

ASSET MANAGEMENT PLAN

District Council of Grant
Transport Assets

District Council of

Grant



Document Control		Asset Management Plan - Alternate Method			
Document ID :					
Rev No	Date	Revision Details	Author	Reviewer	Approver
V1.11	May 2021	Update	IPWEA		
V1.12	August 2023	Update to asset valuation terminology	IPWEA		
V1.13	June 2024	Update Appendix D.4 – Renewal Plan	IPWEA		
V1.14	Sept 2024	Update and align to ISO 550XX:2024	IPWEA		
V1.15	Oct 2024	District Council of Grant Draft	M.Overland	V.McDonald	
V1.16	Nov 2024	District Council of Grant for Adoption	M.Overland	V.McDonald	
V1.17	Feb 2025	Adopted by Council	M.Overland	V.McDonald	Council

NAMS+ offers several Asset Management Plan templates.

The asset owner can choose the template that best suits their circumstances.

The structure and content of this template is aligned to the International Infrastructure Management Manual and the ISO 550xx and 31000 series of standards. In some instances, the asset owner may choose to reformat/restructure content or only use the Executive Summary. IPWEA takes no responsibility for the end product.

This Asset Management Plan should be prepared in line with the Strategic Asset Management Plan (also referred to as an AM Strategy) and AM Policy and used to inform the Long-Term Financial Plan.

© Copyright 2024 – All rights reserved
The Institute of Public Works Engineering Australasia

Contents

1.0	EXECUTIVE SUMMARY	5
1.1	The Purpose of the Plan.....	5
1.2	Asset Description.....	5
1.3	Levels of Service	5
1.4	Future Demand.....	5
1.5	Lifecycle Management Plan.....	6
1.6	Financial Summary.....	6
1.7	Asset Management Planning Practices.....	8
1.8	Monitoring and Improvement Program.....	9
2.0	INTRODUCTION	10
2.1	Background.....	10
2.2	Goals and Objectives of Asset Ownership.....	12
3.0	LEVELS OF SERVICE	15
3.1	Customer Research and Expectations.....	15
3.2	Strategic and Corporate Goals	15
3.3	Legislative Requirements.....	16
3.4	Customer Values	18
3.5	Customer Levels of Service	18
3.6	Technical Levels of Service	21
4.0	FUTURE DEMAND	26
4.1	Demand Drivers.....	26
4.2	Demand Forecasts	26
4.3	Demand Impact and Demand Management Plan	26
4.4	Asset Programs to meet Demand.....	27
4.5	Climate Change Adaptation	28
5.0	LIFECYCLE MANAGEMENT PLAN	30
5.1	Background Data.....	30
5.2	Operations and Maintenance Plan	34
5.3	Renewal Plan.....	36
5.4	Summary of future renewal costs	38
5.5	Acquisition Plan	39
5.6	Disposal Plan	40
5.7	Summary of asset forecast costs.....	40
6.0	RISK MANAGEMENT PLANNING	42
6.1	Critical Assets	42
6.2	Risk Assessment	43

6.3	Infrastructure Resilience Approach	45
6.4	Service and Risk Trade-Offs.....	45
7.0	FINANCIAL SUMMARY	47
7.1	Financial Sustainability and Projections	47
7.2	Funding Strategy	49
7.3	Valuation Forecasts	49
7.4	Key Assumptions Made in Financial Forecasts	49
7.5	Forecast Reliability and Confidence	50
8.0	PLAN IMPROVEMENT AND MONITORING	52
8.1	Data and Information Sources	52
8.2	Improvement Plan.....	52
8.3	Monitoring and Review Procedures.....	54
8.4	Performance Measures	54
9.0	REFERENCES	55
10.0	APPENDICES	56
Appendix A	Acquisition Forecast	56
Appendix B	Operation Forecast.....	57
Appendix C	Maintenance Forecast.....	58
Appendix D	Renewal Forecast Summary.....	63
Appendix E	Disposal Summary.....	64
Appendix F	Budget Summary by Lifecycle Activity	64

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 20 year planning period. 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 infrastructure assets that provide District Council of Grant's Transport Network.

The Transport network comprises:

- Roads
- Kerb and Gutter
- Footpaths
- Bicycle / Combined Use Paths
- Carparks

The above infrastructure assets have replacement value estimated at \$136,080,561.

1.3 Levels of Service

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

The main service consequences of the Planned Budget are:

- Unsealed Road Renewal requirements to achieve community aspired levels of service.
- New and Upgraded Assets without appropriate whole of life cycle cost analysis.
- Resolve all accessibility issues with Council footpaths immediately. In order to address non-compliance with the Disability (Access to Premises – Buildings) Standards 2010; disabled access works are to be addressed to coincide with upgrade projects.

1.4 Future Demand

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

- Steady increase in population and evolution in demographics
- Increase levels of Development, particularly in the 'Rural Living' space
- Environmental factors including Climate Change, Extreme Weather events and Environmentally Friendly Design and Construction practice development
- Increased demand for Heavy Vehicle utilisation driven by economic drivers
- Potential for legislative change

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.

- Asset Backlog Management and the practice of active Risk Management.
- Active Continuous Learning and sector engagement with the wider Civil Engineering Community.
- Close consultation and collaboration with Heavy Vehicle Industry, Local, State and Federal Government.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for the Transport Network is estimated as \$59,910,904 or \$5,991,091 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is \$54,761,528 or \$5,476,153 on average per year as per the Long-Term Financial plan or Planned Budget. This is 91.4% of the cost to sustain the current level of service at the lowest lifecycle cost.

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

The anticipated Planned Budget for Transport Network Assets leaves a shortfall of \$-514,938 on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets

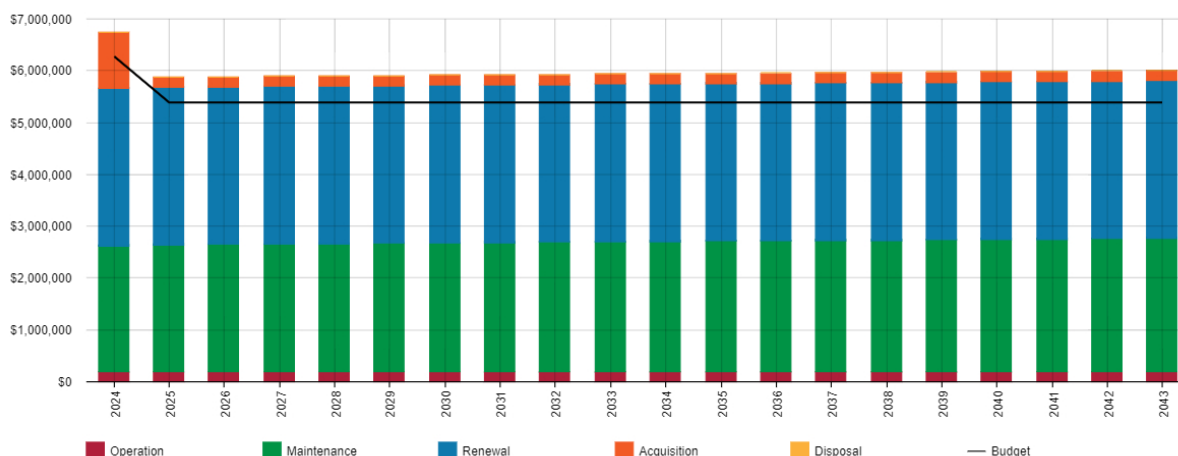


Figure Values are in current dollars.

Council plan to provide Transport Network services for the following:

- Operation, maintenance, renewal and acquisition of Roads, Kerb and Gutter, Footpaths and Car parks, to meet service levels set by District Council of Grant in annual budgets.
- Acquisitions and renewal of critical and strategic Transport Network Assets within the 10-year planning period.

1.6.2 What we cannot do

Council currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Seal all Unsealed Roads as requested by Council's constituents.
- Provide footpaths for all local roads in built up areas.
- Maintenance of Unsealed Roads to constituents aspired levels of service.
- Upgrade of all associated assets to Disability Standards.

1.6.3 Managing the Risks

Council's present budget levels are insufficient however given the good condition of Council's Transport Assets, Council can continue to effectively manage our risks into the medium.

The main risk consequences are:

- Public Safety Risk associated with road defects and disruption to the road network
- Public Safety Risk associated with footpath and kerb defects and disruption to the Transport Network
- Public Safety Risk specific to those that are physically challenged in all areas.

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

- Continuing Monitoring and Analysis of Asset Defects and Risk
- Prioritisation of High Volume and Risk Intensive assets
- Continued collaboration and consultation with Key Stakeholders in the Community including but not limited to general Community Groups, Seniors Groups, Disability Support Services, Disability Discrimination Action Planning Consultant Groups and Government Bodies

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- All current assets will remain within the organisation's ownership throughout the planning period, with no Assets being disposed of.
- Renewal forecasts are based on costs associated with like for like or modern equivalent replacement and are based off current design standards and any legislated requirements. They do not account for additional costs to upgrade assets.
- Renewal forecast have been derived from treatment rates established from quantity surveyor estimates or contract rates, applied to asset dimensions recognised within the Asset Management System
- The renewal forecasts consider asset condition, asset functionality and integrated planning principles.
- Asset useful lives align with current levels of service and are based on the judgment and experience of internal staff.
- Asset remaining useful life estimates are based off asset condition data, renewal intervention levels aligned with current levels of service and technical asset deterioration profiles which are based on the judgement and experience of internal staff and available industry standards.
- Asset useful life and remaining useful life estimates assume existing maintenance resourcing levels are continued.

