerb – Lyrup – Wilson Parade, Rupert Court	$380,250
2027-2028	Kerb – Hale Street	$360,150
2028-2029	Kerb – Ral Ral Ave Service Rd, Twenty First St	$377,996
2029-2030	Kerb – Hale Street (Marrara St to Paringa St)	$266,000
2030-2031	Kerb – Twenty First St (Pyap St to end) Riverview Dr (Duthie Crt)	$386,460
2031-2032	Pyap St (21st St to 22nd St) Sonnemann's Ln	$196,707
2032-2033	Heavy Vehicle Intersection Upgrades	$1,050.000
2033-2034	Heavy Vehicle Intersection Upgrades	$1,050.000

A.3 – Acquisition Forecast Summary

The following table shows the Constructed forecasts as identified by Council staff and should not be considered a final commitment by Council to allocate budgets as indicated by year.

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2025-2026	$50,000	$0	$0
2026-2027	$380,250	$0	$0
2027-2028	$360,150	$0	$0
2028-2029	$377,996	$0	$0
2029-2030	$266,000	$0	$0
2030-2031	$386,460	$0	$0
2031-2032	$196,707	$0	$0
2032-2033	$1,550,000	$0	$0
2033-2034	$1,550,000	$0	$0
2034-2035	$0	$0	$0

10.2 Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

The below information relating to the Operation Forecast has been developed from Council staff knowledge at the time of developing this AM Plan.

B.2 – Operation Forecast Summary

Summary for Operation Forecasts.

Table B2 - Operation Forecast Summary

Year	Aerodrome	Bridges	Traffic Management	Total
2025-2026	$25,304	$3,805	$16,119	$45,229
2026-2027	$25,304	$3,805	$16,119	$45,229
2027-2028	$25,304	$3,805	$16,119	$45,229
2028-2029	$25,304	$3,805	$16,119	$45,229
2029-2030	$25,304	$3,805	$16,119	$45,229
2030-2031	$25,304	$3,805	$16,119	$45,229
2031-2032	$25,304	$3,805	$16,119	$45,229
2032-2033	$25,304	$3,805	$16,119	$45,229
2033-2034	$25,304	$3,805	$16,119	$45,229
2034-2035	$25,304	$3,805	$16,119	$45,229

10.3 Appendix C Maintenance Forecast

.1 – Maintenance Forecast Assumptions and Source

The information relating to the Maintenance Forecast has been developed from Council staff knowledge at the time of developing this AM Plan

C.2 – Maintenance Forecast Summary

Summary for Maintenance

Table C2 - Maintenance Forecast Summary

Year	Aerodrome	Bridges	Footpath & Kerbing	Roads-sealed	Roads-formed	Roads-natural formed	Roads - unformed	Traffic Manage	Medians	Total
2025-2026	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2026-2027	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2027-2028	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2028-2029	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2029-2030	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2030-2031	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2031-2032	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2032-2033	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2033-2034	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595
2034-2035	$52,652	$6,209	$231,527	$610,739	$171,407	$3,307	$1,930	$83,797	$142,028	$1,303,595

10.4 Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

The information relating to the Renewal Forecast has been developed from extensive modelling by Tonkin and Council staff at the time of AM Plan development.

D.2 – Renewal Project Summary

The renewal projects included in the forecasts are detailed in Table D2.

