TRANSPORT ASSET MANAGEMENT PLAN

BROKEN HILL
CITY COUNCIL

AUSTRALIA'S FIRST
HERITAGE LISTED CITY

QUALITY CONTROL

KEY THEME	1. Our Community		
OBJECTIVE	1.5 Our built environment supports our quality of life		
STRATEGY	1.5.3 Ensure service levels and asset conditions are commensurate with community expectations		
FUNCTION	Transport		
EDRMS NUMBER	13/163	**FILE REFERENCE**	D25/2043
RESPONSIBLE OFFICER	Strategic Asset Management Coordinator		
REVIEW DATE	June 2034		
DATE	**ACTION**	**MINUTE No**	
18 December 2024	Adopted by Council	47728	
Notes	This Plan was compiled by Broken Hill City Council and Morrison Low Copies of this Plan can be viewed on-line at www.brokenhill.nsw.gov.au Images were sourced from Council's image library © Copyright Broken Hill City Council 2024		
Associated Documents	Asset Management Strategy Asset Management Policy Long Term Financial Plan Workforce Management Strategy Community Strategic Plan Delivery Program Operational Plan Community Satisfaction Survey 2023		

TABLE OF CONTENTS

Tables

Figures

EXECUTIVE SUMMARY

PORTFOLIO OVERVIEW

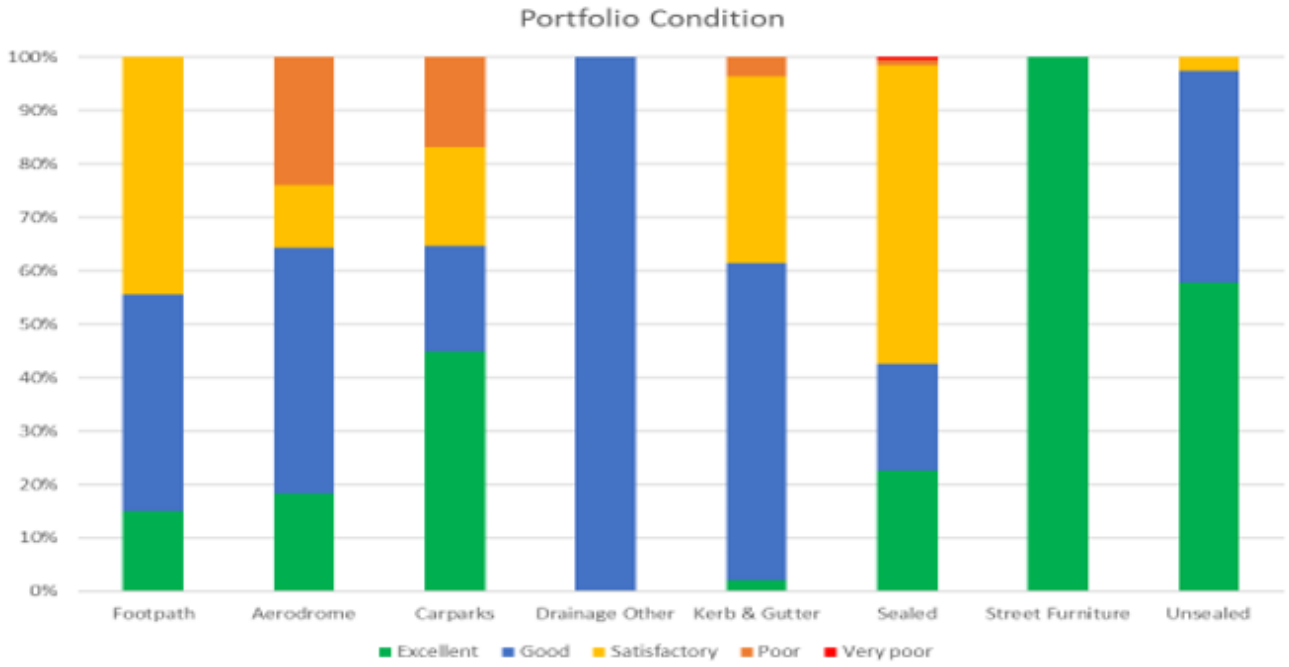
Broken Hill City Council (BHCC) owns and manages a transport network for a regional city of almost 18,000 people in the far west of NSW. The network includes sealed roads, footpaths, kerb and gutter, shared paths, lighting, furniture and the local aerodrome.

This Asset Management Plan (AMP) is a "top-down" plan based on portfolio level reporting and forecasting. As asset management practices and capabilities at BHCC is mature, Council may consider developing sub-AMPs (for example Aerodrome, Lighting).

CURRENT STATE OF THE ASSETS

Council's road assets were inspected and condition assessed in 2018/19. Council has been steadily repairing defects in the road network and anticipates reassessing the road condition in FY2025/26. Overall, the road network is in acceptable condition. The figure below shows the distribution of condition over each asset group.

Figure 1: Condition Profile



FINANCIAL SUMMARY

Council's budgeted expenditure over ten years is shown in the table below.

Table 1: Expenditure Summary

Description	Projected Expenditure $'000s					
	Year 1	Year 2	Year 3	Year 4	Year 4-10	Ten-year
	2024/25	2025/26	2026/27	2027/28	2027-34	Total
Operational Expenditure	$1,542	$1,595	$1,651	$1,709	$11,587	$18,084
Capital Expenditure:						
Renewals	$3,630	$2,740	$2,836	$2,936	$19,902	$32,044
New	$0	$0	$0	$0	$0	$0
Total	**$5,171**	**$4,336**	**$4,488**	**$4,645**	**$31,489**	**$50,128**

STRATEGIC CHALLENGES

Five major strategic challenges identified during the preparation of this AMP are shown in the table below.

Table 2: Strategic Challenges

Focus Areas	Key Challenges	Description
People	Recruitment and retention	Recruitment and retention of suitably qualified and experienced maintenance crews to attend to customer requests and locally identified defects.
Processes	Decision-making processes	Decision-making processes are not documented, and responsibilities not sufficiently clear to staff.
	Long term planning	Maintenance is currently reactive without a long-term maintenance strategy, plan or guidelines.
Demographics	Population	Maintaining an appropriate asset base for the current and expected increasing population.
Finance	Uncertainty of grant funding	Key grant funding programs have been discontinued and there is no certainty as to when new funding programs will start. Approximately half of the required funding comes from grants.

KEY IMPROVEMENT ACTIONS

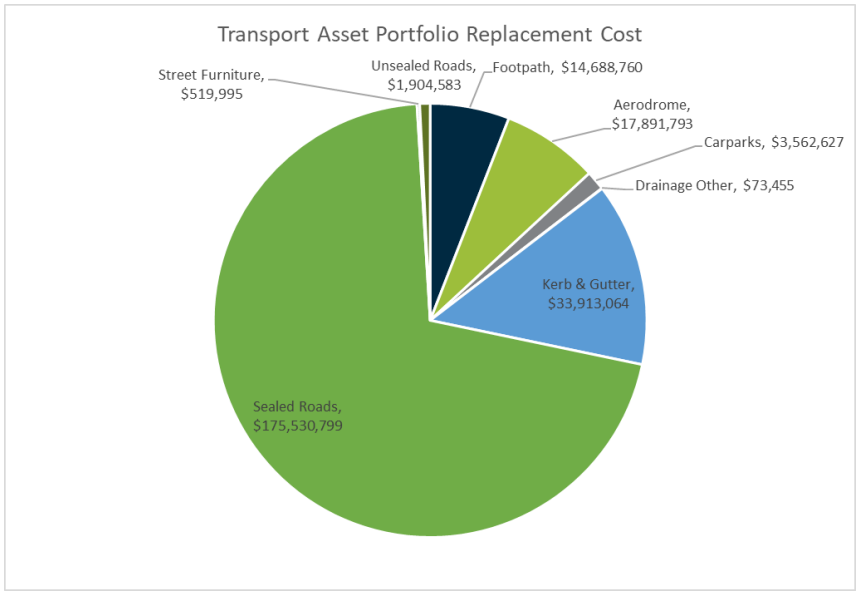
This Asset Management Plan (AMP) includes an improvement plan to address gaps identified by stakeholders during the preparation of the AMP. Four recommended priority improvement actions are shown in the table below:

Table 3: Priority Improvement Actions

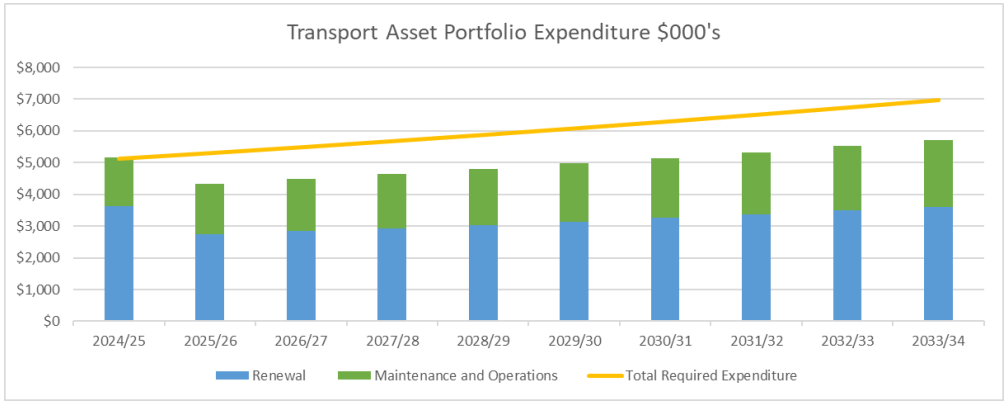
Asset Management Element	Proposed Actions
Asset Knowledge and Data	Undertake a condition assessment in FY2025/26. Refine asset reporting categories to align with proposed suite of sub-asset management plans (for example aerodrome and road and footpath.
Strategic Asset Planning Processes	Develop maintenance strategies to be more proactive and shift expenditure to CAPEX to reduce OPEX and optimise value for money.
Operations and Maintenance Work Practices	Develop maintenance strategies and plans to ensure maintenance is performed within service levels.
Organisational Context	Develop a roles and responsibilities matrix to ensure responsibilities for asset lifecycle activities are known and communicated throughout Council.