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 Alternative Method was used to forecast the renewal lifecycle costs for this AM Plan. This methodology was adopted due to construction date data inaccuracy and condition rating data accuracy. Condition rating and valuation data was completed by HDS Australia (Consulting Engineering and Valuation) and signed off by Council's External Auditors Galpins and the District Council of Grants Audit Committee.

This AM Plan is based on a highly reliable data developed by staff in house in conjunction with and ratified by external engineers resulting in a high level of confidence in the information.

1.8 Monitoring and Improvement Program

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

- Review and update operations and maintenance standards, to develop more structured and proactive maintenance regimes which provide an acceptable balance between cost, risk, and customer expectations.
- Include changes into future revisions of this Asset Management Plan and Long-Term Financial Plan.
- Continue to work in partnership with both the State and Federal Governments to pursue external funding opportunities for both renewal and significant upgrade/new transportation projects.
- Comprehensive review of long-term Capital New and Upgrade program for integration into Asset Management Plans and Long-Term Financial Plans, to be integrated going forward.

2.0 INTRODUCTION

2.1 Background

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

The AM Plan is to be read with the District Council of Grant planning documents. This should include the Asset Management Policy and Asset Management Strategy, where developed, along with other key planning documents:

- District Council of Grant Strategic Plan 2024-2034
- District Council of Grant Long Term Financial Management Plan
- Inner Townships Master Plan
- Greater Mount Gambier Master Plan
- Port MacDonnell Urban Design Framework and Master Plan
- River & Coastal Communities Urban Design Framework and Master Plan
- Rural Living and Township Zones Boundaries Review and Master Plan

The infrastructure assets covered by this AM Plan include Roads, Kerb and Gutter, Footpaths and Carparks across the District Council of Grant Area. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to provide Vehicle and Pedestrian Transport Network services.

The infrastructure assets included in this plan have a total replacement value of \$136,080,561.

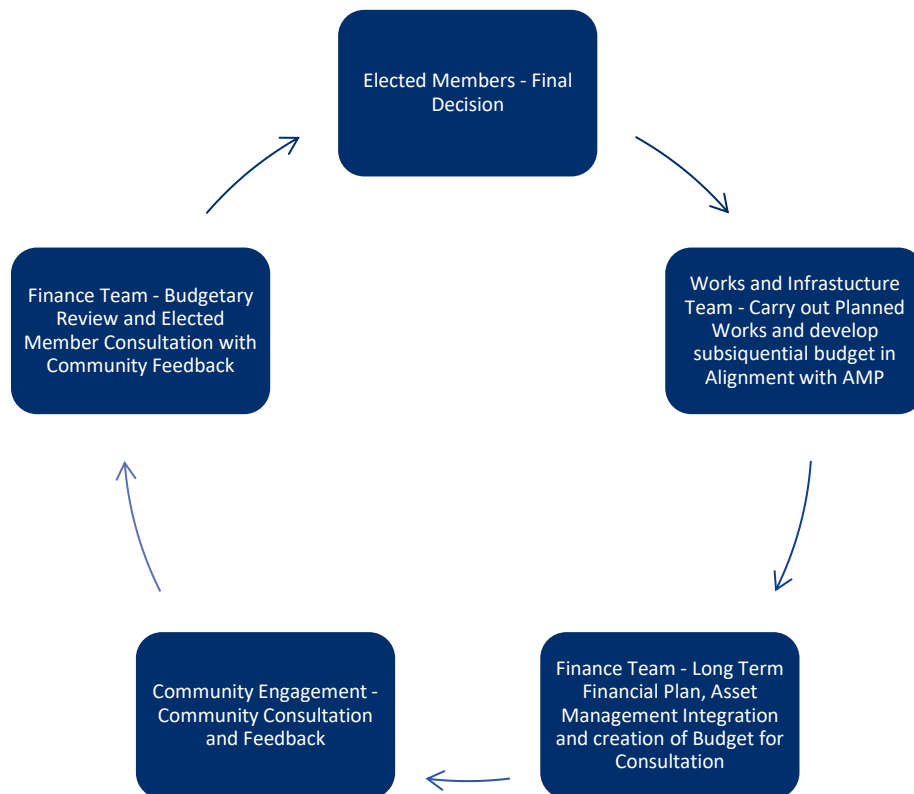
Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Members	Represent needs of community/shareholders, Allocate resources to meet planning objectives in providing services while managing risks, Ensure service sustainable.
CEO and Senior Management	Endorse the development of asset management plans and provide the resources required to complete this task. Set high level priorities for asset management development in Council and raise the awareness of this function among Council staff and contractors. Support the implementation of actions resulting from this plan and prepared to make changes to a better way of managing assets and delivering services. Support for an asset management driven budget and LTFP.

Key Stakeholder	Role in Asset Management Plan
Works Staff	Provide local knowledge level detail on all transport assets. They verify the size, location and condition of assets. They can describe the maintenance standards deployed and Council's ability to meet technical and customer levels of service.
Finance Staff	Consolidating the asset register and ensuring the asset valuations are accurate. Development of supporting policies such as capitalisation and depreciation. Preparation of asset sustainability and financial reports incorporating asset depreciation in compliance with current Australian accounting standards. Asset management and GIS support and administration.
Footpath Users	Those who have a need for access as pedestrians (including the very young), those with disabilities, and the elderly with somewhat limited mobility) and who have differing needs to motorists and cyclists.
Users of small / lightweight PMV	Includes users such as pedal cyclists, motorised buggies, wheel chairs, prams, etc. where consideration has to be given to access requirements (ramps, etc)
Residents and Businesses	Those who reside, work or have involvement with property adjoining the public road reserve.
Motor Vehicle Users	Those who use vehicles such as trucks, buses, commercial vehicles, cars and motor cyclists.
Emergency Services	Includes Police, Fire, Ambulance, SES for access.
Department of Infrastructure and Transport	Responsible road authority for State and Federal Roads. Must approve of Local Area Traffic Management treatments and intersection treatments on Local Roads. Also determine overall network principles and advise on State legislation and guidelines.
Utility Agencies	Those utility service providers sharing use of the road reserve (water, sewerage, gas, electricity and telecommunications).
Suppliers of Goods and Services	Need to be aware of and notify management of impacts that may enhance or impede their ability to provide key services.
State And Federal Departments	Periodic provision of support funding to assist with management of the network.

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Ownership

Council's 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.

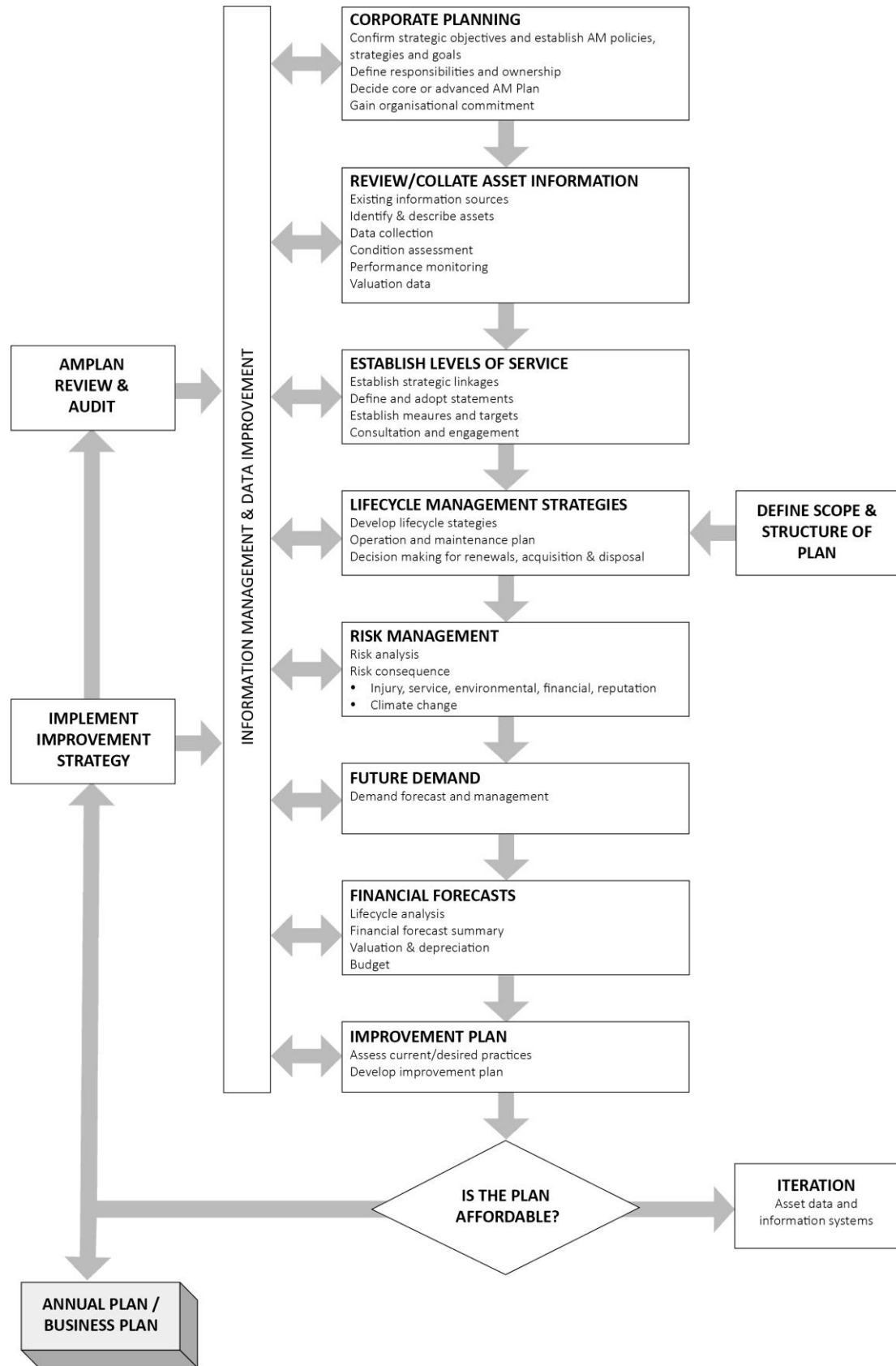
Other references to the outcomes and benefits, principles and objectives of asset management can be found in:

- ISO 55000:2024 Asset Management – Vocabulary, overview, and principles
- International Infrastructure Management Manual¹

A road map for preparing an AM Plan is shown on the next page.