Table D2 – LTFP Renewal Forecast Summary

Year	Renewal Project Forecast	Estimated Cost
2025-26	Unsealed Roads - RSM	$276,739
2025-26	Sealed Roads RSM	$627,535
2025-26	Road Pavement Rehabilitation - Patey Drive	$300,000
2025-26	Road Pavement Rehabilitation - Renmark Plaza	$1,000,000
2025-26	Renmark Paringa Cycleway Renewal	$105,000
2026-27	Road Pavement Rehabilitation - Renmark Plaza	$1,000,000
2026-27	Footpath Renewal - Renmark Paringa Cycleway	$406,350
2026-27	Kerb and Watertable Renewal	$73,440
2026-27	Unsealed Roads - RSM	$130,853
2026-27	Sealed Roads RSM	$1,096,098
2026-27	Footpath Renewal - Register (2025 and 2026)	$63,207
2026-27	Proactive Kerb Patching	$100,000
2027-28	Unsealed Roads - RSM	$219,875
2027-28	Sealed Roads RSM	$1,094,527
2027-28	Footpath Renewal - Register	$34,753
2027-28	Proactive Kerb Patching	$100,000
2027-28	Footpath Renewal - Renmark Paringa Cycleway	$106,943
2027-28	Footpath Renewal - Eighteenth St	$67,738
2028-29	Footpath Renewal - Fifteenth St	$71,964
2028-29	Unsealed Roads - RSM	$155,262
2028-29	Sealed Roads RSM	$1,098,456
2028-29	Footpath Renewal - Register	$166,550
2028-29	Kerb Renewal - Register	$40,808
2028-29	Proactive Kerb Patching	$100,000
2029-30	Unsealed Roads - RSM	$62,385

Year	Renewal Project Forecast	Estimated Cost
2029-30	Sealed Roads RSM	$1,097,755
2029-30	Footpath Renewal - Register	$71,049
2029-30	Kerb Renewal - Register	$93,194
2029-30	Proactive Kerb Patching	$100,000
2029-30	Footpath Renewal - Fifteenth St	$76,761
2030-31	Footpath Renewal - Para St	$39,440
2030-31	Unsealed Roads - RSM	$101,520
2030-31	Sealed Roads RSM	$1,097,885
2030-31	Footpath Renewal - Register	$54,473
2030-31	Proactive Kerb Patching	$100,000
2031-32	Unsealed Roads - RSM	$50,836
2031-32	Sealed Roads RSM	$1,098,224
2031-32	Proactive Kerb Patching	$100,000
2031-32	Footpath Renewal - Eighteenth St	$78,086
2032-33	Unsealed Roads - RSM	$153,335
2032-33	Sealed Roads RSM	$1,098,422
2032-33	Footpath Renewal - Register	$73,179
2032-33	Kerb Renewal - Register	$10,936
2032-33	Proactive Kerb Patching	$100,000
2033-34	Unsealed Roads - RSM	$44,209
2033-34	Sealed Roads RSM	$1,099,211
2033-34	Footpath Renewal - Register	$78,388
2033-34	Proactive Kerb Patching	$100,000
2034-35	Unsealed Roads - RSM	$158,351
2034-35	Sealed Roads RSM	$1,098,819
2034-35	Kerb Renewal - Register	$152,015
2034-35	Proactive Kerb Patching	$100,000

D.3 – Renewal Forecast Summary

The comparison of the renewal forecast and budget for the 10 years of the current LTFP is shown in Table D3 below.

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	LTFP Renewal Budget
2025-2026	$2,309,274	$2,658,738
2026-2027	$2,869,948	$2,384,674
2027-2028	$1,623,836	$1,337,012
2028-2029	$1,633,040	$863,562
2029-2030	$1,501,144	$887,230
2030-2031	$1,393,318	$1,168,969
2031-2032	$1,327,146	$2,081,233
2032-2033	$1,435,872	$1,806,093
2033-2034	$1,321,808	$1,205,852
2034-2035	$1,509,185	$2,528,780
Total	**$16,924,571**	**$16,922,143**
Average	**$1,692,457**	**$1,692,214**

10.5 Appendix E Disposal Summary

E.1 – Disposal Forecast Assumptions and Source

There are no disposals forecast for the 10-year planning period for transport assets.