DASHBOARD

Figure 2: Transport Asset Portfolio



Infrastructure Ratios	Budget 2024/25	Estimated 2032/33	Funding Gap $ 000's	
Infrastructure renewals ratio	150.7%	110.0%	Yr 1	$1,222
Benchmark 100%			Yr 5 Average	$856
			Yr 10 Average	$575
Infrastructure Backlog Ratio	0.4%	0.1%	Yr 1	$0
Benchmark 2%			Yr 5 Average	$0
			Yr 10 Average	$0
Infrastructure Maintenance Ratio	57.0%	57%	Yr 1	-$1,164
Benchmark 100%			Yr 5 Average	-$1,207
			Yr 10 Average	-$1,320
Total Funding Gap			Yr 1	$57
			Yr 5 Average	-$351
			Yr 10 Average	-$744



1. INTRODUCTION

1.1. PURPOSE OF THE PLAN

The purpose of this Asset Management Plan (AMP) is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 10-year planning period.

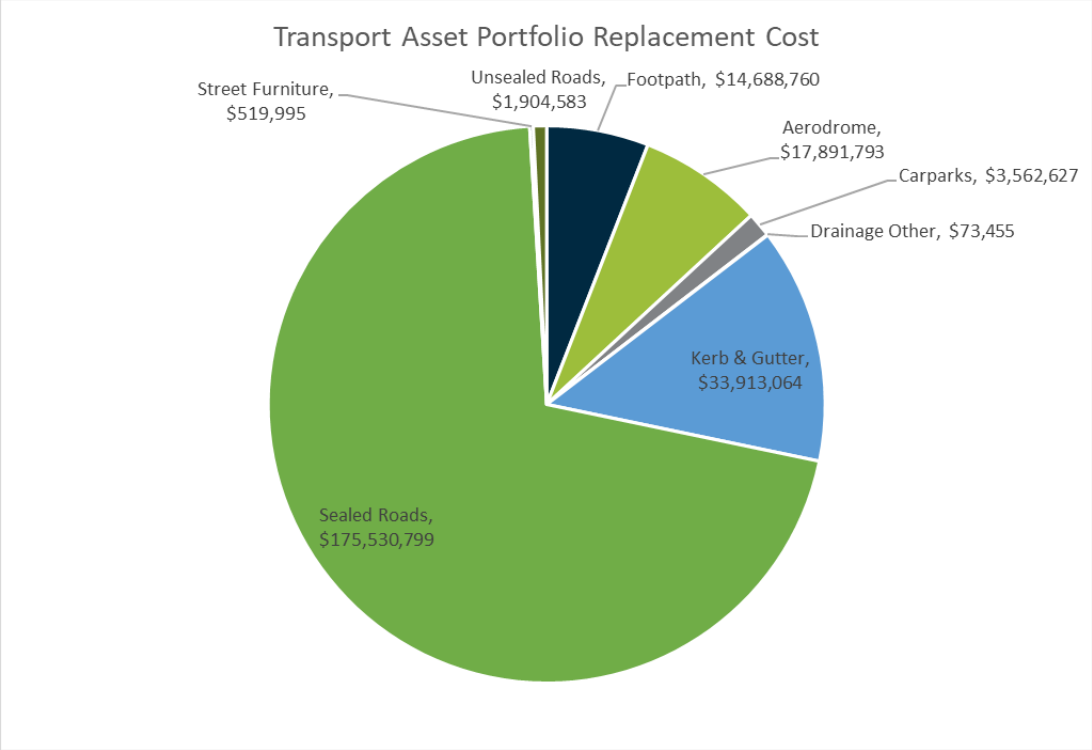
The plan includes the following scope of management:

- Asset inventory, values, and condition.
- Asset-based levels of service.
- Demand and service management.
- Risk management.
- Development of the Long Term Financial Plan (LTFP) for the maintenance and renewal of Transport assets.

The forecasts in this plan are based on the audited 2022/23 financial statements (Note C1-6, and Special Schedule 7), adopted budget 2023/24, and the draft 2024/25 Operational Plan.

1.2. PORTFOLIO OVERVIEW

Figure 3: Transport Asset Portfolio Overview



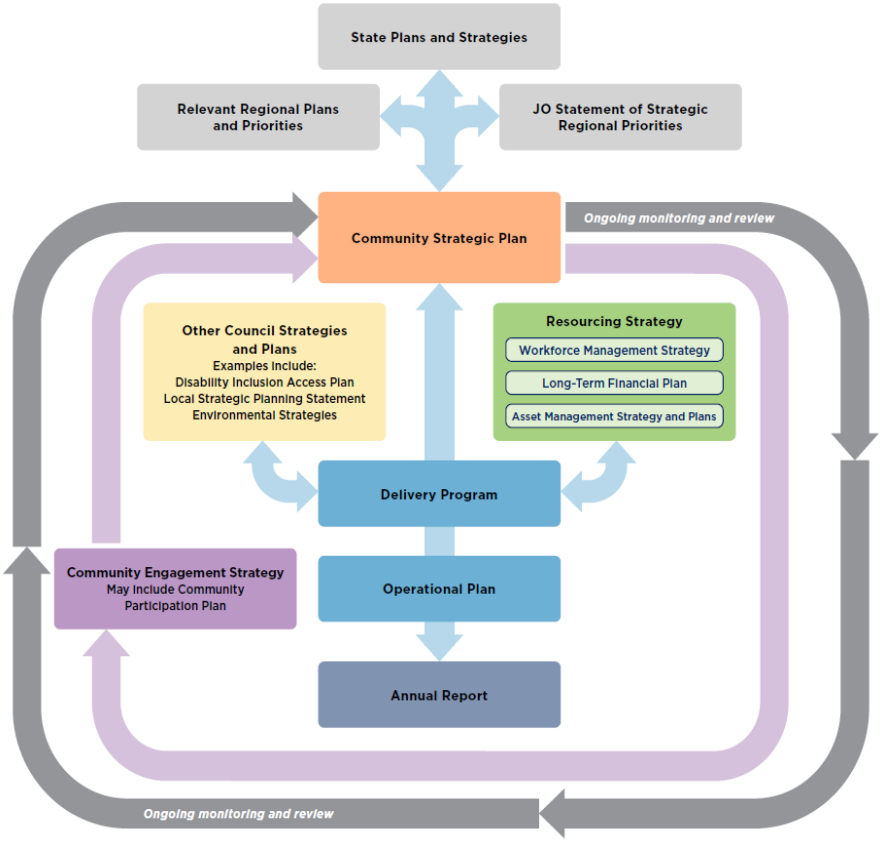
1.3. PLANNING OVERVIEW

Development of Asset Management Plans for Council's infrastructure is a mandatory requirement for NSW councils, as per the *NSW Local Government Act 1993* and its subsequent amendments.

Providing infrastructure is one of the most important roles of Council, as assets support services that deliver on Council's long-term objectives. A formal approach to asset management is essential to ensure that services are provided in the most cost-effective and value-driven manner. Asset management needs to be fully aligned and integrated with the Community Strategic Plan, Long Term Financial Plan and Workforce Management Strategy. This ensures that community needs and expectations are well understood, and that funding requirements and consequences are understood and available.

Council's current planning framework is based on the 'Local Government Integrated Planning and Reporting Framework'.

Figure 4: Integrated Planning and Reporting Framework



The Integrated Planning and Reporting Handbook provides guidance to Councils as to the minimum content, monitoring and review of their asset management plans.

1.3.1. Strategic Focus

Asset management is a 'whole of life' approach that includes planning, purchase, construction, operation, maintenance and renewal/disposal of assets. The objective is to maximise asset service delivery potential and manage related risks and costs over the entire asset life.

The strategic outlook from the Asset Management Strategy (2020) is for:

- Council to continue to improve the level of service provided by its assets and to meet optimal levels of service identified in condition surveys.
- Council to consider strategies to fund the projected asset renewal expenditure over the next ten years.

- Council's continued investment to ensure that data verification, system management and evaluation continues to mature towards a 'core' system level.
- Council endeavours to optimise the life of assets at the most economic cost over time (life cycle approach) including the development of new technologies to support optimisation.
- Reducing the demand for new assets through demand management techniques and consideration of alternative service delivery options

1.3.2. Community Strategic Plan

The role of transport assets achieving related goals in the Community Strategic Plan are shown in the table below.

Table 4: Transport Asset Roles in Community Strategic Plan

CSP Goal	Objective	How this is addressed in the Asset Management Plan
We have a healthy community in a liveable City	1.5.4 Design and deliver pathways, walking trails and other pedestrian movement infrastructure to maximise access, inclusion and mobility.	Upkeep and improvement of all transport assets contributes to a liveable City.
We are a connected and engaged community	4.1.4 Decision-makers provide accountability through planning and reporting frameworks.	Asset Management Plan sets out the expected costs, risks and priorities for service delivery.
	4.2.2 Our leaders seek information, are well informed and aware of emerging issues and new information in order to advocate and respond appropriately.	
It is safe and easy to get around our City	Ensure that infrastructure meets community needs and service levels. Ensure that active transport infrastructure meets community needs and service levels.	Asset Management Plan details the condition and fit-for-purpose of transport infrastructure.
Our reliance on fossil fuels is decreasing	Active transport, walkability, and liveability factors are considered for any new developments.	Asset Management Plan recognises that reducing fossil fuel and carbon use is necessary to limit global warming and slow the effects of climate change.

1.3.3. Strategic Linkages

The following documents have strategic linkages to this Transport Asset Management Plan.

