ASSET MANAGEMENT STRATEGY 2022–26

MID-WESTERN REGIONAL COUNCIL

Contents

Introduction 3

Our Infrastructure Stock 5

Our Assets 6

Asset Conditions 7

Targets of Council Asset Management 9

Asset Management Improvement Strategies 11

Asset Management and Asset Maintenance Plans 14

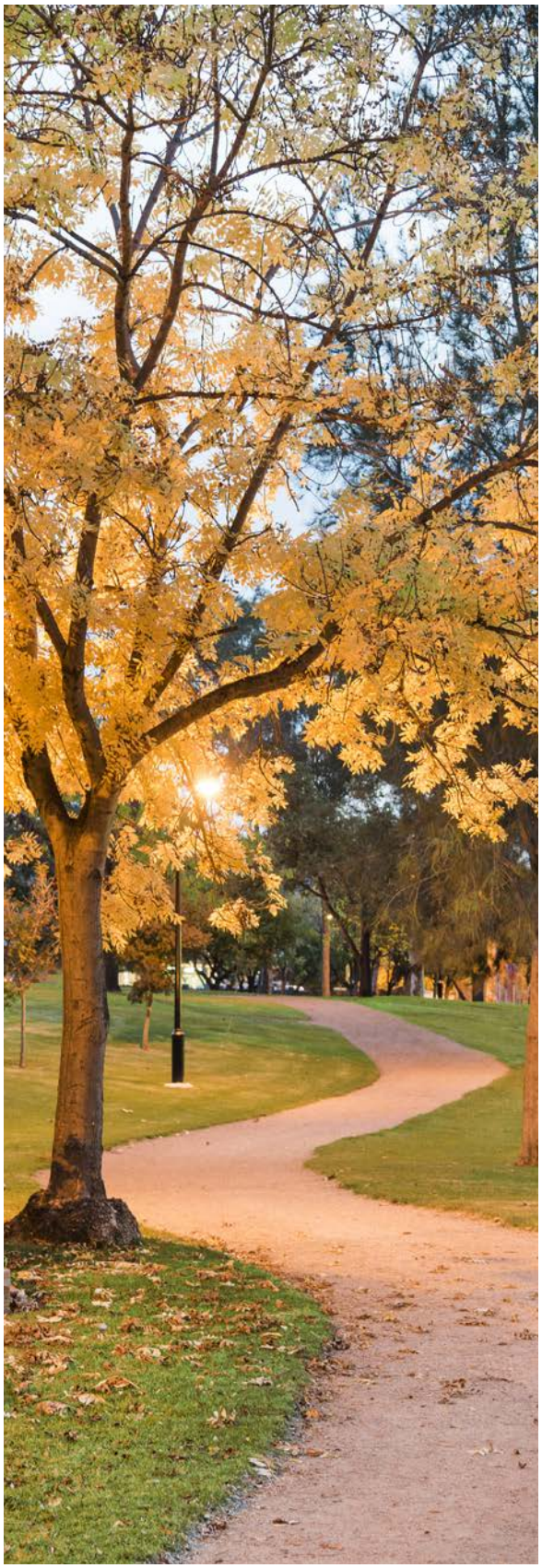
Our Asset Management System 15

Measuring Asset Expenditure 16

Critical Assets and Risk Management Strategies 17

Definitions 20

References 21



MID-WESTERN REGIONAL COUNCIL

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Introduction

Update intro

The Asset Management Strategy (AMS) is designed to provide strategies to manage Council's physical assets including setting parameters for asset selection, maintenance, inspection and renewal which plays a key role in determining the operational performance and sustainability of Council.

This Asset Management Strategy makes up a part of the Council Resourcing Strategy as required by the Local Government Integrated Planning and Reporting framework.

The Resourcing Strategy includes:

LONG TERM FINANCIAL PLAN

WORKFORCE STRATEGY

ASSET MANAGEMENT STRATEGY

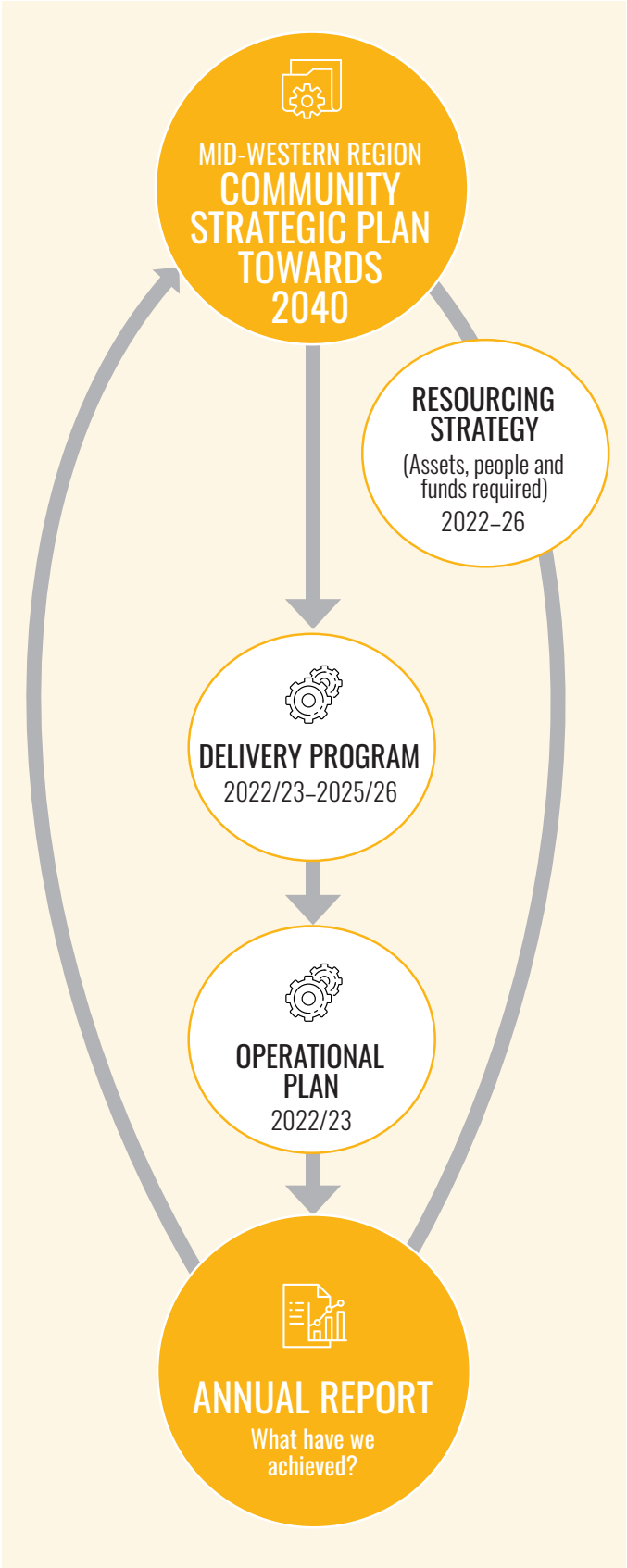
Asset Management planning incorporates an Asset Management Policy, Asset Management Strategy and Asset Management Plans.

OUR ASSET MANAGEMENT POLICY

The Asset Management Policy sets a vision for Council's asset management activities.

To manage and operate the appropriate mix of sustainable community infrastructure at the lowest life cycle cost that supports communities in the Mid-Western Region.

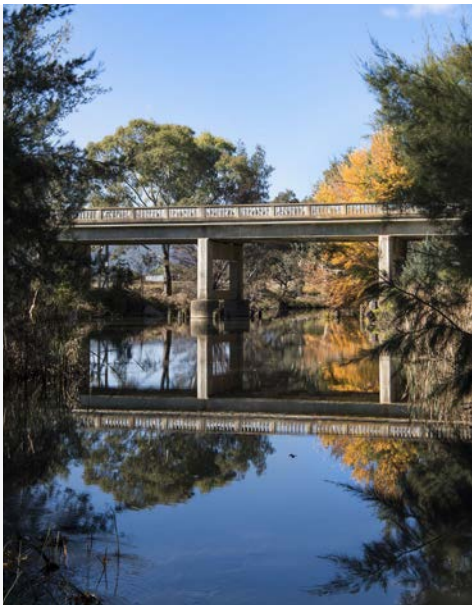
Council's endorsed Asset Management Policy is attached as Appendix 1.



ASSET MANAGEMENT

Asset management deals with the optimal management of physical asset systems and their life cycles. The objective is to minimise the whole of life cost of assets and to identify other critical factors such as risk or business continuity to be considered objectively in the decision making process. It represents a cross-disciplinary collaboration to achieve best net sustained value-for-money in the selection, design/acquisition, operations, maintenance and renewal/disposal of physical infrastructure and equipment, for the purpose of achieving the objectives of the Community Plan.

A strong and sustainable local government system requires a robust planning process to ensure that Council assets are managed in the most appropriate way on behalf of the community.