10.6 Appendix F Budget Summary by Lifecycle Activity

The below table is based on the demand modelling outputs generated for the development of this AM Plan.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2025-2026	$50,000	$45,229	$1,303,595	$2,658,738	$0	$4,057,562
2026-2027	$380,250	$45,229	$1,303,595	$2,384,674	$0	$4,113,748
2027-2028	$360,150	$45,229	$1,303,595	$1,337,012	$0	$3,045,986
2028-2029	$377,996	$45,229	$1,303,595	$863,562	$0	$2,590,382
2029-2030	$266,000	$45,229	$1,303,595	$887,230	$0	$2,502,054
2030-2031	$386,460	$45,229	$1,303,595	$1,168,969	$0	$2,904,253
2031-2032	$196,707	$45,229	$1,303,595	$2,081,233	$0	$3,626,764
2032-2033	$1,550,000	$45,229	$1,303,595	$1,806,093	$0	$4,704,917
2033-2034	$1,550,000	$45,229	$1,303,595	$1,205,852	$0	$4,104,676
2034-2035	$0	$45,229	$1,303,595	$2,528,780	$0	$3,877,604
Total	**$5,067,563**	**$452,290**	**$13,035,950**	**$16,922,143**	**$0**	**$35,527,946**
Average	**$506,756**	**$45,229**	**$1,303,595**	**$1,692,214**	**$0**	**$3,552,795**

10.7 Appendix G Road Surface Manager (RSM) Modelling Outputs

The Road Surface Manager (RSM) modelling tool has been set up and used for this Asset Plan to support the forward works planning and budget allocation for Sealed and Unsealed roads. The intervention points and standard life between the road treatments were established as part of the 1 July 2021 valuation process and used for this RSM modelling. The treatment rates were updated to 1 July 2025 values using contract sealing rates for sealed roads, and labour and equipment rates for sheeted roads, as provided by Council.

RSM considers the way the road network responds to various budget scenarios considering the deterioration curves and increased cost for treating roads as they transition from optimal service to low serviceability. This can occur where the allocated budget does not allow roads to be treated when they are required.

The charts presented within this section show expenditure and total average network condition scores where 0 represents as new and 100 is total end of life (surface and pavement). Unsealed roads are treated around condition point 50-92, so it is assumed network average scores around 35 would be suitable for the unsealed network. The sealed network roads are treated around condition point 40-45, so it is assumed network average scores around 20-25 would be suitable for the sealed network.

For all modelling scenarios described within this section, the model starts 1 July 2025. The road network register was updated to 2024/2025 with capital works history undertaken since the previous full valuation in 1/7/21 (noting this plan is based on a desktop indexation to 1/7/24 for valuation reporting). The unlimited model is for a 40-year life, to include numerous treatment iterations for the entire network.

It should be noted that the condition data used for this modelling is from 2020 field inspections. It is recommended that the RSM model is updated when new condition data is collected.

10.7.1 Unlimited Budget Scenarios

The first step in the modelling process is to allocate an unlimited budget to see the demand for funding to optimise the overall road network condition.

Unsealed Roads Unlimited Budget

The modelling chart presented below indicates that as of 1 July 2025, the unsealed network is at, or above optimal condition and a lower demand of funding is required for the 10 year period, with a total 10-year demand of $1.61M. The demand is then increased over the next 10-year period (from Year 11 to 20), with a total 10-year demand of $4.36M.

If the demand for funding is budgeted and executed, the target network condition point fluctuates around 22 to 40 over the lifecycle of the unsealed road network.