¹ IPWEA International Infrastructure Management Manual (IIMM), Sec 2.1

Road Map for preparing an Asset Management Plan
Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the District Council of Grant. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the District Council of Grant 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.

3.2 Strategic and Corporate Goals

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

Our vision is:

We are a district of welcoming, inclusive and vibrant coastal and rural communities within the Limestone Coast. With a pristine environment, relaxed rural lifestyle, quality services and a prosperous local economy, this is a great place to live, conduct business and a welcoming destination to visit and stay.

Our mission is:

To provide a range of services which meet the environmental, social and economic needs of our community.

Strategic goals have been set by the District Council of Grant. The relevant goals and objectives 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	Objective	How Goal and Objectives are addressed in the AM Plan
Community	A connected, inclusive, resilient and engaged community	Governance of provision of Assets that facilitates the Communities ability to connect
Economy	A growing and vibrant economy, optimising our diverse primary industries and unique natural assets	Ensuring the fiscal responsibility of development, operation, maintenance, renewal or upgrade and disposal of the assets
Environment	A sustainable district that values the natural qualities and heritage that underpin our health, liveability and economy	Provision of strategy surrounding the development and renewal of assets in an environmentally conscious manner
Infrastructure	Reliable and contemporary infrastructure that meets the needs of our community, industry and visitors	Facilitate the discussion of appropriate levels of service, intervention point and ongoing budget for associated infrastructure works
Council	A strategic and financially sustainable Council that values its people and delivers quality services	Enable the strategic and financial conversation around management of assets and facilitate consultation and education

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

Legislation	Requirement
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.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term Financial Plan.
Highways Act 1926	An Act to provide for the appointment of a Commissioner of Highways, and to make further and better provision for the construction and maintenance of roads and works.
Civil Liability Act 1936	Liability of road authorities – Section 42, May 2004 inclusion in the Act to provide a replacement for the nonfeasance defence consequent to May 2001 High Court judgement.
Disability Discrimination Act 1992	The objectives of this act are to eliminate, as far as possible, discrimination against persons on the grounds of disability. It sets the standard for accessibility.
Development Act 1993	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate.
Work Health and Safety Act 2012	An Act to provide for the health, safety and welfare of persons at work.
Roads (Opening and Closing) Act 1991	An Act to provide for the opening and closing of roads.
Road Traffic Act 1961	An Act to consolidate and amend certain enactments relating to road traffic; and for other purposes.
Valuation of Land Regulations 2005	Provides for the regulations of valuing land under roads.
Roads (Opening and Closing) (Fees) Regulations 2006	Provides for the setting of fees for road openings and closures.
Local Government (General) Regulations 1999	Regulations applying to the Local Government Act 1999 and specific to: Register of public roads, By-laws—roads and Minor alterations of roads.

National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
--	---

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

Service Objective:			
Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Well maintained and suitable sealed road network.	Number of customer requests relating to sealed road maintenance	<20 Per Annum	Expected to be maintain in the short term
Well maintained and suitable unsealed road network.	Number of customer requests relating to unsealed road maintenance	<200 Per Annum	Expected to be maintained in the short term
Well maintained and suitable kerb network.	Number of customer requesting relating to kerb maintenance	<10 Per Annum	Expected to be maintained in the short term

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

Service Attribute	Level of Service Objective	Performance Measure	Desired Level of Service	Current Level of Service
Quality/ Condition	Well maintained and suitable sealed road network.	Number of customer requests relating to sealed road maintenance	< 20 per annum	Currently Meeting Target (2017/18 – 10)
		All unsealed roads within townships to be sealed	100% of unsealed roads within townships to be sealed by the year 2030	Currently On Target to Achieve
	Well maintained and suitable unsealed road network.	Number of patrol grades per year	80% of all major roads graded twice per year 80% of all minor roads graded a minimum of once per year * Subject to environmental factors	Currently Meeting Target
		Number of customer requests relating to unsealed road maintenance	< 200 per annum	Currently Meeting Target (2017/18 – 181)
	Well maintained and suitable footpath network.	Number of customer requests relating to footpath maintenance	< 20 per annum	Currently Meeting Target (2017/18 – 0)

	Well maintained and suitable kerb network.	Number of customer requesting relating to kerb maintenance	< 10 per annum	Currently Meeting Target (2017/18 – 2)
		All roads within townships to have a constructed kerb and watertable	100% of roadways within townships to have kerbs by 2030	Currently On Target to Achieve
	Well maintained and suitable bridges.	No. of customer requests relating to bridge maintenance	< 5 per annum	Currently Meeting Target (2017/18 – 0)
	Sealed Road network condition maintained to an acceptable level.	Routine Condition Assessment	Overall average condition is maintained at 2.5 out of 5 for pavements and surface.	Currently Meeting Target Surface: 1.7 out of 5 Pavement: 1.6 out of 5
	Unsealed Road network condition maintained to an acceptable level.	Routine Condition Assessment	Overall average condition is maintained at 3 out of 5.	Currently Meeting Target 2.8 out of 5
	Footpath network condition maintained to an acceptable level.	Routine Condition Assessment	Overall average condition is maintained at 2 out of 5 for constructed footpaths.	Currently Meeting Target 1.5 out of 5
	Kerb network condition maintained to an acceptable level.	Routine Condition Assessment	Overall average condition is maintained at 2 out of 5 for kerbs.	Currently Meeting Target 1.6 out of 5
	Bridge network condition maintained to an acceptable level.	Routine Condition Assessment	Overall average condition is maintained at 2 out of 5 for all bridges.	Only one bridge in Council area which has been recently assessed as a 3 out of 5
Function/ Safety	Road assets meet	Community Surveys	> 60% satisfaction (being score	64% (2011)

	community needs.		between 1 to 5, out of 10)	
	Road line marking is well maintained.	Line marking is adequate and clearly visible	95% of all line marking is fair condition or better	Not Currently Measured
	Safe and reliable road network.	Number of settled injury and property damage claims attributable to road condition	< 2 claims per year	Currently Meeting Target Nil Claims Settled in 2017/18
	Safe and reliable footpath network.	Number of settled injury and property damage claims attributable to footpath condition	< 2 claims per year	Currently Meeting Target Nil Claims Settled in 2017/18
Capacity/ Utilisation	Roads and bridges are available for public use all year round.	Number of road and bridge closures due to degraded asset condition	< 5 per annum	Currently Meeting Target Nil Closures in 2017/18

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.²

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

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition Upgrade / New Projects	To upgrade and further develop the road network to ensure it safe, fit-for-purpose and meets the needs of the community	Delivery of key upgrade/new projects	Upgrade/new projects aligned to Strategic Plan objectives are initiated through the Business Plan and Budget process on an annual basis, where projects are evaluated and prioritised based on strategic alignment and financial capacity.	Upgrade/new projects aligned to Strategic Plan objectives are informed by Annual Business Plan, with financial requirements accommodated into the Long-Term Financial Plan. Initiatives are confirmed to proceed annually through the Business Plan and budget process.
Upgrade / New Projects	Provision of a safe road network to support development	Inspection and testing of roads built by developers	All developers are required to submit compaction testing and seal rates for built roads and inspections are completed by appropriate staff	All developers are required to submit compaction testing and seal rates for built roads and inspections are completed by appropriate staff
		Budget	<i>As adopted annually in BP&B</i>	<i>To be developed</i>
Operation Condition Audits	To collect asset condition	Frequency of full condition	Every 6 Years	Every 5 years

² IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
	data to inform capital renewal planning and revaluation	audit of road network		
Street Sweeping	To ensure roads are clean and free of debris	Street sweeping frequency	As required based on inspection	To be reviewed with planned updates to operations and maintenance standards
		Budget	<i>Condition Assessment of Assets \$100,000 annually Street Sweeping \$85,000 Annually</i>	<i>Condition Assessment of Assets \$100,000 annually Street Sweeping \$85,000 Annually</i>
Maintenance Patrol Grading	Maintenance of Unsealed Roads to a Safe and Trafficable Standard	Frequency of Patrol Grading	Twice per year or less subject to Weather	2-3 Times per year subject to weather
Maintenance Activities	To ensure roads are maintained in a serviceable condition free of hazards	Completion of planned and reactive maintenance	Maintenance works are delivered based on priority (location and severity) with consideration of available budget	To be reviewed with planned updates to operations and maintenance standards
Maintenance Activities	To ensure roads are maintained in a serviceable condition free of hazards	Less than 5% of Unsealed Roads in Condition 4 or 5	2.08%	<5%
		Budget	<i>\$2,431,988 per Year</i>	<i>Average \$2,515,075 over the lifecycle forecast</i>