SERVICE DELIVERY

The Community Plan details the service outcomes and objectives, as derived from the community consultation process, of Council. The service areas that the community identified as important are grouped around the following themes:

LOOKING AFTER OUR COMMUNITY

Vibrant towns and villages with a rich history, a safe and healthy community, and a strong sense of community pride – a great place for families.

PROTECTING OUR NATURAL ENVIRONMENT

Conserving and promoting the natural beauty of our region.

BUILDING A STRONG LOCAL ECONOMY

A prosperous and diversified economy delivering lifestyle benefits to the community through employment, income and sustainable economic growth.

CONNECTING OUR REGION

Linking towns and villages and connecting our region to the rest of NSW.

GOOD GOVERNMENT

A strong Council that is representative of the community and effective in meeting the needs of our people.

Our Infrastructure Stock

Council utilises infrastructure assets to provide services to the community. Roads and footpaths provide transport services. Stormwater systems protect properties and roads from flooding and control water runoff quality. Park and landscape assets provide recreation services and enhance and protect the built and natural environment. Water and Sewerage services provide services essential for a town, and buildings provide cultural, recreational and community services. The Council provides a high level of service to its community due to the standard of construction and relatively young age of infrastructure assets.

Council's existing infrastructure stock was built over the past 100 years. During this past period of infrastructure expansion, little or no analysis was done to determine a strategy to sustain this infrastructure stock by matching future maintenance and renewal expenditures with future income projections. The pattern of infrastructure construction in the past points to a future peak in infrastructure renewal over and above maintenance activities.

The Asset Management Strategy is a procedure to determine what the asset stock needs to be to achieve strategic objectives. The Asset Management Strategy is therefore an ongoing process as strategic objectives develop and change.

The steps in this process are to:

- review the strategic trends
- assess potential impacts on the asset stock
- assess gaps in asset knowledge to enable the asset management plans and asset improvement plans to be developed

Linking of service levels and the cost of service delivery is an essential component of strategic asset management. It is essential that Council knows the true costs of service delivery and the service levels that are desired by the community and what level they are willing to pay for.

The opportunity for advanced asset management is to focus on facilitating community access to services rather than just building and maintaining assets. This can assist in reducing asset ownership below what, with hindsight, may be seen as either desirable or economically sustainable. Re-assessing what services – and, especially what level of service – the community requires, and seeking alternatives to Council service provision, can significantly reduce the future renewal funding problems Council is facing. Solutions include private provision, co-operating with neighbouring Councils and the private sector in the provision of joint services, and administrative assistance to community bodies, such as sporting or social groups, where services can be provided more cost effectively.

Our Assets

TYPES OF ASSETS

Council's asset types are summarised below and are categorised by the Community Plan themes which illustrates how these assets help meet the objectives as set out in the Community Plan:

LOOKING AFTER OUR COMMUNITY

- Streetscaping
- Community Buildings
- Swimming Pools and Water Park
- Cemetery assets
- Library Books
- Parks and Reserves
- Showgrounds
- Sportsgrounds
- Community Service and Program assets
- Animal Control Facilities
- Public Amenities
- Art Gallery

PROTECTING OUR NATURAL ENVIRONMENT

- Water Supply infrastructure
- Waste Water infrastructure
- Solid Waste Management assets
- Stormwater infrastructure
- Noxious weeds assets
- Environment education facilities
- Sustainable energy assets
- Wetlands and other community land

BUILDING A STRONG LOCAL ECONOMY

- Tourism signage and buildings
- Saleyard assets
- Investment property and development

CONNECTING OUR REGION

- Council roads and bridges
- Airports
- Footpaths and cycleways
- Communications assets