Figure 10.1 Unsealed Roads - Unlimited Budget Expenditure

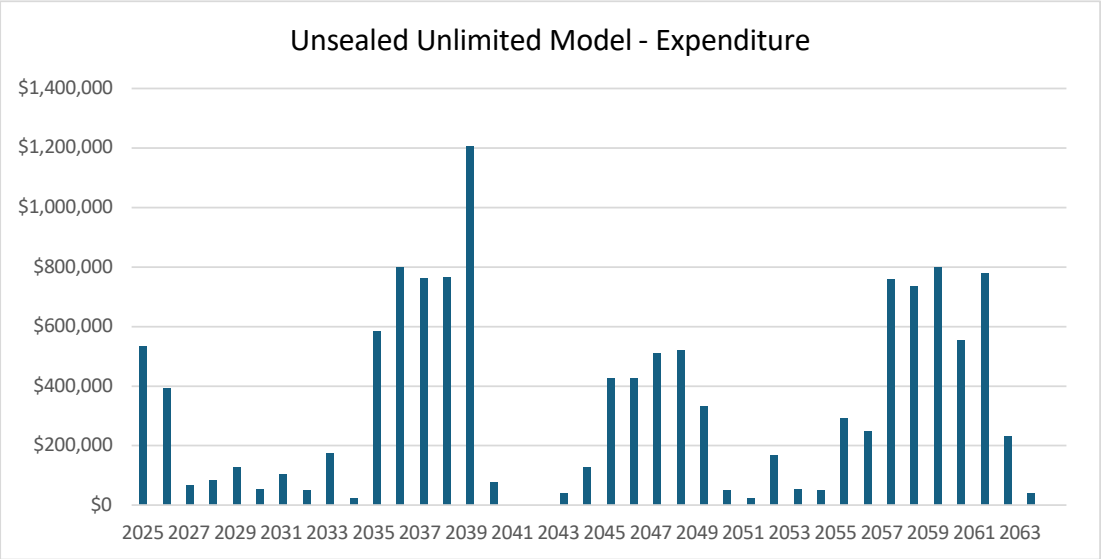
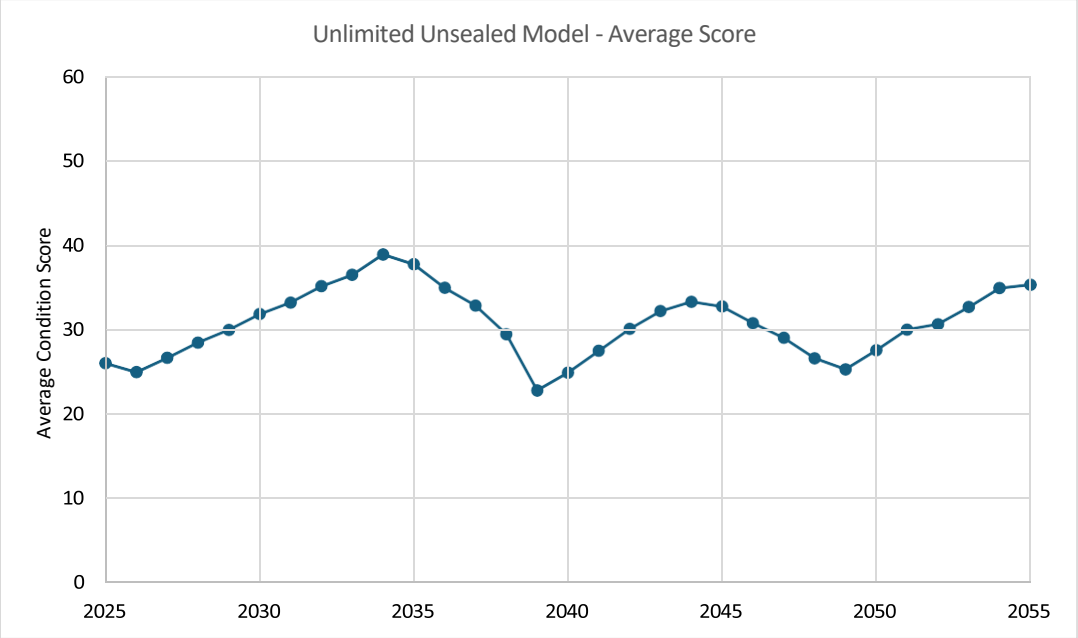


Figure 10.2 Unsealed Roads - Unlimited Budget Average Score



Sealed Roads Unlimited Budget

The modelling chart below indicates that as of 1 July 2025, the sealed network is below optimal condition. A higher demand of funding is required in Year 1 of the plan to deal with the backlog of roads that require treatment. The Year 1 demand is $1.9M to treat the backlog, with a total 10-year demand of $10.72M. The demand is generally consistent over the next 10-year period (from Year 11 to 20), with a total 10-year demand of $9.90M.