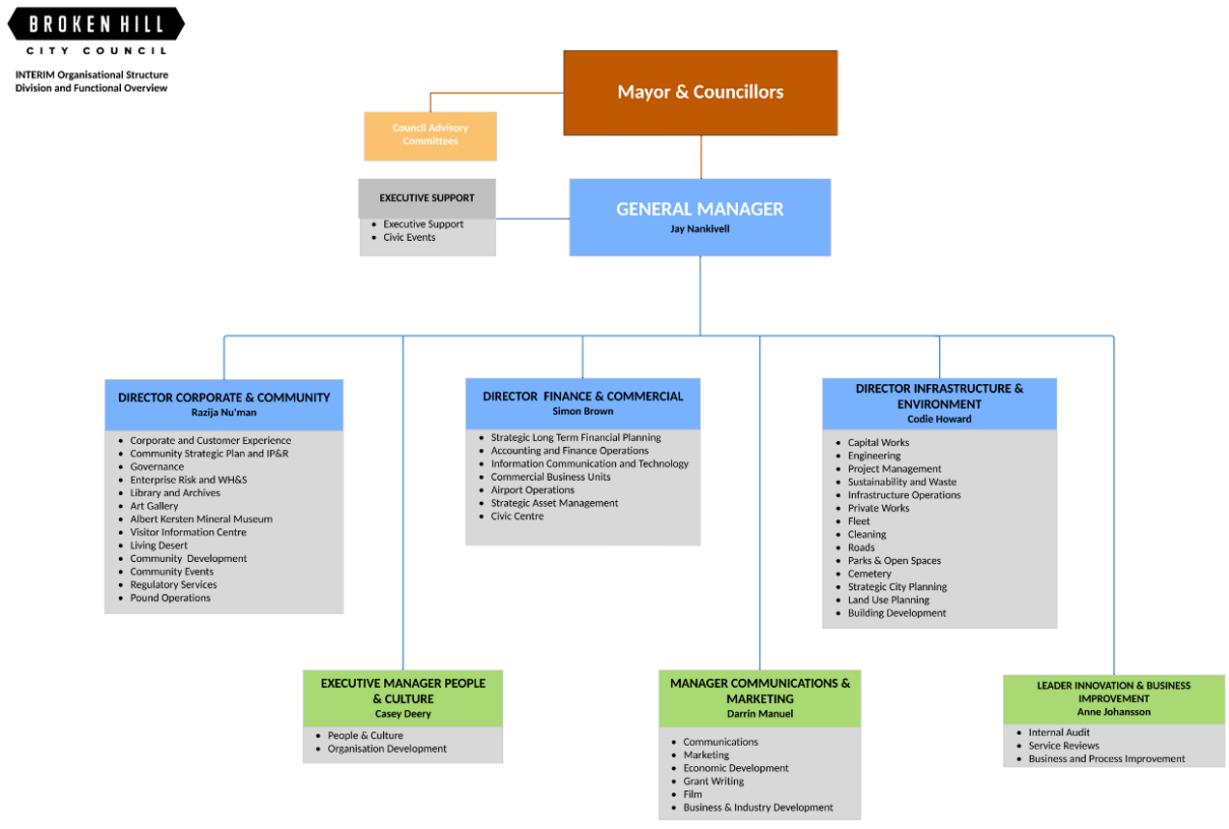
Table 5: Strategic Linkages to Transport Asset Management Plan

Documents	Linkage to Asset Management Plan
Broken Hill Active Transport Plan (Cardno 2019)	Provide a plan to provide improved active transport infrastructure.
Broken Hill Liveability Strategy (2023)	Strategies to improve liveability indicators including connectivity and resilience.
Broken Hill Airport Master Plan	Upgrade the capacity and functionality of Broken Hill's airport.
Far West Regional Transport Plan (in development) (NSW DPE)	Strategies to improve the freight and transport network in the Far West region to connect communities and support tourism.

2. ROLES AND RESPONSIBILITIES

Council's organisation structure as of March 2024 is shown in the figure below. Strategic asset management has recently been moved to the Finance and Commercial directorate and a new team established to develop the asset management framework. Subject matter expertise for transport assets sits within the Infrastructure and Environment directorate. Council should consider developing a roles and responsibilities matrix for transport assets so that responsibilities for all lifecycle activities are assigned and communicated.

Figure 5: Interim Organisation Structure (March 2024)



Council has not formalised its roles and responsibilities. A recommended approach is shown below.

Table 6: Recommended Approach for Roles and Responsibilities

Role	Responsibilities	Functions
Asset Owner (Strategic Assets Team)	This role takes ownership responsibility for the management of assets and is usually responsible for policy and overall asset strategy	• Establish long term policy and strategy • Establish existing demand for assets • Establish future demand for assets (type and standard) • Establish long term community expectation • Implement policy and strategy for existing assets • Establish community asset service level • Ensure integration of asset management into Council's community, delivery and operational plans and resourcing strategy • Maintain and develop asset systems and reporting • Ensure asset accounting is accurate and maintained, and asset valuation • Develop capital works prioritisation • Develop capital works program • Liaison with the organisation as a whole on asset matters
Asset Custodian (Strategic Assets Team)	This role is the technical expert and has responsibility for collecting and maintaining asset data, determining works programs and maintenance strategies etc.	• Asset Condition inspections • Recommendation of asset disposal and renewal 4-year program • Control budgets • Develop asset plans • Asset condition rating • Risk management • Data custodian – Hierarchy, level of detail • Maintenance planning
Asset Delivery – Maintenance CAPEX and Operations **(Projects and Infrastructure Operations Teams)**	These roles are responsible for the day-to-day maintenance, operations and services delivered by assets as well as the delivery of capital works	• Controls asset use, in line with policy • Develop and oversee capital works and maintenance program • Deliver and/or manage capital works • Manage all operations and service delivery functions • Manage service user expectations • Deliver adopted levels of service. • Handover and documentation • Develop capital works prioritisation • Deliver programmed and reactive maintenance, internal/external

3. LEVELS OF SERVICE

3.1. LEVELS OF SERVICE OVERVIEW

There are a variety of ways to describe levels of service (also known as service levels). The concept adopted in this plan is that 'levels of service are output descriptions supported by quantifiable performance measures.

A level of service is a measurable description of what Council delivers (or intends to deliver) in an activity which relates to something that can be controlled. Service levels may relate to:

- The reliability of an asset.
- The quality of an asset.
- Having the right quantity of assets.
- The safety/risk/security of the assets.

The objective of asset management is to enable assets to be managed in the most cost-effective way based on an understanding of customer needs, expectations, preferences and their willingness to pay for any increase in the levels of service.

3.2. CUSTOMER LEVELS OF SERVICE (SATISFACTION)

The levels of service in this plan have been developed with a customer focus and are grouped into core customer value areas that are referred to as 'service level outcomes'. These service level outcomes (sometimes referred to as service criteria) encompass:

- **Condition**
  - Accessibility and/or Availability
  - Quality/Condition
- **Functionality**
  - Reliability/Responsiveness
  - Sustainability
  - Customer Satisfaction
- **Capacity**
  - Affordability
  - Health and Safety

3.2.1. CONDITION

3.2.1.1 Accessibility

To ensure the asset base performs as required, it is essential that the asset, no matter which type of asset, is generally available to the community as required. As a service outcome, Council's customers will require assets that are accessible and can be relied upon to deliver the services that are not only expected but are also required.

3.2.1.2 Quality/Condition

Condition is a measure of an asset's physical condition relative to its condition when first constructed. When rating asset condition, Council uses a scale of 1 - 5, where 1 = new and 5 = totally failed. A copy of a typical condition rating matrix is detailed over page.

Table 7: Asset Condition Rating Matrix

Condition Rating	Condition	Descriptor	Guide	Residual Life as a % of Total Life	Mean Percentage Residual Life
1	Excellent	An asset in excellent overall condition, however, is not new and providing its intended level of service.	Normal maintenance required	>86	95
2	Good	An asset in good overall condition with some possible early stages of slight deterioration evident, minor in nature and causing no serviceability issues. No indicators of any future obsolescence and providing a good level of service.	Normal maintenance plus minor repairs required (to 5% or less of the asset)	65 to 85	80
3	Satisfactory	An asset in fair overall condition with some deterioration evident, which may be slight or minor in nature and causing some serviceability issues. Providing an adequate level of service with no signs of immediate or short-term obsolescence.	Significant maintenance and/or repairs required (to 10 - 20% of the asset)	41 to 64	55
4	Poor	An asset in poor overall condition, moderate to high deterioration evident. Substantial maintenance required to keep the asset serviceable. Will need to be renewed, upgraded or disposed of in near future. Is reflected via inclusion in the ten-year Capital Works Plan.	Significant renewal required (to 20 - 40% of the asset)	10 to 40	35
5	Very Poor	An asset in extremely poor condition or obsolete. The asset no longer provides an adequate level of service and/or immediate remedial action required to keep the asset in service in the near future.	Over 50% of the asset requires renewal	<10	5

Asset quality is also very important. Council should determine the quality of the assets required. Quality will have more to do with the design, build and type of the asset rather than its condition. An asset may be poor in quality yet have a condition which is described as good.

3.2.2. FUNCTION

3.2.2.1 Responsiveness

Council will maintain assets in a diligent manner and be responsive to the needs of the community now and into the future. Whilst this may be difficult in some instances, Council places a high emphasis on customer service and its responsiveness to customer enquiries. Strategies will be implemented to ensure that Council maintains a high level of customer support.

3.2.2.2 Customer Satisfaction

Council will continue to provide services to the community in a manner that is efficient and effective. Council will continue to monitor community satisfaction with its current services and strive to improve community satisfaction where possible.

3.2.2.3 Sustainability

Council will ensure that its assets are maintained in a manner that will ensure the long-term financial sustainability for current and future generations. This will be achieved by ensuring efficient and effective service delivery and ensuring appropriate funds are allocated to maintain and renew infrastructure assets.

3.2.3. CAPACITY

3.2.3.1 Affordability

Council will maintain its infrastructure assets in a cost-effective, affordable manner in accordance with responsible economic and financial management. In order for Council's assets to assist in meeting the strategic goals and in attaining optimum asset expenditure, Council will need to continually review its current operational strategies and adopt new and proven techniques to ensure that assets are maintained in their current condition.