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
Renewal Renewal Projects	To ensure assets are renewed, providing service in line with community expectations at lowest lifecycle costs	Asset renewal funding ratio	85% (existing Asset Management Plan)	90-100% (assuming budget is adopted)
	Renewal of Road Seals	Less than 10% of Seal Area Condition 4 and less than 5% Condition 5	9.53% Condition 4 4.33% Condition 5	<10% Condition 4 <5% Condition 5
	To ensure carpark assets are renewed, providing service in line with community expectations	Carpark Condition Rating is Condition 4 or better	<i>All carparks are currently condition 3 or better</i>	<i>Condition 4 or better</i>
	To ensure kerb assets are renewed, provide appropriate drainage and free from trip hazards	Less than 5% of Kerb Assets are Condition 4 or greater	5.21% Condition 4 or worse	<5% are Condition 4 or worse
	To ensure Pavements under Seals are renewed, providing service in line with Community Expectations	No pavement under sealed road to be Condition 3 or greater	3.79% of Councils 568km of Sealed Road is Condition 3 or greater	<i>Given our access to high quality stone, no sealed road should be condition 3 or greater</i>
		Budget	\$2,570,557	\$3,039,000

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

*** No planned Disposals or associated expenditure are expected as part of this Asset Management Plan

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

4.0 FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecasts

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

4.3 Demand Impact and Demand Management Plan

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

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

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

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Area Growth	2021 ABS Census Population Data: Total: 8636 65+ years: 19.2% <19 years: 22.8% Median Age 45 years Senior to District Migration in 2021 of 300 people	Expected Growth (2023 ABS Estimated Residential Population 9044)	Area growth will place increasing demands on transportation infrastructure, with growing volumes of pedestrians, motorists, and cyclists using the network to get into Mount Gambier and around the District. This will result in increased level of service expectations as well as competing demands for the	Delivery of prioritised upgrade/new projects identified in the Strategic Plan and key Corporate planning documents to enhance the transportation network and accommodate District growth through upgrading existing assets and creating new assets to align service provision with the evolving needs of the community. This Asset Management Plan will ensure asset renewals will consider and align where practical with these

			services provided by our transportation assets (e.g. Road, pedestrian, and cycling infrastructure).	key upgrade/new initiatives.
Aging Population	65+ years: 19.2% <19 years: 22.8% Median Age 45 years Senior to District Migration in 2021 of 300 people	Expected Growth in the Aging Population due to moderate climate, lower cost of living and high middle-aged population.	Increase focus on levels of service provided by footpaths, roads, carparks in respect to access and egress and elevated risk to the aging population	Implementation of Council's Disability Access Inclusion Program, continued consultation with at risk communities and inspection / risk management of assets.
Climate Change	Current weather patterns starting to change	Increased Extreme Weather Events and Rising Sea Levels	Potential for damage to existing Infrastructure and reduced useful life of components	• Ensuring construction and maintenance of Assets aligns with current and evolving best practice • Continued research and training in new technology and construction standards • Infrastructure Planning process to continue to include Climate Change Risk Management

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 5.5.

Acquiring new assets will commit the District Council of Grant 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.³

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

Risk and opportunities identified to date are shown in Table 4.5.1

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

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Increase in Extreme Weather Events	Increased water based emergency events on Transport Assets	Increase risk of flooding with potential to impact homes and business	Increase inspection and maintenance of stormwater and drainage network Implementation of high requirements of stormwater management with new developments
		Increased risk of road damage due to flood	Improvements to drainage as part of road renewal and maintenance program

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

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

Table 4.5.2 summarises some asset climate change resilience opportunities.

³ IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

Table 4.5.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
Township and Residential Roads	Increase risk of flooding with potential to impact homes and business	• Inclusion of higher levels of drainage including but not limited to Swale Drains, Drainage Reserves, Stormwater Drainage Bores to Township and Residential Road Development processes • Improvements to drainage to be made along township roads as a part of Renewal works, particularly in areas with recorded stormwater holding or drainage issues • Consideration for PMB and Crumb Rubber Seals for road reseals • Drainage bore and stormwater network cleaning program review
Rural Roads	Increased risk of road damage due to flood	• Review of Stormwater Culvert inspection and cleaning program • Consideration for swale development or cleaning as part of Road Renewal and Maintenance Program

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.

5.0 LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

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

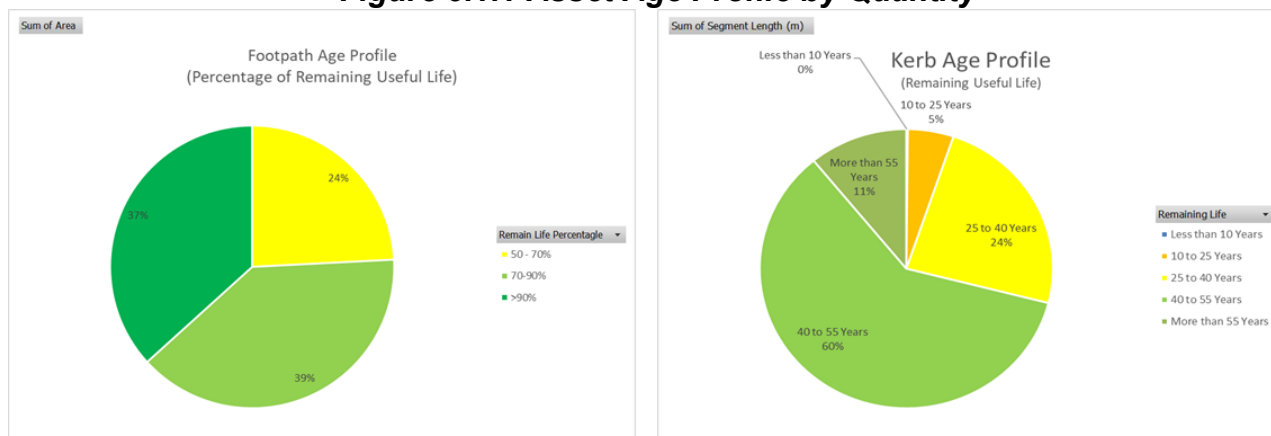
Roads, Footpaths, Kerb/Watertable and Carparks across the District Council of Grant area.

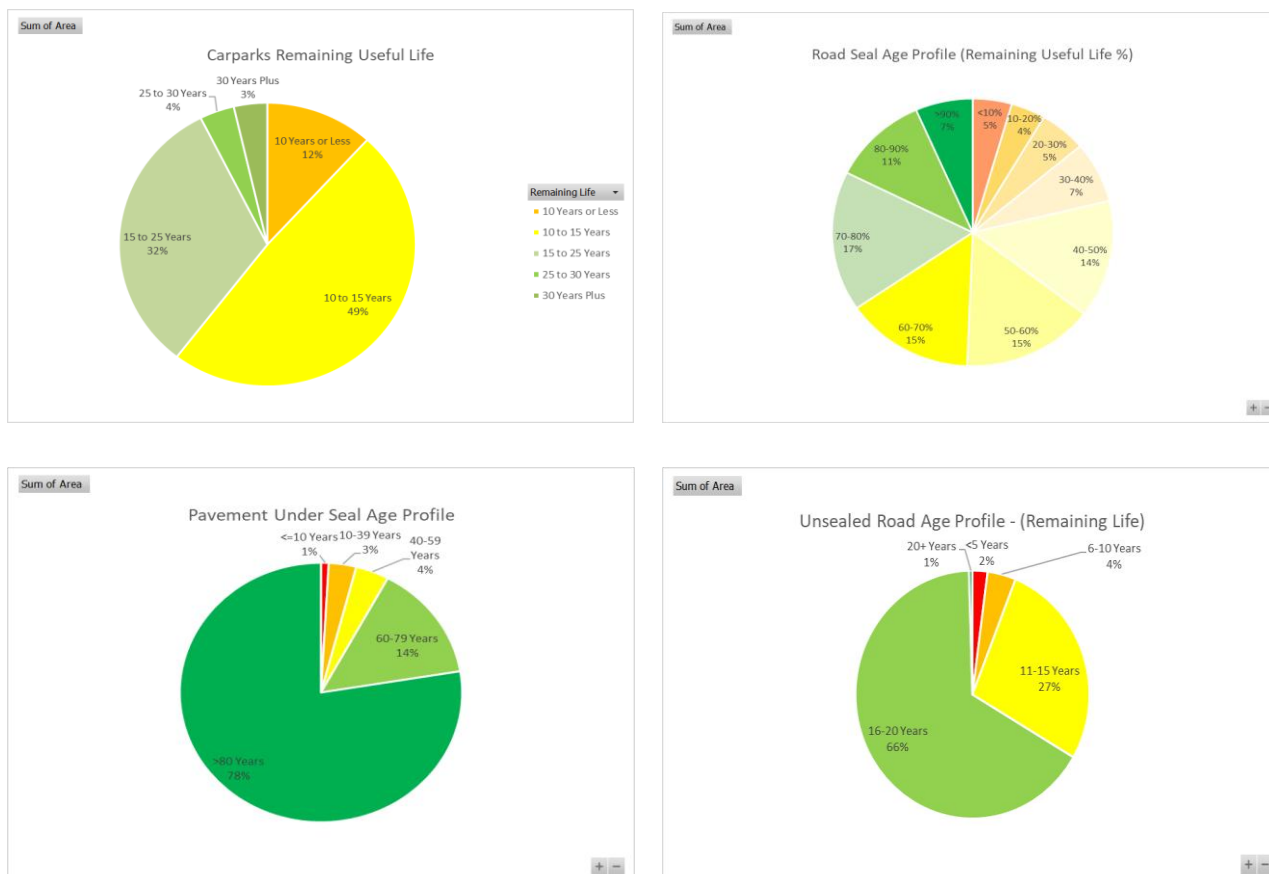
The age profile of the assets included in this AM Plan are shown in Figure 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Sealed Roads	566 km	\$94,821,705
Unsealed Road	740 km	\$31,784,870
Footpaths	19.9 km	\$2,412,639
Kerb / Watertable	45.7 km	\$4,962,660
Carparks	83,725 m3	\$2,098,686
TOTAL		\$136,080,561

Figure 5.1.1 Asset Age Profile by Quantity





All figure values are shown in current day dollars.