If the demand for funding is budgeted and executed, the target network condition point fluctuates around 18 to 26 over the lifecycle of the sealed road network.

Figure 10.3 Sealed Roads – Unlimited Budget Expenditure

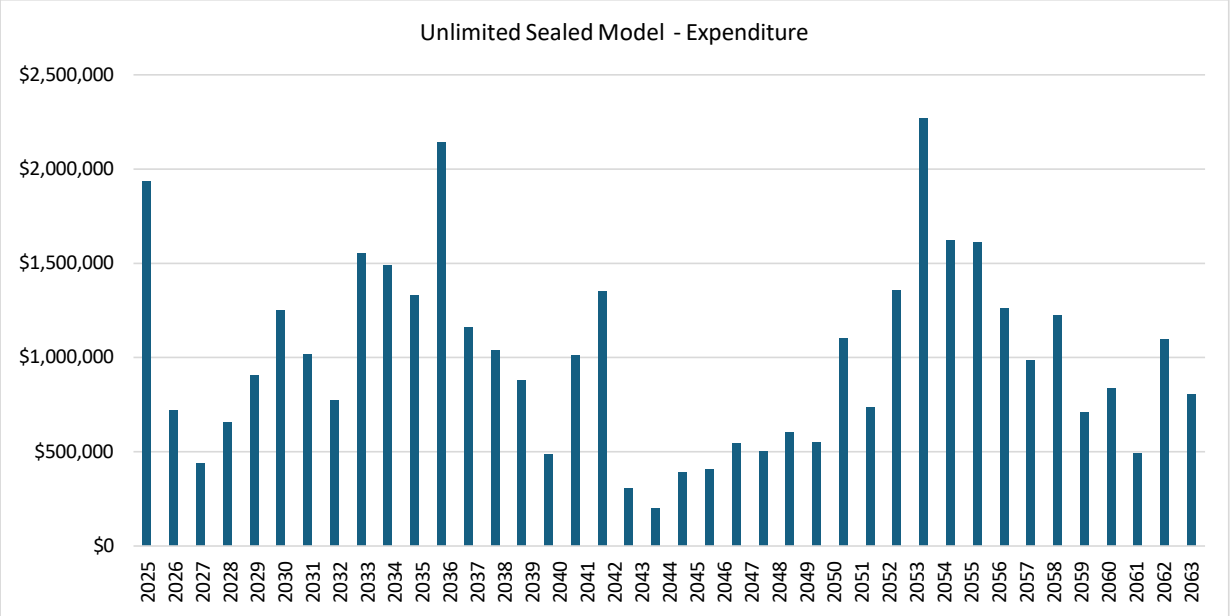
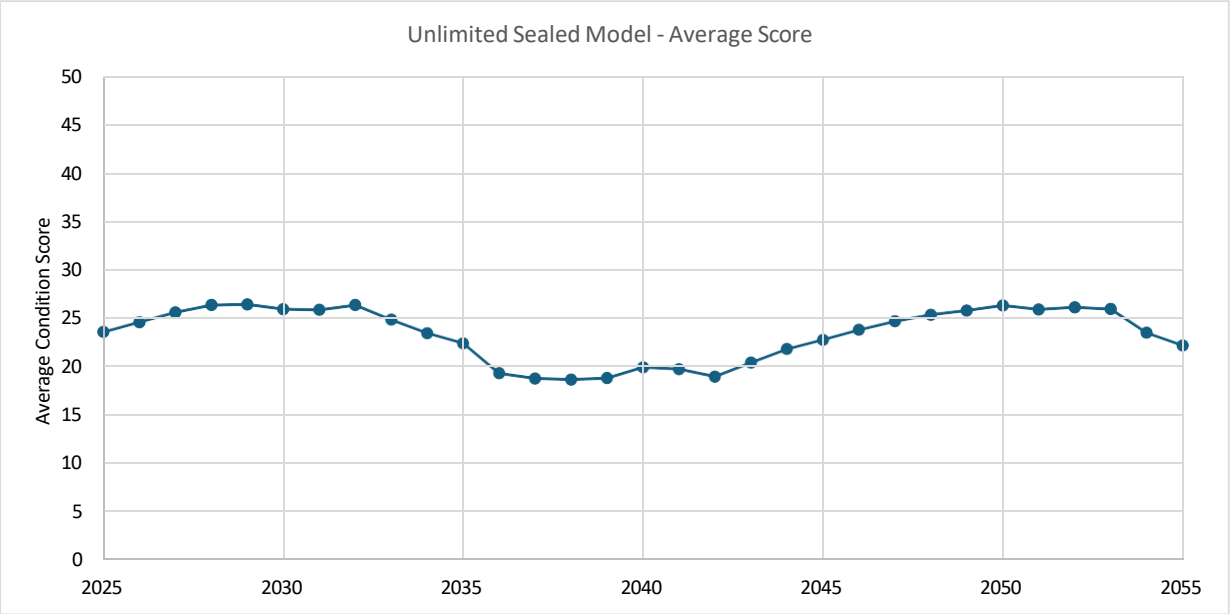