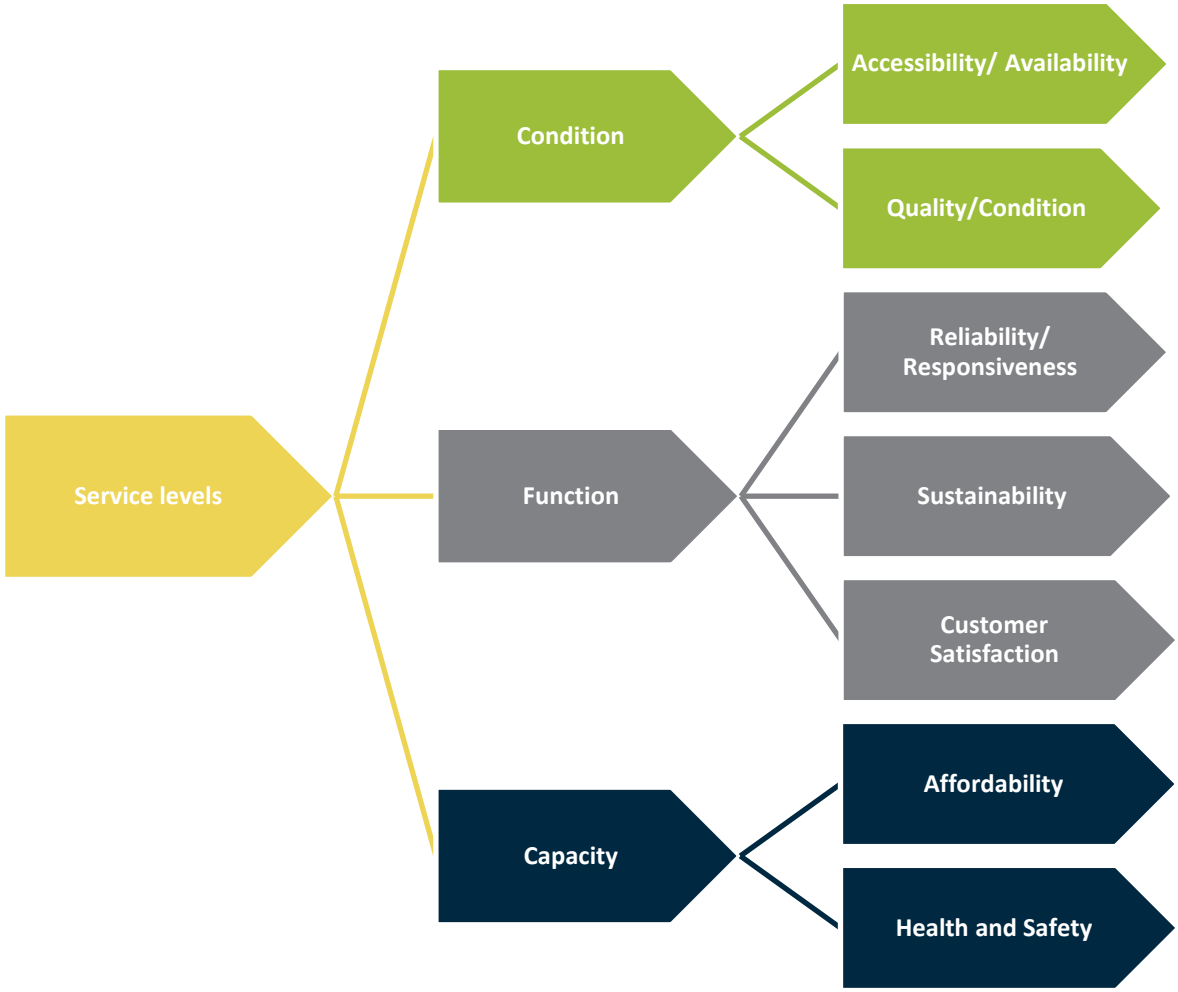
3.2.3.2 Health and Safety

Council will endeavour to identify and mitigate all key health and safety risks created by the provision of services. Examples of level of service based on safety might include the following:

- Services do not cause a hazard to people.
- Water is safe for swimming.

Each of the service level outcomes is related directly to the Council's Community Strategic Plan in the way each asset class helps deliver the services required by the community. These service level outcomes are essential to ensure the asset portfolio is not only maintained to a satisfactory level but also caters for the future demands of the community whilst balancing the potential risks to the community and the Council.

Figure 6: Service Level Framework



3.3. FINANCIAL LEVELS OF SERVICE

The premise of asset management is that asset requirements and asset management strategies should be driven by defined and acceptable service levels and performance standards. This section defines the various factors that are considered relevant in determining the levels of service for Council's assets that have been used to provide the basis for the lifecycle management strategies and works programme identified within this Strategic Asset Management Plan.

3.3.1. Asset Backlog Ratio

This ratio shows what proportion the infrastructure backlog is against the total value of a Council's infrastructure. The benchmark is less than 2%. The ratio is determined by dividing the estimated cost to bring assets to a satisfactory condition by the carrying value of infrastructure, building, other structures and depreciable land improvement assets (averaged over three years).

3.3.2. Asset Consumption Ratio

The average proportion of 'as new' condition remaining for assets. This ratio shows the written down current value of the local government's depreciable assets relative to their 'as new' value. It highlights the aged condition of a local government's stock of physical assets and the potential magnitude of capital outlays required in the future to preserve their service potential. It is also a measure of Council's past commitment to renew the asset class. A consumption ratio of less than 50% would suggest that past renewal funding has been inadequate or that the asset could expect to decay more rapidly.

3.3.3. Asset Sustainability Ratio

Are assets being replaced at the rate they are wearing out? This ratio indicates whether Council is renewing or replacing existing non-financial assets at the same rate that its overall stock of assets is wearing out. It is calculated by measuring capital expenditure on renewal or replacement of assets relative to the rate of depreciation of assets for the same period. Council would need to understand and be measuring renewal expenditure to be able to determine this ratio.

3.3.4. Asset Renewal and Renewals Funding Ratio

Is there sufficient future funding for renewal and replacement of assets? This ratio indicates whether Council is allocating sufficient funds in its Long-Term Financial Plan to adequately fund asset renewals. The benchmark is 100% (averaged over three years).

3.3.5. Asset Maintenance Ratio

This ratio compares actual versus required annual asset maintenance for each asset class. A ratio of above 100% indicates that Council is investing enough funds that year to halt the infrastructure backlog from growing. The benchmark is greater than 100% (averaged over three years).

3.4. SERVICE LEVEL SUMMARY

Table 8: Service Level Summary

Service Level Outcome	Level of Service	Performance Measure Process	Performance Target	Current Performance	Indicator
Quality / Condition	Provide sealed road with smooth ride appropriate to road type and speed limits	Survey of road pavement condition	100% of road pavements in condition 3 or better	98.5% of sealed road in Condition 3 or higher	Not meeting but in accepatable range
	The condition of local sealed roads in your area	Community satisfaction survey	Gap between importance and satisfaction decreases	Gap between importance and satisfaction has decreased	Meeting
Affordability	The services are affordable and managed using the most cost-effective methods for the required level of service	Review of service agreements and benchmark with other councils	Maintenance/Opex budget expenditure +/- 5% of Annual Budget		
Health and Safety	Provide roadways free from hazards	Number of road accidents annual RMS accident reports	The three-year rolling average of total accidents decreases		
Reliability / Responsiveness	Planned works completed in accordance with schedules	Completion of scheduled work	90% completion within scheduled service standard.		
	Be responsive to the needs of the road and transport asset users	Number of customer requests received	85% of requests are completed within Council's service charter		
	Provide well maintained transport assets that are affordable to the community.	Annual works program Planned v's reactive, based on the 3-year plan.	Greater than 50% of maintenance expenditure is undertaken through planned maintenance schedules.		

Service Level Outcome	Level of Service	Performance Measure Process	Performance Target	Current Performance	Indicator
Sustainability	Continues to provide road and transport assets to meet the need of the community	Complete capital work program on-time and on-Budget	Annual Capital works for time and budget +/- 5%		
Health and Safety	Provide footpaths free from hazards	Number of insurance claims received	The three-year rolling average of total claims decreases		
Quality / Condition	Provide sealed footpaths which are smooth and free of defects	Survey of footpath Condition	90% of footpaths in condition 3 or better	100% (asset register) – confidence in this measure currently low	
	The condition of local footpaths in your area	Community satisfaction survey	Gap between importance and satisfaction decreases		Not Meeting
Quality / Condition	Provide kerb and gutter in a good condition and fit for purpose	Survey of kerb and gutter asset condition	90% of kerb and gutter in condition 3 or better	96.5% in condition 3 or better	Meeting
Sustainability	Assets are being renewed in a sustainable manner	Asset renewal ratio (asset renewal expenditure / annual depreciation expense)	OLG benchmark >100%	144.84 %	Exceeding
Affordability	Council maintains its Transport assets	Asset maintenance ratio, measured by (actual maintenance expenditure). Required maintenance expenditure	OLG benchmark 100%	71.34%	Not Meeting
Quality / Condition	Transport Assets are maintained in a satisfactory condition	Backlog ratio (cost to satisfactory / written down value of the assets)	OLG benchmark <2%	4.4% (2022/23)	Not Meeting

3.5. KEY USERS AND STAKEHOLDERS

This asset management plan will be used to inform discussions with, and decisions made by, Council and its stakeholders.

Table 9: Key Stakeholders' Roles in Asset Management Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	• Represent needs of community and stakeholders. • Approve allocation of resources to meet the organisation's objectives in providing services while managing risks. • Ensure the organisation is financially sustainable.
Council staff	• Carry out asset management functions.
The Community	• Aware of service levels and costs. • Participation in consultation process. • Offer feedback on services.
Transport for NSW	• Responsible for management and maintenance for State Highways. • Responsible for funding for Regional Roads. • Provide funding for maintenance of local roads.
State Government	• Funding provided to council through specific Grants or through the Roads and Maritime Services.
Federal Government	• Funding through the Financial Assistance Grants and the Roads to Recovery Program
Telstra	• There is no formal agreement with Telstra for street openings however, under the Roads Act, they are required to give Council notice of works affecting Council's infrastructure. During this period, Council can propose amendments or conditions to the street opening.
Essential Energy	• Street lighting within the City is owned and maintained by Essential Energy. Council pays fees for the provision of local street lighting which includes components for Network Use of System, Energy Consumption and Operational Charge • Council works together with Essential Energy in tree maintenance. • Essential Energy must also consult with Council regarding works to be undertaken on road reserves.
Essential Water	• Essential Water provides notice to Council of any works affecting Council's assets. A formal agreement has been under development (Memorandum of Understanding) and will be largely based on the "Model Agreement for Local Council and Utility/Service Providers for the cohesive management of works within Council Road Reservations".

3.6. LEGISLATIVE FRAMEWORK

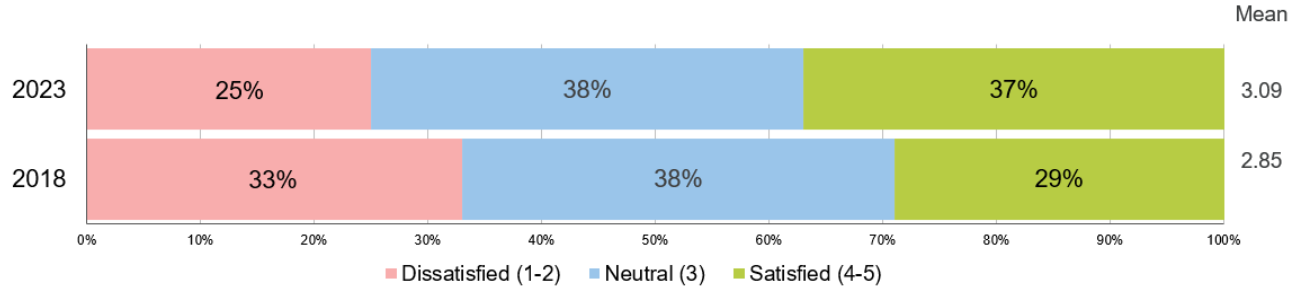
Legislation relevant to this Asset Management Plan is shown below:

- Local Government Act 1993
- Office of Local Government, Integrated Planning and Reporting Framework
- Disability Discrimination Act 1992
- Environmental Planning and Assessment Act 1979
- Plant Protection Act 1989
- Threatened Species Conservation Act 1995
- National Parks and Wildlife Act 1974
- Road Transport (Safety and Traffic Management) Act 1999
- NSW Road Rules 2008
- Crown Lands Act 1989
- Civil Liability Act 2002
- Local Government Amendment (Planning and Reporting) Act 2009
- Roads Act 1993
- Disability inclusion Act 2014
- Work Health and Safety Act 2011
- Environmental Protection Act 1994
- Protection of the Environment Operations Act 1948
- Native Vegetation Act 2003
- Local Government (Highways) Act 1982
- Valuation of Land Act 1916
- Heritage Act 1977
- Government Information (Public Access) NSW 2009

3.7. USER ENGAGEMENT

The Customer Satisfaction Survey, undertaken in 2023, showed a decrease in overall dissatisfaction when compared to the previous survey (2018), as illustrated in the image below.