Current Asset Age Profile shows large quantities of Assets to be replace or renewed in relatively recent times. This data is driven by significant spikes in development and lack of records due to a number of factors but should be consider to be a guide.

These past spikes of investment and development will need to be managed going forward as part of the renewal process, some works being brought forward, some postponed, after careful consideration of Asset Degradation at an individual level and Risk Analysis.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Kromelite Road, Peweena Road, Carpenter Rocks Road	Mentioned roads suffer with major pavement failure whilst seal condition is good condition, going forward, pavement to be monitored for safety and included in annual budget if safety issues pose a significant risk.
Caroline Road, Berkefeld Road and Lake Terrace West	Mentioned roads suffer with surface texture defects and will be included in future budgets renewal program.

Port MacDonnell Kerbing	A number of roads in the Port MacDonnell Township have kerbing suffering with localised defects but remain functional. These will be treated within localised maintenance treatments or included with the budget's renewal program going forward.
Unsealed Roads in Forestry Network and in Coastal Areas	There are a number on unsealed roads in forestry and coastal areas that have been allowed to degrade due to their low traffic and service volumes. Going forward, Council will look to consult with local Forestry Companies and land holders to negotiate appropriate maintenance practices as dictated by their utilisation for these areas.

The above service deficiencies were identified from Transport Asset Condition Rating Data.

5.1.3 Asset condition

Condition is continually monitored using “casual” surveillance by Council staff, with a more extensive condition assessment carried out approximately every five years (generally in line with asset revaluation). A review of assets with poor ratings and those that may need renewal is undertaken by staff annually as part of the preparation of the annual budget process and capital renewal/upgrade program.

Condition is measured using a 1 – 5 grading system⁴ as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 5.1.3: Condition Grading System

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

⁴ IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

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

Figure 5.1.3: Asset Condition Profile



The Asset Condition Profile shows that Council's Asset base is in a very good position, providing a quite high level of service and low risk level. This is reflective of high quality of materials in the area, stable limestone base of the area, the level of skill in District Council of Grant's workforce and the careful management of Council's Assets.

Sealed Road Pavement Condition Profile highlights the effect of high quality limestone and crushed rock used in the construction of Council's Assets, helping sustain levels of service, however may indicate that Council's current Useful Lives may need further review in the future and be extended.

Condition Rating of the Asset Base was completed by HDS in June 2024, with final submission and sign off by Council's Auditors and the Audit Committee in August 2024.

All figure values are shown in current day dollars.

5.2 Operations and Maintenance Plan

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

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

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget \$
2023-2024	\$2,579,222
2024-2025	\$2,616,988
2025-2026	\$2,640,009

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

Reactive maintenance is carried out in accordance with response levels of service detailed in Appendix C.

Asset hierarchy

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

The service hierarchy is shown in Table 5.2.2.

Table 5.2.2: Asset Service Hierarchy

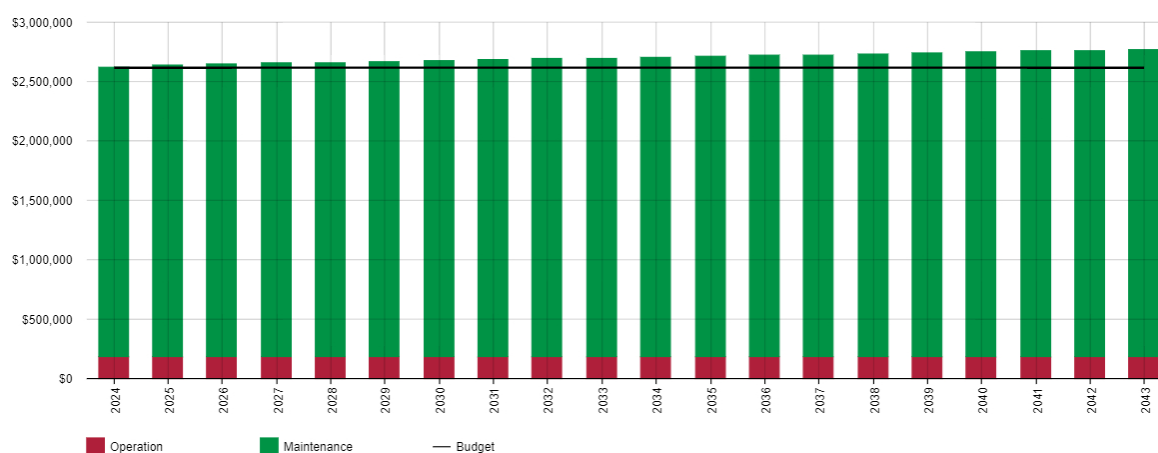
Service Hierarchy	Service Level Objective
Local	• A minor street whose primary function is to provide local residential property access in urban areas; • Caters for shared traffic, pedestrian and recreation use of the road pavement with pedestrian priority; • Vehicle speeds do not exceed 50 km p/hr; • Does not provide for any through traffic and has traffic volumes below 200 AADT on sealed roads and less than 50 AADT on unsealed roads.
Minor	• A road providing local access in urban areas and connecting major roads in rural areas; • Links to the major network, or collects traffic from local roads; • Vehicle speeds are typically 50 km p/hr and 80 km p/hr respectively; • Pedestrian and bicycle movements are facilitated; • Typically serves no external through traffic function and caters for between 200 and 1,000 AADT on sealed roads and between 50 and 200 AADT on unsealed roads.
Major	• A strategic road connecting major urban / rural areas; • Links to the arterial network, or collects traffic from minor roads; • Vehicle speeds are typically in excess of 80km p/hr; • Normal requirement to provide principal access to adjacent property and has consistent traffic volumes $\geq 1,000$ AADT on sealed roads and ≥ 200 AADT on unsealed roads (AADT = Average Annual Daily Traffic count)

Development of a hierarchy framework for bicycle paths, bridges, carparks, footpaths, kerbs or safety barriers is not considered necessary at this stage.

Summary of forecast operations and maintenance costs

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

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

Driven by the slow acquisition of new Assets both constructed and acquired through the development process at no construction cost to Council, Council will need to budget for the operation and maintenance of these Assets to ensure they maintain the existing Levels of Risk and Levels of Service as agreed by Council.

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

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed on 20 May 2024.⁵

⁵ Review of Useful Life of Assets adopted and signed of by HDS Australia

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Road Seal	Spray Sealed Bitumen – 25 Years Asphalt – 35 Years
Pavements	Under Sealed Roads – 100 Years Unsealed Pavement – 25 Years
Formation	Under All Roads – 400 Years
Kerb	All – 80 Years
Footpath	Asphalt – 30 Years Brick Paving – 50 Years Gravel / Crusher Dust – 15 Years Concrete – 50 Years Bituminous Seal – 20 Years
Footpath Pavement	All – 100 Years

The estimates for renewals in this AM Plan were based on the an alternate Method calculated based on area, useful life and renewal value.

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).⁶

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.⁷

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

⁶ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

⁷ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

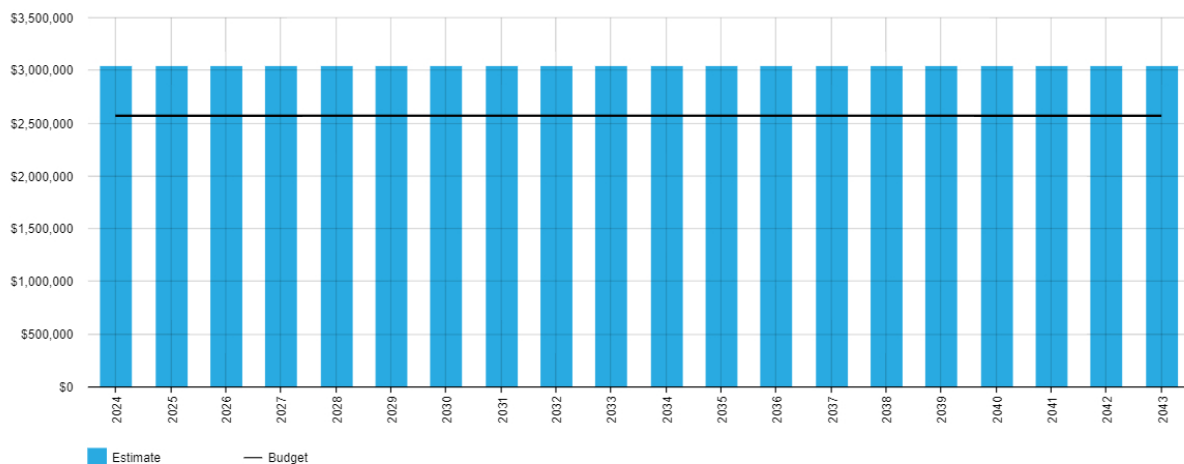
Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Safety	35%
Hierarchy	25%
Capacity	20%
Social Impact	20%
Total	100%

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

Council's Asset 10 Year Asset Renewal Funding Ratio sits at 85%, the 10 Year Financial Ratio sits at 91% with indicative target range of 90-110%. The Renewal Forecast is calculated based on current useful lives, unit rates and Asset quantity in the 2024 Transport Asset Condition Rating and Revaluation, post development of the current budget. This does not represent a threat to increased risk and loss of level of service in the short term as shown by Asset Condition Profile however if the current levels of risk and levels of service are to be maintained in the medium and long term, additional funding will be required.

5.5 Acquisition Plan

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 the District Council of Grant.