Figure 10.4 Sealed Roads - Unlimited Budget Average Score



Unlimited Budget Summary

The above Unsealed and Sealed network condition charts are deemed to be the target condition for the network for the purposes of this AM Plan. This plan aims to sustain the road network at optimum condition while providing the lowest cost model. The results from the fixed budget results are described in the following section, using the unlimited scenario results as a basis.

10.7.2 Other Budget Scenarios

Various budget scenarios were modelled for both the unsealed and sealed network. The outcomes are described within this section. The modelling attempts to make the annual cashflow uniform to meet the average long-term demand for funding.

Unsealed Roads Budgets

The following three budgets were modelled for unsealed roads:

- Scenario 1 - $160K Upper Limit
- Scenario 2 - $160K Upper Limit (including $220K Year 3*) & $440K Upper Limit after Year 10
- Scenario 3 - $400K Upper Limit

Note: *A higher budget was nominated to include long length roads (i.e. greater than 2km)

The budget for Year 1 of the model was nominated as $277,373 to match the committed 2025/2026 budget of the resheeting program.

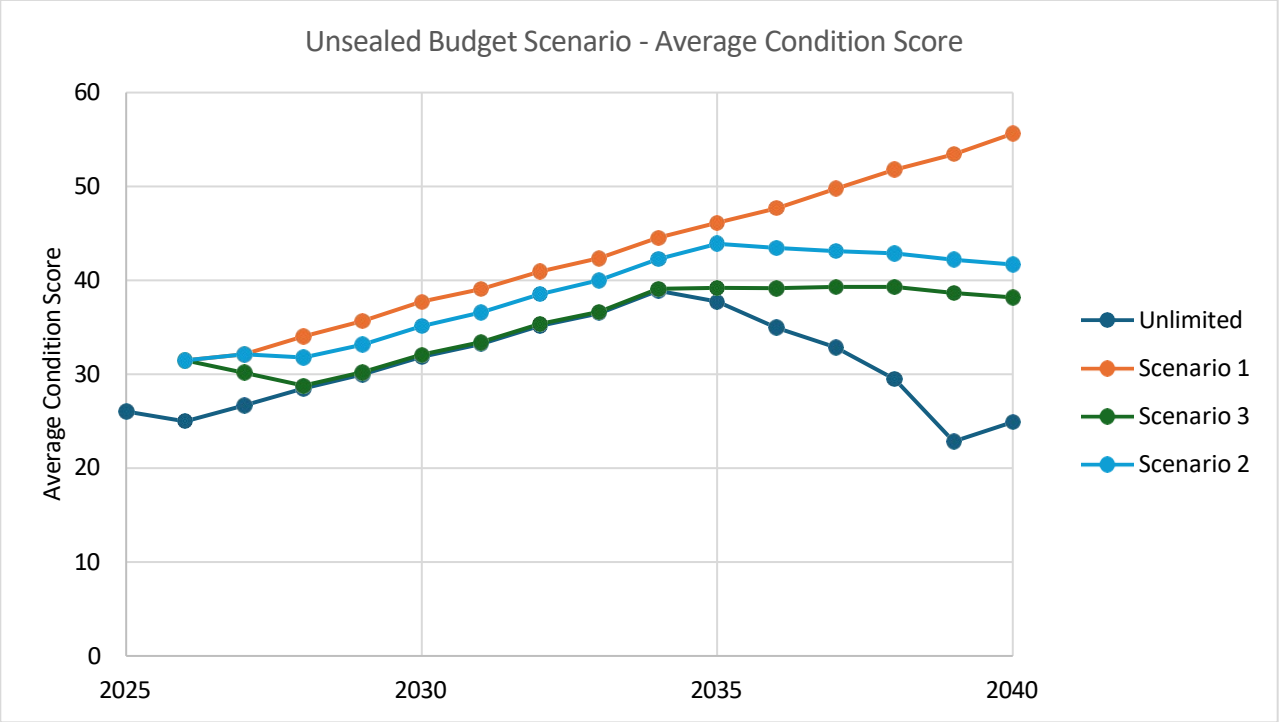
The results of all budget scenarios are shown in the figure below, including a comparison to the unlimited budget scenario (shown in dark blue). The results indicate that the current condition of the unsealed road network is in a good condition, which resulted in the road network progressively deteriorating until the network reaches the resheet intervention point after Year 10, requiring higher funding after Year 10.

Scenario 1 shows the road network progressively worsening over the entire model period, however this is partly due to the budget limit not allowing high length roads to be treated (i.e. greater than 2km length).

The modelling indicates that Scenario 2 and 3 generally align with the optimal budget, as it aligns closest to the average condition results from the unlimited model. For the first 10 years in both Scenario 2 and 3, the total budget allowance is generally not required every year. For instance, for Scenario 3 the total demand over the first 9 years is $1.5M (average of $166K/year) as opposed to the $400K upper limit modelled for this scenario. There will be some instances where a higher budget may be required to resheet long length road segments (i.e. greater than 2km) or Council could consider resheeting a portion of the road segment.

Council should be aware that after the 10 Year period, a higher budget of $440K will be required to sustain the unsealed road network

Figure 10.5 Unsealed Roads – Budget Scenarios Option 1, Option 2, Option 3 and unlimited



As the total budget allowance is not required to be spent within the first 9-years of the model, the plan would include bringing roads theoretical forward for renewal and potentially over servicing the road should Council allow for a uniform budget matching the upper limit of the scenarios. For the purpose of this plan, the proposed renewal budget matches the budget required to fund the renewal only which is typically lower than the upper limit.