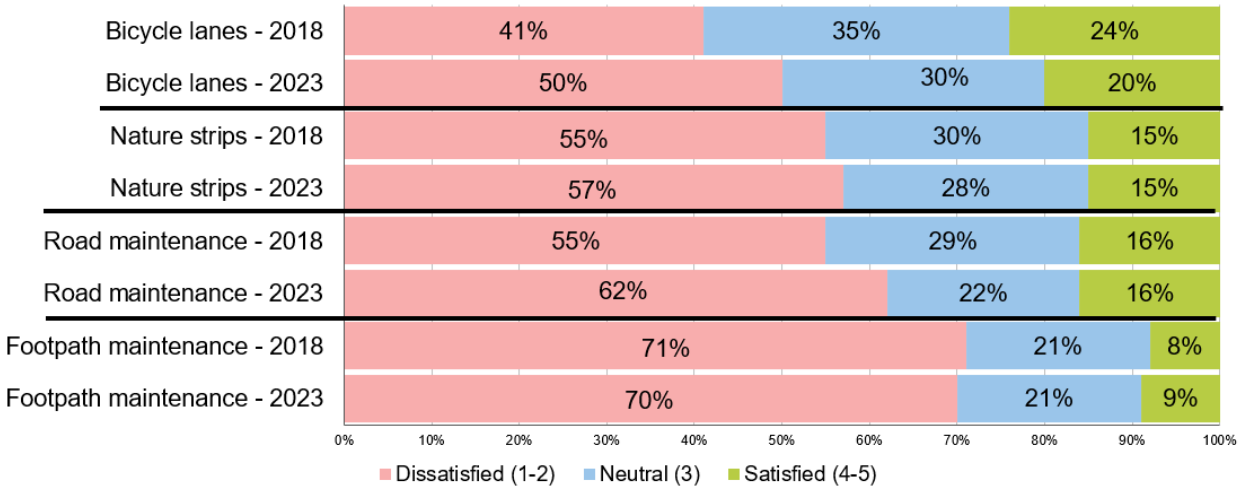
Figure 7: Overall Customer Satisfaction Comparison



Source: BHCC Community Satisfaction Survey 2023

Results of the infrastructure and traffic services are shown below. For further details refer to the 2023 Survey Report. Council should consider these findings when calculating the required maintenance and cost to satisfactory.

Figure 8: Satisfaction results with Infrastructure and Traffic services



4. FUTURE DEMAND

4.1. DEMAND OVERVIEW

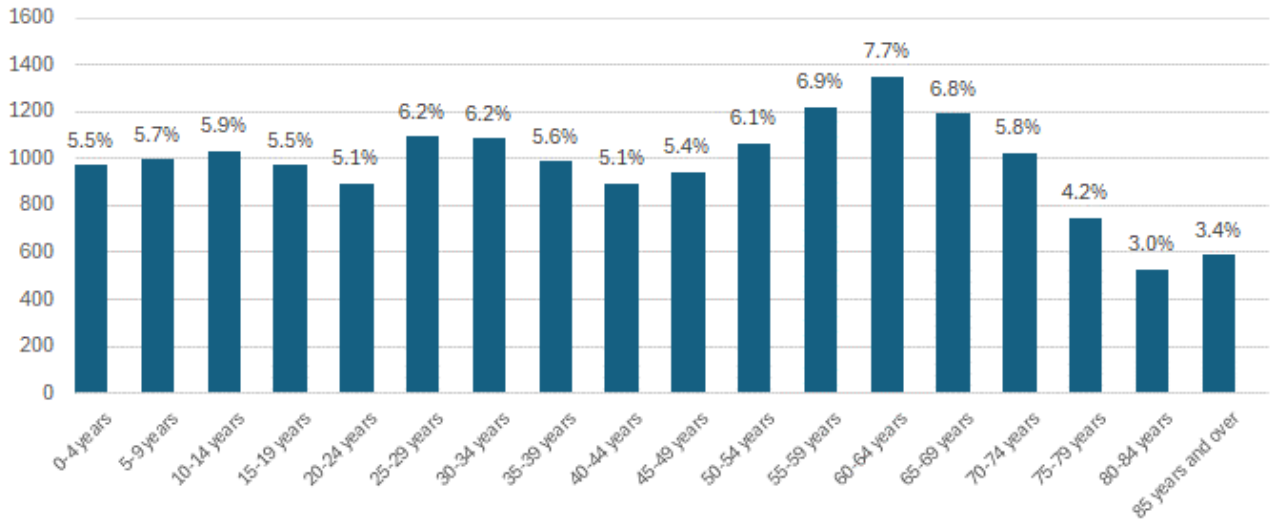
The demand drivers and their impacts on services are shown in the table below: Demand is explored in more detail in the transport related strategies.

Table 10: Demand Drivers

Demand Drivers	Present Position	Projection	Impact on Service
Population Increase	17,588 (2021 ABS Census)	Based on Council's most recent economic and data projections Council is estimating that between 2023 and 2046 the population for Broken Hill to increase by 197 persons	Population is expected to have minimal impact on the demand for maintenance of transport infrastructure, which was designed to accommodate a larger population.
Demographic Change	Ageing demographic. 41 % of the population is 50 years and over.	Ageing population is likely to continue	Ageing population is expected to increase demand for accessible transport infrastructure to people with limited mobility or vision, for example: concrete footpaths, kerb ramps and facilities to assist people with limited mobility to cross the wide streets that are a feature of Broken Hill. Council also have obligations under the disability inclusion action plan to provide equitable access for those with less mobility.
Climate Change	Increased overall temperatures	Increase in number of hot days	Affects function and utilisation of active transport networks. Community awareness and acceptance/denial of climate science affects willingness to reduce fossil fuel use and support emissions reduction strategies.
Tourism	Increased number of tourists and events	Tourist numbers increasing	Tourists required connectivity of transport hubs, tourist accommodation and attractions.
Industry	Significant mining and grazing within the region	Potential for increased mining activity.	Accelerated deterioration of local roads used by heavy vehicles evident. Additional funds required for ongoing maintenance.

The population of Broken Hill (as of the 2021 ABS Census) has the population at 17,588 with projections have the population decreasing.

Figure 9: Age distribution of Broken Hill



Source: ABS 2021 Census Broken Hill

4.2. DEMAND MANAGEMENT PLANNING

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

Opportunities identified to date for demand management are shown in the table below:

Table 11: Demand Management Plan Summary

Demand Drivers	Impact on Service	Demand Management Plan
Population	Population is expected to have minimal impact on the demand for maintenance of transport infrastructure which was designed to accommodate a larger population.	Prioritise asset renewals through a risk management approach, prioritise roads which are highly trafficked and in the most densely populated residential areas. Invest in more preventative maintenance and planned resealing, patching and crack sealing works to extend useful life of transport assets. Seek funding opportunities from Governmental Bodies and the RMS.
Demographic Change	Ageing population is expected to increase demand for accessible transport infrastructure to people with limited mobility or vision, for example: concrete footpaths, kerb ramps and facilities to assist people with limited mobility to cross the wide streets that are a feature of Broken Hill. Council also has obligations under the disability inclusion action plan to provide equitable access for those with less mobility.	Implement the Broken Hill Active Transport Strategy and Liveability Strategy. In forward planning, account for the possibility of decreased funds due to ageing demographic.
Mining and Heavy Vehicle Industry	Accelerated deterioration of local roads used by heavy vehicles evident. Additional funds required for ongoing maintenance. Voluntary Planning Agreements may be instigated towards roads maintenance	Ensure the heavy vehicles use primarily State and Regional roads as the maintenance costs are borne by the RMS instead of Broken Hill ratepayers. Lobby State & Federal governments for grants towards the maintenance and renewal of local roads.

5. LIFECYCLE MANAGEMENT

5.1. ASSET CONDITION

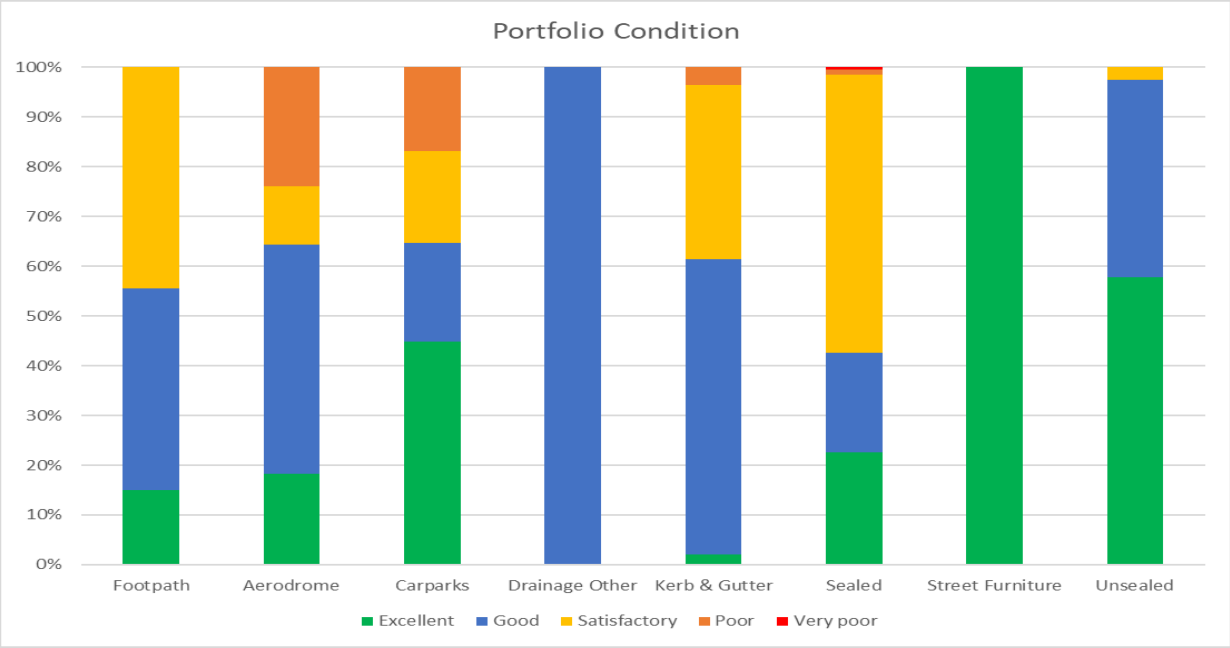
Council's most recent network-wide condition assessment took place in 2018/19.