5.5.1 Selection criteria

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

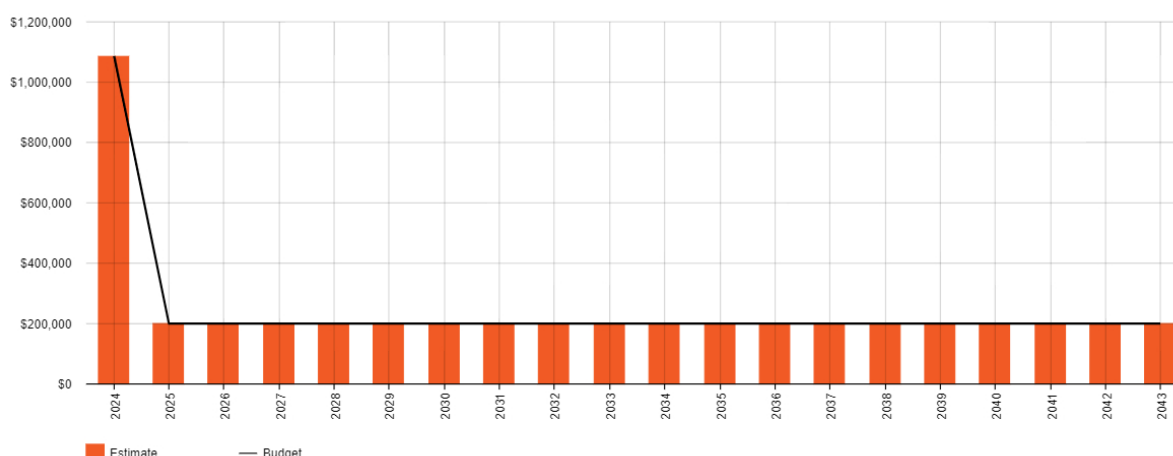
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Safety	35%
Projected Hierarchy Status	25%
Economic Benefit to the Community	15%
Capacity Impact	15%
Social Impact	10%
Total	100%

Summary of future asset acquisition costs

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

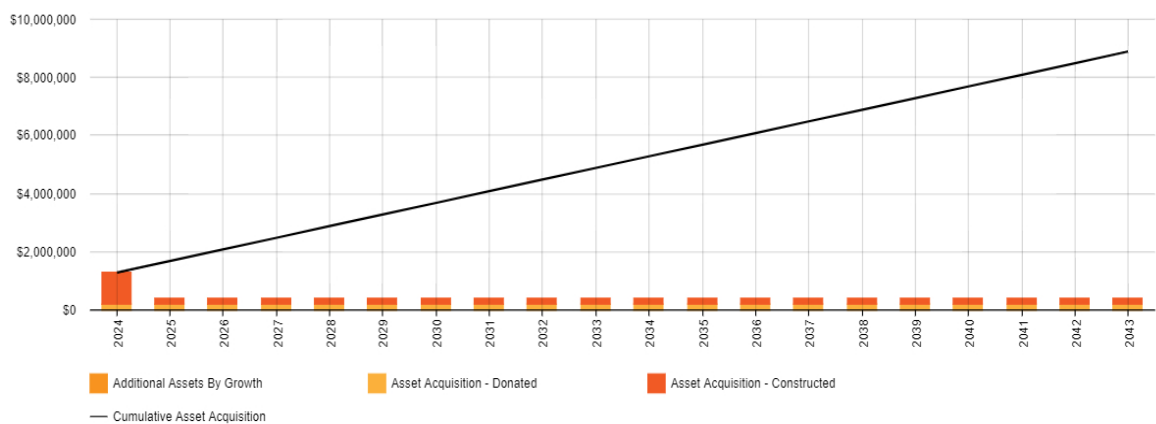
Figure 5.5.1: Acquisition (Constructed) Summary



All figure values are shown in current day dollars.

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

Figure 5.5.2: Acquisition Summary



All figure values are shown in current dollars.

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

2024 New Capital projects have been included in the Asset Management Plan however, no further new capital projects have been included with exception of a PC sum for minor upgrades, similar to prior years. Much of Council’s New and Upgrade programs are tied to external grant funding which cannot be predicted going forward and forward planning should be focused on the renewal program to maintain current levels of risk and levels of service.

5.6 Disposal Plan

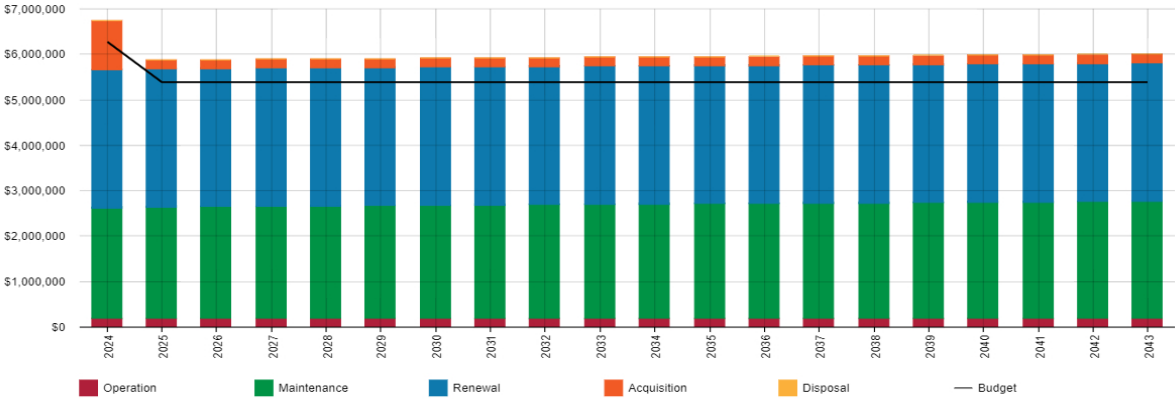
Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. No Transport Assets are planned for disposal at this time as part of the Asset Management Plans timeline. This will be reviewed as part of the next iteration of the Asset Management Plan in the event that this changes.

5.7 Summary of asset forecast costs

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

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

Figure 5.7.1: Lifecycle Summary



All figure values are shown in current day dollars.

Council's Asset Renewal Ratio currently sits outside the recommended 90-110% at 84.59%. This is based on the current financial years figures and calculated renewal requirements based on the recently completed revaluation. Prior budgets had seen our renewal ratio higher and in alignment with previous Asset Management Plans, however the valuation reflects the recent economic trends and increased cost of renewal.

At face value, this would be representative of a decline in levels of service and increased levels of risk, looking at this in conjunction with Asset Condition Profile, it would suggest that initially in the short term it would only have a minor impact. The 5 Year Indicators (lifecycle planned budget / lifecycle forecast) are sitting at 91.28% and 10 Year Indicator sitting at 90.97%.

Medium and Long term, we would expect to see the reduced Levels of Service and increased Risk Levels. If Council wishes to maintain its current Level of Service and Risk position, it would need to look at a slight increase in budget to arrest the decline.

6.0 RISK MANAGEMENT PLANNING

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

Risk Management is defined in ISO 31000:2018 as: ‘coordinated activities to direct and control with regard to risk’⁸.

An assessment of risks⁹ 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
Port MacDonnell Paver Footpaths	Depressions and trip hazards caused by water ingress or insufficient drainage	Creation of trip hazards
GML/OSM/PBS and Commodity Routes	Impact of Heavier Vehicles	Increase rate of pavement failures

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.

⁸ ISO 31000:2009, p 2

⁹ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 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.

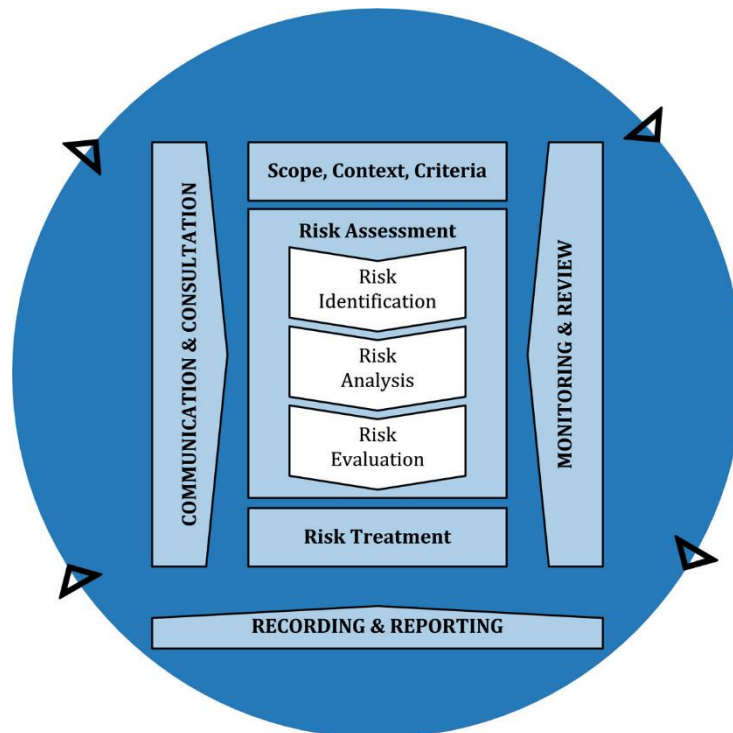


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

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

An assessment of risks¹⁰ 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 Table 6.2. It is essential that these critical risks and costs are reported to management and the District Council of Grant.

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
Footpaths	Pedestrians tripping whilst walking on the footpath network due to trip hazards.	High	Undertake remedial works when notified via Council's CRMS, as per the response times in Council's maintenance levels of service.	Low	Ongoing Operation and Maintenance Budget \$2,431,988 2024-25
Roads	Vehicles being damaged as a result of road defects.	High	Undertake remedial works when notified via Council's CRMS, as per the response times in Council's maintenance levels of service.	Low	Ongoing Operation and Maintenance Budget \$2,431,988 2024-25

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

¹⁰ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

6.3 Infrastructure Resilience Approach

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

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

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

Table 6.3: Resilience Assessment

Threat / Hazard	Assessment Method	Current Resilience Approach
Increased Weights and Lengths of Heavy Vehicle movements on DC Grant Roads	Monitoring of Heavy Vehicle Route Locations and Condition through NHVR processes and ongoing visual condition monitoring	Medium

We do not currently record measurement of our resilience in service delivery. This will be developed and 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:

- Sealing of all Rural Roads as requested by End Users.
- Upgrade of all Unsealed Pathways.
- Upgrade of All Footpaths to Disability Access Standards.