Sealed Roads Budgets

The following four budgets were modelled for sealed roads:

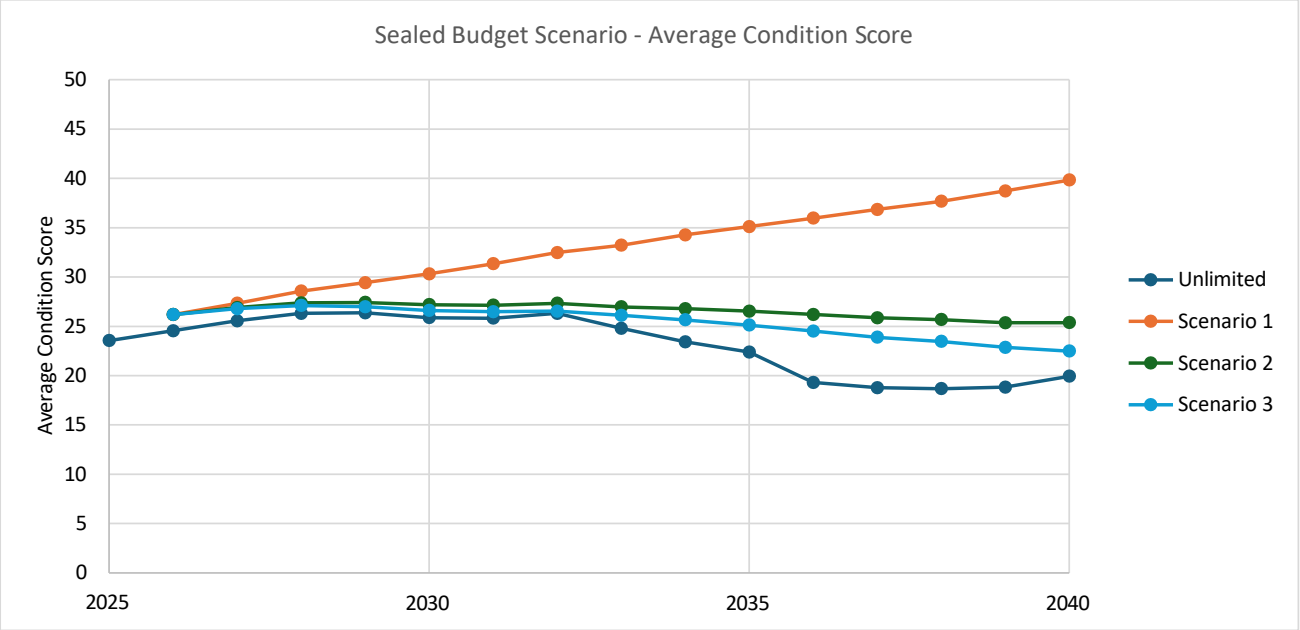
- Scenario 1 - $500K Upper Limit
- Scenario 2 - $1.0M Upper Limit
- Scenario 3 - $1.1M Upper Limit.

The results of budget scenarios 1 to 3 are shown in the figure below, including a comparison to the unlimited budget scenario (shown in dark blue). The modelling indicates a $500K budget (similar to Councils historic budgets) scenario results in the sealed network progressively worsening. Therefore, a budget that is less than or equal to $500K will not be sustainable to maintain the sealed road network.

The other budget scenarios, $1M and $1.1M, resulted in a progressive improvement of the network condition. The average network condition of the $1.1M budget best aligned with the unlimited model at the 15-year point.

The budget for Year 1 of the model was nominated as $629,573 to match the committed 2025/2026 budget of the sealing program.

Figure 10.6 Sealed Roads – Scenarios 1 to 3 and Unlimited



10.7.3 Recommendation

With consideration to the results described in the previous section, the following budget allocation has been developed for this asset plan:

- Unsealed Roads - Option 2 - $160K Upper Limit (including $220K Year 3) & $440K Upper Limit after Year 10 with $277,373 Year 1 to match approve budget.

The total demand for funding the unsealed roads network in the first 10 years is $1.35M, averaging $135K/year. This indicates that the unsealed road network does not require the upper limit budget of $160K/year

- Sealed Roads - Option 3 - $1.1M Upper Limit with $629,573 in Year 1 to match existing budget

The total demand in the first 10 years is $11M. This indicates that the sealed road network requires the upper limit budget in the model.