The condition of Council's assets by asset value, based on Council's asset indexation (desktop valuation) 22/23, is detailed below:

Table 12: Condition of Council's Assets

Asset Class	Asset Type	Condition					
		1	2	3	4	5	$ Grand Total
Footpaths	Footpath	2,205,170	5,963,219	6,520,371			14,688,760
Roads	Aerodrome	3,254,297	8,268,005	2,075,581	4,293,911		17,891,793
	Carparks	1,596,921	705,530	658,719	601,456		3,562,627
	Drainage Other		73,455				73,455
	Kerb and Gutter	715,053	20,093,038	11,907,859	1,197,113		33,913,064
	Sealed	39,525,430	35,340,954	98,022,577	1,767,892	873,946	175,530,799
	Street Furniture	519,995					519,995
	Unsealed	1,100,658	756,779	47,146			1,904,583
Total $		**48,917,524**	**71,200,980**	**119,232,254**	**7,860,372**	**873,946**	**248,085,076**

Figure 10: Asset Condition by Group



5.2. SYSTEMS

Information systems are essential for storing and analysing asset information to make good asset management decisions. The key asset management information systems used for the transport portfolio are summarised in the table below.

Table 13: Systems

System	Function
Civica	Finance asset register
IAM.Omni	Defect recording and works order management
Reflect	Defect management (state network)
Geographic Information Systems (GIS)	Mapping and spatial information including asset condition from condition assessment

5.3. LIFECYCLE PLAN – MAINTENANCE STRATEGIES

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 functioning but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life. Typically, this can be categorised as:

- Reactive Maintenance - work on defects, failures and or damaged assets that are not able to be used or operated or are about to fail.
- Planned Proactive and Cyclical Maintenance – works identified through scheduled maintenance/asset inspections whereby assets are not operating as designed or to 100% capacity
- Operations - regular activities to provide services such as cleansing, street sweeping, utilities and
- Council currently maintains its roads network with respect to the following asset hierarchy:

Table 14: Road Classification Hierarchy

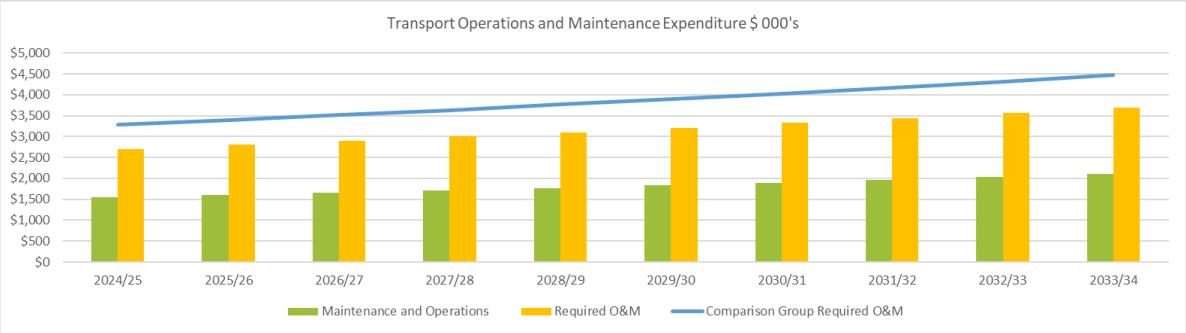
Road classification	Class	Funding	Maintenance Responsibility
Classified Road	Highway	Transport for NSW	Transport for NSW
	State Road/Main Road	Transport for NSW	Council
Unclassified	Regional	Transport for NSW	Council
Local	Local	Council	Council

Council also maintains approximately 25km of State roads under the Regional Maintenance Council Contract. While these Roads are not part of Council's network, the contract draws on the same internal resources and is prioritised ahead of local road maintenance. Council's Roads and Maritime (RMS) Roads Maintenance Council Contract operates under the REFLECT program where all inspections, defects, and achievements are logged for RMS to monitor.

Reviewing OPEX expenditure against required spend (as identified in its 2022/23 financial statements), Council is not currently meeting required expenditure to operate and maintain its network (either as reported or compared to similar Councils).

However further investigation is required into whether all costs are operational in nature and whether any costs are associated with other asset classes.

Figure 11: Transport Operations and Maintenance Expenditure



5.4. LIFECYCLE PLAN – RENEWAL STRATEGIES

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential.

Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure. Assets requiring renewal/replacement are identified using condition and defect data to determine critical renewals.

A proposed renewal criteria table for proposed projects is shown below:

Table 15: Renewal Criteria

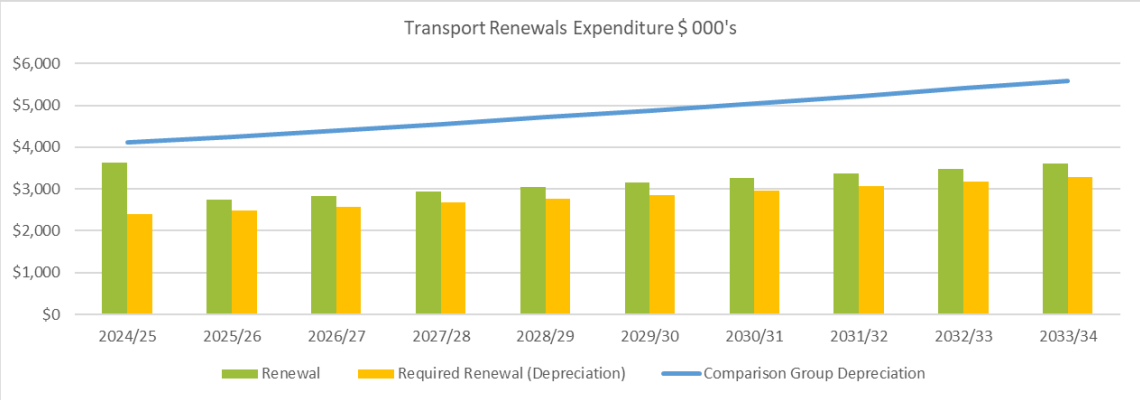
Criteria	Weighting
Road Hierarchy	10%
Remaining Life / Condition	80%
Customer Complaints	10%
Total	**100%**

Improvements to the footpath network are prioritised as follows:

Table 16: Footpath Improvement Criteria (Broken Hill Active Transport Plan 2019)

Criteria	Weighting
Condition OR	40%
Obstructions OR	
Crossing compliance	
Proximity to CBD	20%
Proximity to schools, TAFE, universities	20%
Proximity to health institutions, retirement and nursing homes	20%
Total	**100%**

Figure 12: Transport CAPEX Expenditure



Council compared its budgeted/actual CAPEX expenditure for its Transport portfolio against its annual depreciation requirements. This showed that Council currently has adequate funds to meet the required level of funding. However, Council also compared its depreciation against similarly categorised councils by the OLG which showed that Council depreciates its assets at a rate significantly lower than that of the comparison group. Council should review its historical renewal spend, proposed forward works program, and useful lives of assets to ensure depreciation is reflective of the assets' consumption.

6. RISK MANAGEMENT

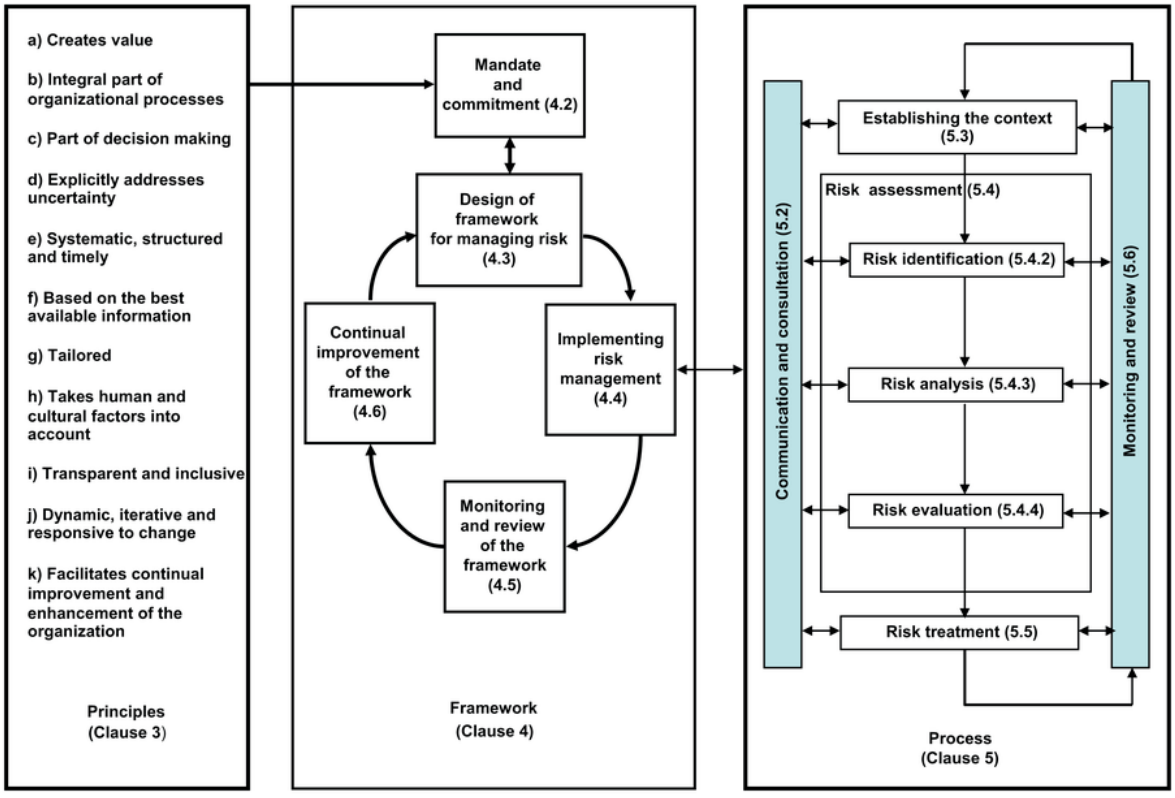
6.1. RISK MANAGEMENT APPROACH

Risk management is defined in 'AS/NZS 4360:2004' as: "the culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects".