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:

- Possible raising of safety concerns by impacted consumer.

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:

- Nil increase of risk with appropriate maintenance programs and technical levels of service intervention target adherence.

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

7.0 FINANCIAL SUMMARY

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

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

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

- Asset Renewal Funding Ratio (proposed renewal budget for the next 10 years / proposed renewal costs for the next 10 years shown in the AM Plan), and
- Lifecycle Funding Ratio (proposed lifecycle budget for the next 10 years / proposed budget over 10 years shown in the AM Plan).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ 84.59%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 84.59% of the funds required for the optimal renewal of assets.

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

Medium term – 10 year financial planning period

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

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

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$5,702,483 average per year.

The proposed (budget) operations, maintenance and renewal funding is \$5,187,545 on average per year giving a 10 year funding shortfall of \$-514,938 per year. This indicates that 90.97% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

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

¹¹ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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

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

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

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan and/or financial projections in the LTFP.

Council will manage any 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2024-2025 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal
2024	\$1,086,077	\$185,000	\$2,431,988	\$3,039,000
2025	\$200,000	\$185,000	\$2,455,009	\$3,039,000
2026	\$200,000	\$185,000	\$2,462,169	\$3,039,000
2027	\$200,000	\$185,000	\$2,469,329	\$3,039,000
2028	\$200,000	\$185,000	\$2,476,489	\$3,039,000
2029	\$200,000	\$185,000	\$2,483,649	\$3,039,000
2030	\$200,000	\$185,000	\$2,490,809	\$3,039,000
2031	\$200,000	\$185,000	\$2,497,969	\$3,039,000
2032	\$200,000	\$185,000	\$2,505,129	\$3,039,000
2033	\$200,000	\$185,000	\$2,512,289	\$3,039,000
2034	\$200,000	\$185,000	\$2,519,449	\$3,039,000
2035	\$200,000	\$185,000	\$2,526,609	\$3,039,000
2036	\$200,000	\$185,000	\$2,533,769	\$3,039,000
2037	\$200,000	\$185,000	\$2,540,929	\$3,039,000
2038	\$200,000	\$185,000	\$2,548,089	\$3,039,000
2039	\$200,000	\$185,000	\$2,555,249	\$3,039,000
2040	\$200,000	\$185,000	\$2,562,409	\$3,039,000
2041	\$200,000	\$185,000	\$2,569,569	\$3,039,000
2042	\$200,000	\$185,000	\$2,576,729	\$3,039,000
2043	\$200,000	\$185,000	\$2,583,889	\$3,039,000

7.2 Funding Strategy

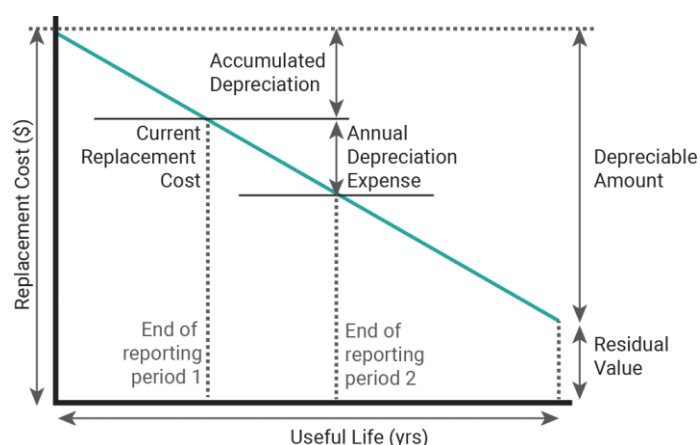
The proposed funding for assets is outlined in the Entity's budget and Long-Term financial plan.

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

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at fair value at cost to replace service capacity, etc:



Replacement Cost (Gross)	\$136,080,561
Depreciable Amount	\$103,132,149
Current Replacement Cost ¹²	\$105,491,884
Depreciation	\$ 2,948,799

7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added to service.

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.

¹² Also reported as Written Down Value, Carrying or Net Book Value.

Key assumptions made in this AM Plan are:

- Upgraded asset forecasts are in “todays” dollars, CPI is added in the maintenance and renewal forecasts .
- Staffing needs are resourced adequately.
- No significant changes in legislation.

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 scale¹³ in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
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 $\pm 10\%$
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 $\pm 25\%$
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 $\pm 40\%$
E. Very Low	None or very little data held.

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

¹³ IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

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

Data	Confidence Assessment	Comment
Demand drivers	B	Drivers were determined during workshops held with key staff during development of previous AM Plan.
Growth projections	C	Projections based on ABS Data.
Acquisition forecast	C	Projections based on Historic Data
Operation forecast	B	Expenditure has been taken directly from Councils financial system.
Maintenance forecast	B	Expenditure has been taken directly from Councils financial system.
Renewal forecast	A	Supplied by external HDS and signed off by Audit Committee
- Asset values		Developed over last decade by DCG Staff, audited and signed off by multiple Engineering firms and signed off by Audit Committee
- Asset useful lives		Supplied by external HDS and signed off by Audit Committee
- Condition modelling		No planned disposals
Disposal forecast	A	

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

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Data and Information Sources

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is the 2024 Transport Asset Valuation Data.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is the 2024 Transport Asset Condition Rating Data.

8.2 Improvement Plan

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

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Develop risk management plan.	MOD/DWI	N/A	Framework Completed
2	Undertake a complete condition assessment of Council's unsealed road network and update condition information in the Asset Register.	DWI /AMO	N/A	Completed
3	Undertake a complete condition assessment of Council's sealed road network and update condition information in the Asset Register.	DWI /AMO	N/A	Completed
4	Test the current levels of service, to measure if these are achievable within the context of Council's current human and financial resources.	DWI	Facilitated in budget ongoing	Ongoing
5	Develop a program for undertaking regular traffic counts and with data integrated and updated in Council's road asset register.	DWI	Facilitated in budget ongoing	Ongoing

6	Document Council's decision-making framework & criteria for capital works prioritisation.	DWI	N/A	Completed
7	Link the Transport AMP to Council's Budgeting process/LTFP, so that impacts of funding levels can be addressed prior to funding allocation	DCS	Facilitated in budget ongoing	Ongoing
8	Undertake an asset inventory and Level 2 condition inspection of Council's bridges.	DWI	N/A	Completed
9	Undertake revaluation of all sealed and unsealed roads as at 30 th June 2016.	DCS/AMO	N/A	Completed
10	Develop improved hierarchy for footpaths.	DWI /AMO	N/A	Completed
11	Further develop prediction modelling data using new condition data and valuation figures and include in future revision of plan.	DWI /AMO	Facilitated in operation budget ongoing	Ongoing
12	Consider impact of regional transport strategies on future revisions of plan.	DWI /CEO	Facilitated in budget ongoing	Ongoing
13	Develop a suite of engineering standards for maintenance, renewal, upgrade and new assets.	DWI	N/A	Completed
14	Investigate options to allow for differentiation of maintenance expenditure as planned and un-planned.	DCS/ DWI	N/A	Completed
14	Review Bicycle Plan.	DWI /AMO	N/A	Completed
15	Review kerb and footpath data to ensure accuracy for future revisions of AM Plan.	DWI/AMO	Facilitated in budget ongoing	Ongoing
16	Develop Disability Discrimination Act action plan.	DWI/MDS	Facilitated in budget ongoing	Completed
Current and Outstanding Actions				
17	Develop a system for performance tracking maintenance levels of service.	DWI /AMO	Facilitated in budget ongoing	October 2025

18	Truthing and Cleansing of Asset Data set	DWI/AMO	Facilitated in budget ongoing	October 2026
----	--	---------	-------------------------------	--------------

8.3 Monitoring and Review Procedures

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

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

8.4 Performance Measures

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

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

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM
- IPWEA, 2024 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/iifmm
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/pn12-1>
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6>
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8>
- ISO, 2024, ISO 55000:2024 Asset Management – Vocabulary, overview, and principles
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- District Council of Grant Strategic Plan 2024 – 2034
- Annual Business Plan and Budget

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

2024 Acquisition figure based on current budget, future figure based on PC sum for New / Upgrade Assets based on previous budget inclusion but has not had any Grant Funding applied due to inability to predict funding success or opportunities going forward.