Council is committed to a structured and systematic approach to the management of risk with Council's enterprise risk management framework aligned with ISO 31000:2018. This aims to embed the principles of risk management in all aspects of Council's operations, which ultimately:

- Increases the likelihood of Council achieving its objectives.
- Creates an environment where all employees have a key role in managing risk.
- Encourages proactive management.
- Improves the identification of opportunities and threats.
- Improves stakeholder confidence and trust.
- Improves financial stability and minimise losses.
- Improves organisational performance.

Figure 13: ISO 31000 Framework



This is a structured, best-practice and proven approach that is to be applied Council-wide to support the management of strategic, operational, financial, regulatory, and other risk. Under this approach, there are five key stages to the risk management process:

- **Communicate and Consult** - With internal and external stakeholders
- **Establish Context** - The boundaries
- **Risk Assessment** - Identify, analyse and evaluate risks
- **Treat Risks** - Implement and assess controls to address risk
- **Monitoring and Review** - Risks reviews and audit

6.2. INFRASTRUCTURE RISK MANAGEMENT FRAMEWORK

Council has undertaken an analysis of the key infrastructure risks for each of its asset classes in its operational risk register. The risk analysis (likelihood and consequence) and treatment criteria specific to each asset class have been identified and in general, risks are evaluated in the following way:

- Risk Identification
- Risk Analysis
- Risk Treatment
- Risk Treatment Plan

6.3. INFRASTRUCTURE RISKS

Council has identified high-level infrastructure-based risks that are associated with the management of its assets in accordance with its corporate infrastructure risk management framework. A summary of these risks can be found in the following table.

Table 17: Summary of High-level Risks

Service or Asset at Risk	What Can Happen	Risk Rating	Risk Treatment Options	Residual Risk	Cost Indication
Footpaths	Accidents- Trips and falls that result in litigation due to pavement deterioration	High	PROPOSED OPTION - Instigate inspection schedule. Prioritise works based on a risk approach. Slab replacement or grind.	Medium	$ Staff Time
			Instigate prioritised actions from the Pedestrian Access Mobility Plan.	Low	Per Project Cost
Roads	Roads are not trafficable or pose additional risks to road users due to heavy stormwater flows caused by storm events	High	PROPOSED OPTION - Road closures are impractical (stormwater would recede before road closures are established).	High	Staff Time
			Additional signage and driver education program warning of the risks along affected roads and intersections.	Medium	
			Extension of the existing underground stormwater network.	Low	Per Project Cost
			Construction of detention basins at strategic locations to reduce peak stormwater flows.	Low (for roads downstream)	Per Project Cost
Roads	Silt deposited on roads increases risk of accident	High	PROPOSED OPTION - Clean up after storms (may take several weeks)	Medium➔Low	Per Event Cost
			Control stormwater flows from properties onto footpaths, nature strips and roads	Low	Per Project Cost
			Construct footpaths and driveways, treat nature strips to reduce scouring (lawn, native vegetation, pave)	Low	Per Project Cost

6.4. INFRASTRUCTURE RESILIENCE

Organisational reliance refers to the ability of Council to continue to execute its responsibilities throughout adverse events. Infrastructure resilience refers to the ability of infrastructure to withstand increasingly frequent and severe weather events as well as overall increasing temperatures.

Climate Change is a significant driver of infrastructure risk (see International Infrastructure Management Manual 2020, online version, section 3.2.8). Examples of the hazards posed by climate change are shown below.

Table 18: Hazard Examples Posed by Climate Change

Threat/hazard	Resilience (L, M, H)	Improvements/Interventions
Extreme weather events – rain – roads become impassable	Low	Ensure Council's emergency Management Plan remains current and covers all reasonable foreseeable potential emergencies
An increase in the number of hot days per year affects timing and quality of construction works	Medium	
Climate change leading to more frequent and severe weather events	Low	Develop an infrastructure resilience strategy

6.5. CRITICAL ASSETS

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

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Council has not yet identified critical assets. A proposed approach is shown below:

Table 19: Critical Assets

Criteria	High	Medium	Low
Road Classification	Arterial	Primary Collector/Local Collector	Local Access
Emergency Services	Police Ambulance	RFS, NSWFB, SES	Airfield, Council Depot
Schools	40km zones		
Bus routes	School Bus Routes		
Accident history	Fatality	Accidents (hospitalisation)>5	
Commercial/Industrial	Roads to Energy Supply/Distribution Facilities	Roads to Quarry/Waste/Water Supply/Treatment Facilities	Roads to Administration (Essential Services)

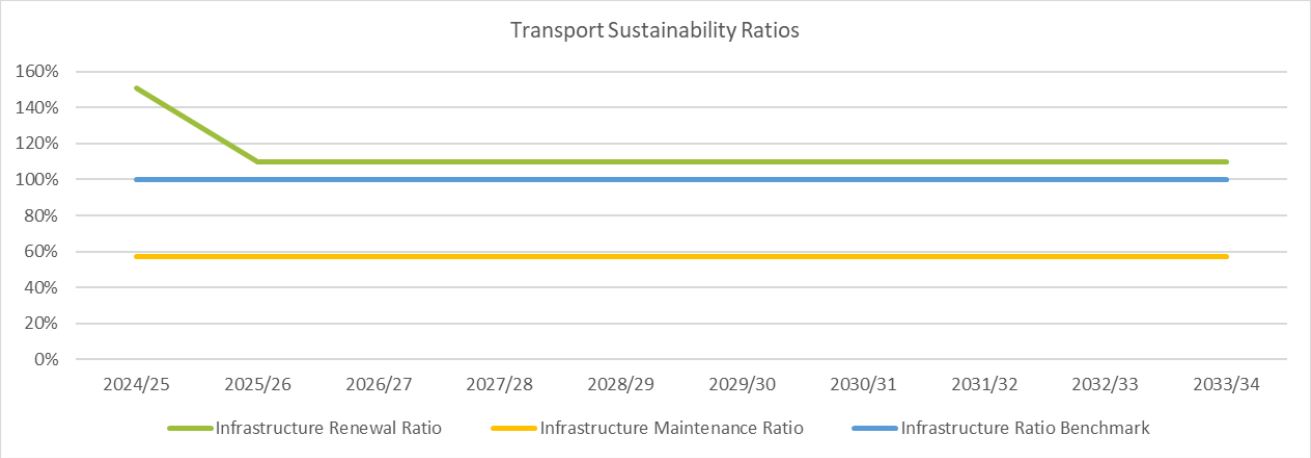
7. FINANCIAL SUMMARY

7.1. FINANCIAL PERFORMANCE

Council's sustainability ratios are shown in the charts below. Based on the proposed budget 24/25, the infrastructure renewals ratio is above the OLG benchmark of 100%.

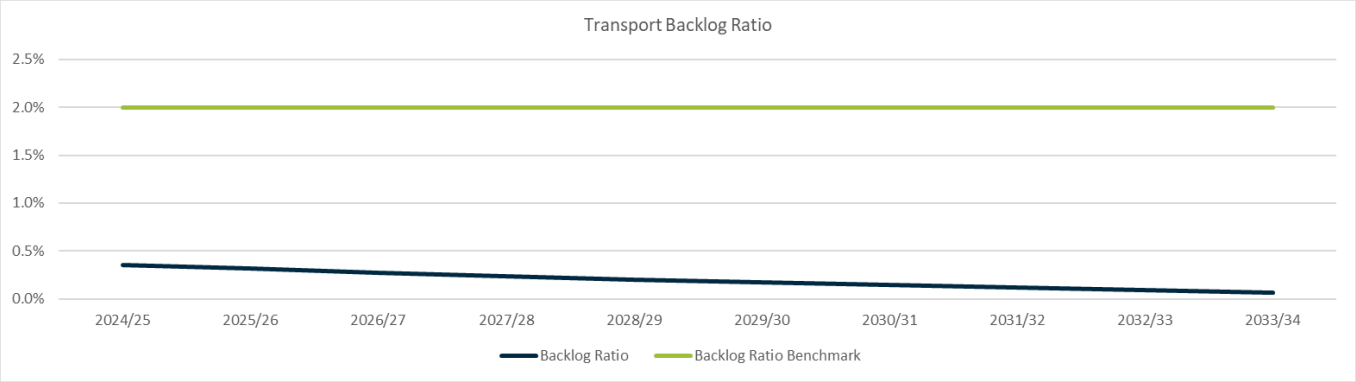
The reported maintenance ratio is below the OLG benchmark of 100%, however this ratio is highly dependent on the calculation method and Council's assumptions about what is considered "maintenance."

Figure 14: Transport Sustainability Ratios



The forecast backlog ratio is below the 2% benchmark.