A.2 – Acquisition Project Summary

Upgrade of section Wandilo Road from Unsealed to Sealed
Upgrade of section Barrows Road from Unsealed to Sealed
Upgrade of section of Hollis Road from Unsealed to Sealed
Upgrade of section of Rabbitters Road from Unsealed to Sealed
Upgrade of section of Woodlands Road from Unsealed to Sealed
Vorwork Road Caroline Road Intersection Realignment
Kerb and Water table for section of Kingsley Road

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2024	\$1,086,077	\$200,000	\$0
2025	\$200,000	\$200,000	\$0
2026	\$200,000	\$200,000	\$0
2027	\$200,000	\$200,000	\$0
2028	\$200,000	\$200,000	\$0
2029	\$200,000	\$200,000	\$0
2030	\$200,000	\$200,000	\$0
2031	\$200,000	\$200,000	\$0
2032	\$200,000	\$200,000	\$0
2033	\$200,000	\$200,000	\$0
2034	\$200,000	\$200,000	\$0
2035	\$200,000	\$200,000	\$0
2036	\$200,000	\$200,000	\$0
2037	\$200,000	\$200,000	\$0
2038	\$200,000	\$200,000	\$0
2039	\$200,000	\$200,000	\$0
2040	\$200,000	\$200,000	\$0
2041	\$200,000	\$200,000	\$0
2042	\$200,000	\$200,000	\$0
2043	\$200,000	\$200,000	\$0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operation Forecast is based on the assumption of the continuation of funding as per the existing budget. Operation Figure made up of Asset Management Budget and staff overhead for planning.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2024	\$185,000	\$0	\$185,000
2025	\$185,000	\$0	\$185,000
2026	\$185,000	\$0	\$185,000
2027	\$185,000	\$0	\$185,000
2028	\$185,000	\$0	\$185,000
2029	\$185,000	\$0	\$185,000
2030	\$185,000	\$0	\$185,000
2031	\$185,000	\$0	\$185,000
2032	\$185,000	\$0	\$185,000
2033	\$185,000	\$0	\$185,000
2034	\$185,000	\$0	\$185,000
2035	\$185,000	\$0	\$185,000
2036	\$185,000	\$0	\$185,000
2037	\$185,000	\$0	\$185,000
2038	\$185,000	\$0	\$185,000
2039	\$185,000	\$0	\$185,000
2040	\$185,000	\$0	\$185,000
2041	\$185,000	\$0	\$185,000
2042	\$185,000	\$0	\$185,000
2043	\$185,000	\$0	\$185,000

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Calculations are based on current budget figures, planned capital renewal projects and existing costs to maintain the asset base calculated out to maintain the forecast new assets.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2024	\$2,431,988	\$23,021	\$2,431,988
2025	\$2,431,988	\$7,160	\$2,455,009
2026	\$2,431,988	\$7,160	\$2,462,169
2027	\$2,431,988	\$7,160	\$2,469,329
2028	\$2,431,988	\$7,160	\$2,476,489
2029	\$2,431,988	\$7,160	\$2,483,649
2030	\$2,431,988	\$7,160	\$2,490,809
2031	\$2,431,988	\$7,160	\$2,497,969
2032	\$2,431,988	\$7,160	\$2,505,129
2033	\$2,431,988	\$7,160	\$2,512,289
2034	\$2,431,988	\$7,160	\$2,519,449
2035	\$2,431,988	\$7,160	\$2,526,609
2036	\$2,431,988	\$7,160	\$2,533,769
2037	\$2,431,988	\$7,160	\$2,540,929
2038	\$2,431,988	\$7,160	\$2,548,089
2039	\$2,431,988	\$7,160	\$2,555,249
2040	\$2,431,988	\$7,160	\$2,562,409
2041	\$2,431,988	\$7,160	\$2,569,569
2042	\$2,431,988	\$7,160	\$2,576,729
2043	\$2,431,988	\$7,160	\$2,583,889

C.3 – Maintenance Response Levels

Activity	Intervention Level	Response Times				
		Hierarchy	Inspection	Make Safe	Completion	Perf Target
Unsealed Roads						
Pothole Maintenance	Pothole with depth of between 50mm - 100mm and area < 10m ² .	Major	4 days	4 days	4 days	70%
		Minor	7 days	7 days	7 days	70%
		Local	14 days	14 days	14 days	70%
	Pothole > 100mm depth.	Major	3 days	3 days	3 days	70%
		Minor	5 days	5 days	5 days	70%
		Local	10 days	10 days	10 days	70%
Repair of General Pavement Defects on Unsealed Roads	Pavement defects or scouring or corrugations >75mm in height displacement and for a length < 20m.	Major	4 days	4 days	4 days	70%
		Minor	7 days	7 days	7 days	70%
		Local	14 days	14 days	14 days	70%
Management of Loose Material on Unsealed Roads	Loose material >100mm depth at any location on the pavement and <20m ² .	Major	4 days	4 days	4 days	70%
		Minor	7 days	7 days	7 days	70%
		Local	14 days	14 days	14 days	70%
Sealed Roads						
Pothole Maintenance	Pothole with depth of between 50mm - 100mm and area < 10m ² .	Major	2 days	2 days	2 days	70%
		Minor	3 days	3 days	3 days	70%
		Local	4 days	4 days	4 days	70%
	Pothole > 100mm depth.	Major	1 days	1 days	1 days	70%
		Minor	2 days	2 days	2 days	70%
		Local	3 days	3 days	3 days	70%
Pavement Texture Maintenance	Longitudinal cracking < 20m.	Major	Monitor	Monitor	Reseal Program	70%
		Minor	Monitor	Monitor	Reseal Program	70%
		Local	Monitor	Monitor	Reseal Program	70%
	Flushing between 5m ² and 50m ² .	Major	Monitor	Monitor	Reseal Program	70%
		Minor	Monitor	Monitor	Reseal Program	70%
		Local	Monitor	Monitor	Reseal Program	70%

	Stripping between 5m ² and 50m ² .	Major	Monitor	Monitor	Reseal Program	70%
		Minor	Monitor	Monitor	Reseal Program	70%
		Local	Monitor	Monitor	Reseal Program	70%
Pavement Defects	Pavement failures, with height displacement > 75mm and affecting less than 100m ² of road area.	Major	10 days	10 days	10 days	70%
		Minor	20 days	20 days	20 days	70%
		Local	30 days	30 days	30 days	70%
Heavy Patching	Pavement failures, with height displacement > 75mm and affecting an area between 100m ² and 500m ² .	Major	20 days	20 days	20 days	70%
		Minor	40 days	40 days	40 days	70%
		Local	60 days	60 days	60 days	70%
Shoving / Delamination Maintenance	Any shoving with a height displacement of 75mm as measured. under a 1.2m straight edge, or delamination defect with a diameter > 200mm	Major	10 days	10 days	10 days	70%
		Minor	20 days	20 days	20 days	70%
		Local	30 days	30 days	30 days	70%
Street Sweeping, Includes Trafficable Area of Pavements, Traffic Lanes & Sealed Shoulders.	Accumulation of aggregate, soil or debris. Any individual area where the material is hazardous to vehicles, cyclists or pedestrians.	Major	5 days	5 days	5 days	70%
		Minor	10 days	10 days	10 days	70%
		Local	15 days	15 days	15 days	70%
Kerbs						
Kerb Repairs	Replacement of between 6m and 50m of kerb and watertable which holds water extending > 1m into roadway.	Major	30 days	30 days	30 days	70%
		Minor	30 days	30 days	30 days	70%
		Local	60 days	60 days	60 days	70%
	Replacement of < 50m of kerb and watertable where rotation,	Major	30 days	30 days	30 days	70%
		Minor	30 days	30 days	30 days	70%

	vertical or horizontal displacement > 100mm.	Local	60 days	60 days	60 days	70%
Footpaths						
Grinding	Grinding of concrete footpath lip when height displacement is between 15mm and 40mm.	Major	30 days	30 days	30 days	70%
		Minor	30 days	30 days	30 days	70%
		Local	60 days	60 days	60 days	70%
Concrete Replacement	Replacement of concrete bay when cracks evident are > 10mm in width or bay is broken / damaged and height displacement is > 20mm.	Major	30 days	30 days	30 days	70%
		Minor	30 days	30 days	30 days	70%
		Local	60 days	60 days	60 days	70%
Footpath Other Repairs	Replacement of bitumen / paved footpath area < 100m ² where height displacement under straight edge > 40mm.	Major	30 days	30 days	30 days	70%
		Minor	30 days	30 days	30 days	70%
		Local	60 days	60 days	60 days	70%

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Renewal Forecast was developed calculated on asset base multiplied by replacement cost then divided by useful life. This series of calculation per asset type and built standard was then combined to give the Renewal Forecast based on existing unit rates. Variance in this may be driven by various factors including but not limited to intervention levels, changes in construction standards, new technology and innovation, material quality and weather conditions.

D.2 – Renewal Project Summary

Current Renewal Project Summary can be found in current budget on Council's [website](#)

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2024	\$3,039,000	\$2,570,557
2025	\$3,039,000	\$2,570,557
2026	\$3,039,000	\$2,570,557
2027	\$3,039,000	\$2,570,557
2028	\$3,039,000	\$2,570,557
2029	\$3,039,000	\$2,570,557
2030	\$3,039,000	\$2,570,557
2031	\$3,039,000	\$2,570,557
2032	\$3,039,000	\$2,570,557
2033	\$3,039,000	\$2,570,557
2034	\$3,039,000	\$2,570,557
2035	\$3,039,000	\$2,570,557
2036	\$3,039,000	\$2,570,557
2037	\$3,039,000	\$2,570,557
2038	\$3,039,000	\$2,570,557
2039	\$3,039,000	\$2,570,557
2040	\$3,039,000	\$2,570,557
2041	\$3,039,000	\$2,570,557
2042	\$3,039,000	\$2,570,557
2043	\$3,039,000	\$2,570,557

Appendix E Disposal Summary

No Asset Disposal is forecast for the Transport Asset Management Class during the period that this plan represents.

Appendix F Budget Summary by Lifecycle Activity

Operation, Maintenance, Renewal figures based on current year figures. 2024 Acquisition figure based on current budget, future figure based on PC sum for New / Upgrade Assets based on previous budget inclusion but has not had any Grant Funding applied due to inability to predict funding success or opportunities going forward.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Total
2024	\$1,086,077	\$185,000	\$2,431,988	\$2,570,557	\$6,273,622
2025	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2026	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2027	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2028	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2029	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2030	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2031	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2032	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2033	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2034	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2035	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2036	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2037	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2038	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2039	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2040	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2041	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2042	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545
2043	\$200,000	\$185,000	\$2,431,988	\$2,570,557	\$5,387,545