Figure 15: Transport Backlog Ratio



7.2. EXPENDITURE FORECAST

Table 20: Expenditure Forecast

Expenditure Type	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Actual (Budgeted) Expenditure										
Renewal	$3,630	$2,740	$2,836	$2,936	$3,038	$3,145	$3,255	$3,369	$3,487	$3,609
New and Expanded	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance and Operations	$1,542	$1,595	$1,651	$1,709	$1,769	$1,831	$1,895	$1,961	$2,030	$2,101
Total Expenditure	**$5,171**	**$4,336**	**$4,488**	**$4,645**	**$4,807**	**$4,976**	**$5,150**	**$5,330**	**$5,516**	**$5,710**
Required Expenditure										
Required Renewal (Depreciation)	$2,408	$2,492	$2,580	$2,670	$2,763	$2,860	$2,960	$3,064	$3,171	$3,282
New and Expanded	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Required O&M	$2,706	$2,801	$2,899	$3,000	$3,105	$3,214	$3,326	$3,443	$3,563	$3,688
Total Required Expenditure	**$5,114**	**$5,293**	**$5,478**	**$5,670**	**$5,868**	**$6,074**	**$6,286**	**$6,506**	**$6,734**	**$6,970**
OPEX Balance (GAP)	-$1,164	-$1,205	-$1,247	-$1,291	-$1,336	-$1,383	-$1,431	-$1,481	-$1,533	-$1,587
RENEWAL Balance (GAP)	$1,222	$248	$257	$266	$275	$285	$295	$305	$316	$327
TOTAL Balance (GAP)	**$57**	**-$957**	**-$991**	**-$1,025**	**-$1,061**	**-$1,098**	**-$1,137**	**-$1,177**	**-$1,218**	**-$1,260**
Comparison Group Required O&M	$3,334	$3,451	$3,571	$3,696	$3,826	$3,960	$4,098	$4,242	$4,390	$4,470
Comparison Group Depreciation	$3,961	$4,100	$4,244	$4,392	$4,546	$4,705	$4,870	$5,040	$5,217	$5,597

Figure 16: Renewals Forecast

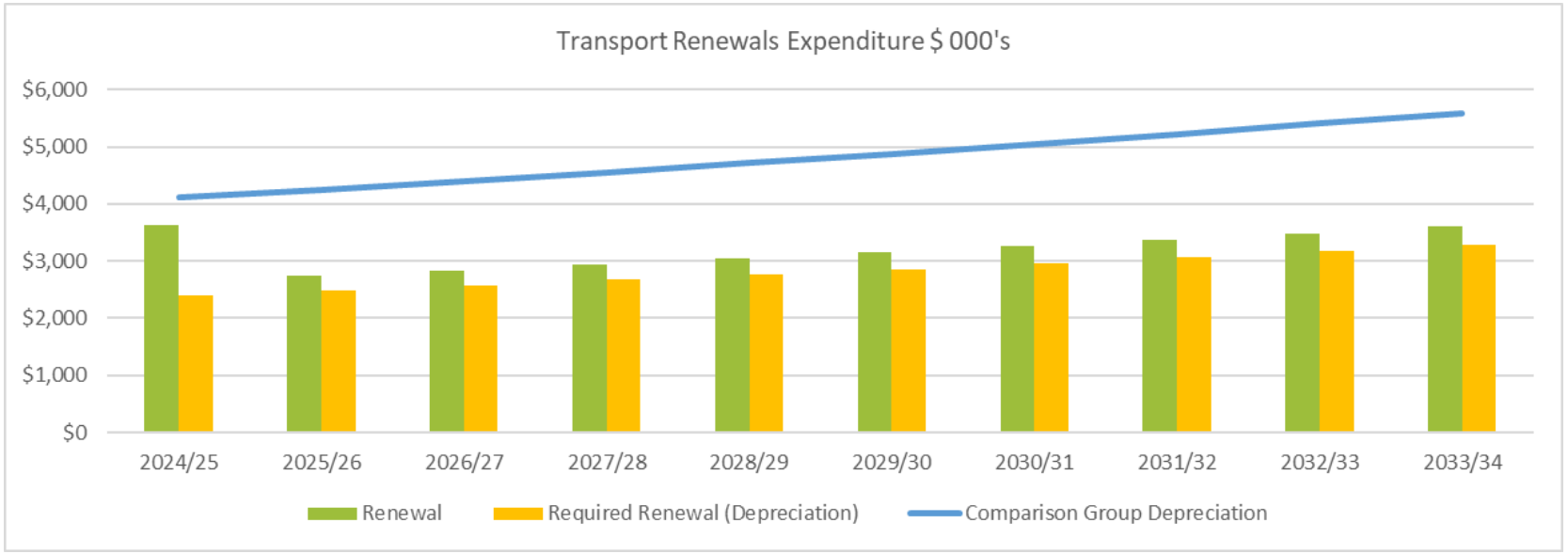
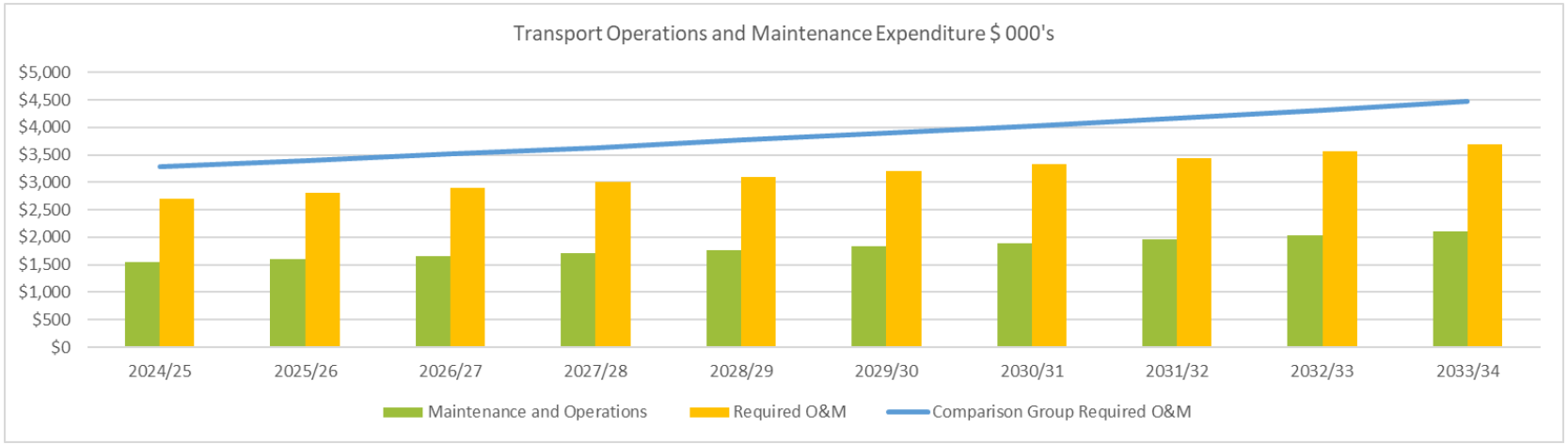


Figure 17: Operations and Maintenance Forecast



7.3. ASSET VALUATION SUMMARY

The valuation of assets is a fundamental part of the asset management cycle. It provides the critical link between asset management and financial management. The values of council's transport assets are shown in the following table.

Table 21: Asset Valuation Summary

Asset Class	Gross ($000s)	Current Value ($000s)	Depreciation ($000s)
Road	**$233,396,316**	**152,561,462**	**$2,157,396**
Aerodrome	$17,891,793	$11,781,855	$247,474
Carparks	$3,562,627	$2,600,046	$49,305
	$73,455	$46,893	$823
Kerb and Gutter	$33,913,064	$18,452,863	$401,425
Sealed	$175,530,799	$117,585,376	$1,403,076
Street Furniture	$519,995	$445,079	$22,114
Unsealed	$1,904,583	$1,649,352	$33,179
Footpaths	**$14,688,760**	**$8,466,114**	**$196,775**
Total	**$248,085,076**	**$161,027,576**	**$2,354,171**

Source: Asset Valuer Pro 1/7/2022 indexed by BHCC finance team for 2022/23.

These values have been indexed by Council as required by the NSW Audit Office.

7.4. ASSUMPTIONS AND CONFIDENCE LEVELS

7.4.1. Financial Assumptions

This plan is based on audited financial statements 2022/23, the adopted budget 23/24, and draft budget 24/25.

An indexation rate of 3.5% has been applied to future years forecasts.

7.4.2. Confidence of Financial Forecasts

The confidence in the asset data used as a basis for the financial forecasts has been assessed using the following grading system, as outlined in the following below.

Table 22: Asset Data Confidence Scale

Confidence Grade	General Meaning
Highly reliable	Data based on sound records, procedure, investigations and analysis that is properly documented and recognised as the best method of assessment.
Reliable	Data based on sound records, procedures, investigations and analysis which is properly documented but has minor shortcomings; for example, the data is old, some documentation is missing, and reliance is placed on unconfirmed reports or some extrapolation.
Acceptable	Data based on sound records, procedures, investigations and analysis with some shortcomings and inconsistencies.
Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolation from a limited sample.
Very Uncertain	Data based on unconfirmed verbal reports and/or cursory inspection and analysis.

Summary of confidence in asset data for all asset classes is detailed in the table below.

Table 23: Asset Data Confidence Rating

Asset Class	Inventory	Condition	Age	Overall
Transport	Reliable	Acceptable	Reliable	Reliable

The overall confidence level of the plan is considered to be '**Reliable**'.

8. PLAN IMPROVEMENT AND MONITORING

Table 24: Improvement Plan Actions and Monitoring

Improvement Plan - Key High Priority Actions Area	Action	Priority	Owner	Cost indication	Timing
Asset Knowledge and Data	Council to develop and document guidelines and adopt a consistent approach for condition and defect assessment.	Medium	Assets	$	25/26
	Council to align technical and financial asset registers and processes to achieve a "single source of truth" for its assets	High	Assets	$	24/25
	Council to review its special schedule 7 reporting to ensure cost to satisfactory and cost to level of service capture agreed service levels	Very High	Assets Finance	$	24/25
Strategic Asset Planning Processes	Council to review long-term (ten-year) lifecycle costing requirements including CAPEX and OPEX	High	Assets Finance	$	24/25
	Council to develop comprehensive maintenance and renewal strategy for the management of its assets.	Medium	Assets	$	25/26
	Council to review current service levels and develop outcome-based service levels which align with IP&R Framework.	High	Assets Operations	$	24/25
	Council to engage community on developed service levels.	High	Assets	$$	24/25
	Council to undertake risk and criticality assessment of its asset portfolios.	High	Assets Operations	$	24/25
	Council to develop asset criticality framework to help define its critical infrastructure and assets	High	Assets Operations	$	24/25
Operations and Maintenance Work Practices	Following criticality assessment, Council to develop management strategies for critical infrastructure.	High	Assets Operations	$	25/26

Improvement Plan - Key High Priority Actions Area	Action	Priority	Owner	Cost Indication	Timing
Organisational Context	Review asset management roles and responsibilities to ensure that all functions of asset management are covered and are being carried out.	High	Executive	$	24/25
	Develop roles and responsibilities matrix to ensure that asset ownership and custodianship for all assets are known and communicated	High	Executive	$	24/25
	Develop a training plan for all staff undertaking asset management planning functions	High	Assets	$	24/25

8.1. IMPROVEMENT MONITORING

This plan will be reviewed annually. Improvement actions will be monitored by the Strategic Asset Management Coordinator.

BROKEN HILL

CITY COUNCIL

www.brokenhill.nsw.gov.au