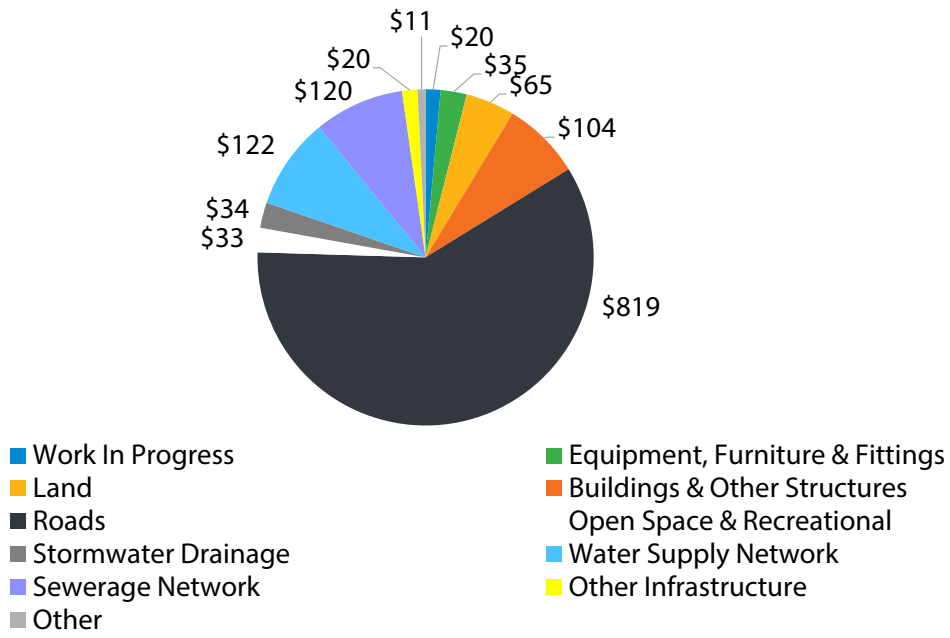
GOOD GOVERNMENT

- Corporate buildings
- Plant and machinery

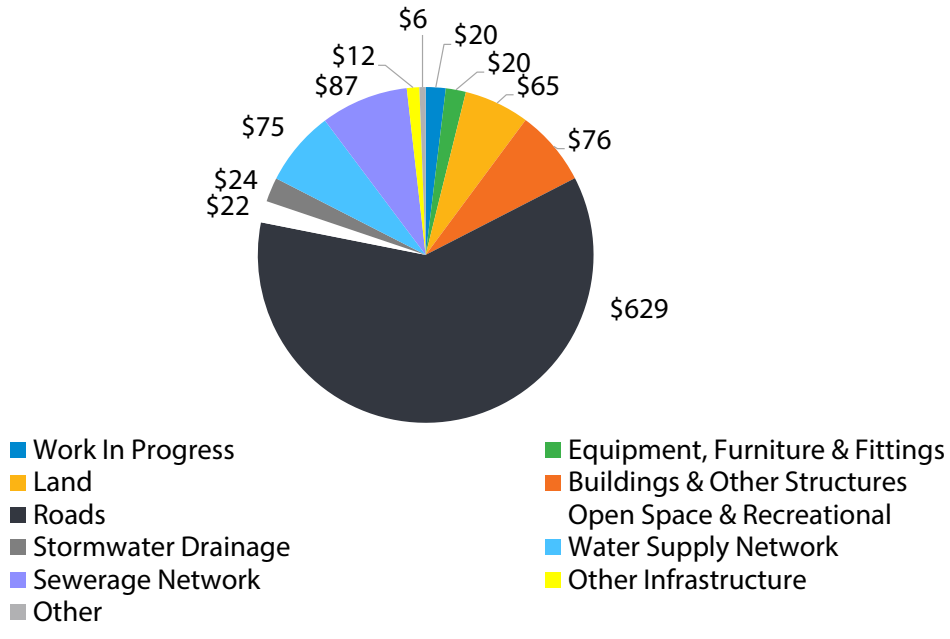
Asset Conditions

As at 30 June 2021, estimated replacement value and written down value of Council assets were over A$1.38 billion and A$1.04 billion, as represented in the pie charts.

GROSS REPLACEMENT COST (A$M)



WRITTEN DOWN VALUE (A$M)



The state of major infrastructure as reported in the Mid-Western Regional Council Financial Statements and Schedules at 30 June 2021 is included below:

Asset Class	Asset Category	Estimated Cost to bring Assets to Satisfactory Standard	Estimated cost to bring to the agreed level of service set by Council	2020/21 Required Maintenance*	2020/21 Actual Maintenance	Carrying Value	Gross Replacement Cost (GRC)	Assets in Condition as a Percentage of Gross Replacement Cost 1	2	3	4	5
Buildings	Buildings	415	415	1,463	1,386	75,035	103,381	11%	2%	86%	1%	0%
	Sub total	**415**	**415**	**1,463**	**1,386**	**75,035**	**103,381**	**11%**	**2%**	**86%**	**1%**	**0%**
Other structures	Other structures	29	29	–	–	558	897	63%	27%	2%	5%	3%
	Sub total	**29**	**29**	**–**	**–**	**558**	**897**	**63%**	**27%**	**2%**	**5%**	**3%**
Roads	Roads	21,189	21,189	3,784	4,091	541,900	658,244	16%	42%	29%	8%	5%
	Bridges	747	747	189	116	59,952	113,760	15%	31%	50%	44%	0%
	Footpaths and cycleways	205	205	64	68	8,164	13,642	42%	26%	22%	10%	0%
	Other road assets	2,223	2,223	17	18	18,660	33,462	17%	24%	19%	38%	2%
	Sub total	**24,364**	**24,364**	**4,054**	**4,293**	**628,676**	**819,108**	**16%**	**40%**	**31%**	**9%**	**4%**
Water supply network	Other	6,546	6,546	1,643	1,644	75,004	122,004	23%	39%	23%	9%	5%
	Sub total	**6,546**	**6,546**	**1,643**	**1,644**	**75,004**	**122,004**	**23%**	**39%**	**23%**	**9%**	**5%**
Sewerage network	Sewerage network	4,415	4,415	1,126	1,036	87,422	119,601	28%	32%	9%	27%	4%
	Sub total	**4,415**	**4,415**	**1,126**	**1,036**	**87,422**	**119,601**	**28%**	**32%**	**9%**	**27%**	**4%**
Stormwater drainage	Stormwater drainage	54	54	545	600	24,247	33,698	20%	2%	78%	0%	0%
	Sub total	**54**	**54**	**545**	**600**	**24,247**	**33,698**	**20%**	**2%**	**78%**	**0%**	**0%**
Open space/ recreational assets	Swimming pools	29	29	504	481	5,888	11,063	29%	23%	47%	1%	0%
	Other Recreational/ Open Space	488	488	2,345	1,956	15,623	21,445	44%	29%	18%	8%	0%
	Sub total	**517**	**517**	**2,849**	**2,437**	**21,511**	**32,508**	**39%**	**27%**	**28%**	**6%**	**0%**
Other infra-structure assets	Other	269	269	736	706	12,485	20,491	26%	31%	39%	3%	1%
	Sub total	**269**	**269**	**736**	**706**	**12,485**	**20,491**	**26%**	**31%**	**39%**	**3%**	**1%**
	TOTAL ALL ASSETS	**36,609**	**36,609**	**12,416**	**12,102**	**924,938**	**1,251,688**	**19%**	**34%**	**34%**	**10%**	**4%**

* Required maintenance is the amount identified in Council's asset management plans

KEY

1	EXCELLENT	No work required (normal maintenance)	3	AVERAGE	Maintenance work required	5	VERY POOR	Urgent renewal/upgrading required
2	GOOD	Only minor maintenance work required	4	POOR	Renewal required			

Targets of Council Asset Management

There is a recognised backlog in asset renewal activities of over $36 million (see estimated cost to bring up to a satisfactory condition above), and no gap in required maintenance expenditure (see difference in required and actual annual maintenance above). Because of this, Council is working on closing the gap in asset renewal expenditure with 10 year projection of capital expenditure included in the draft Long Term Financial Plan as follows.

10 year Financial Plan for Year ending 30 June 2031	Current	Proposed Budget								
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Capital Expenses by asset class - New/Upgrade										
Plant and Equipment	0	30,000	0	0	0	0	0	0	0	0
Office Equipment	0	0	0	0	0	0	0	0	0	0
Operational land	0	0	0	0	0	0	0	0	0	0
Buildings - non-specialised	2,200,142	9,405,590	0	0	630,000	630,000	630,000	630,000	630,000	630,000
Other Structures	5,359,799	9,501,038	747,743	1,001,696	120,147	123,151	126,230	129,386	132,621	3,135,937
Roads & Footpath	14,317,073	6,342,201	400,000	400,000	1,370,000	1,370,000	1,370,000	1,370,000	1,370,000	1,370,000
Bridges	7,712,797	6,214,091	12,051,818	7,261,818	0	0	0	0	0	0
Stormwater Drainage	0	0	0	0	30,000	30,000	30,000	30,000	30,000	30,000
Water Supply Network	996,000	2,670,055	99,481	3,150,000	8,380,000	1,031,000	8,102,000	103,000	103,000	104,000
Sewerage Network	24,500	24,929	0	25,872	26,000	27,000	6,027,000	28,000	29,000	29,000
Swimming Pools	45,000	45,788	0	0	0	0	0	0	0	0
Other Open Space/ Recreational Assets	4,874,843	6,933,328	976,247	63,491	240,000	240,000	240,000	240,000	240,000	240,000
Other Infrastructure	358,695	203,458	206,323	211,575	215,480	220,892	226,439	233,125	237,953	244,927
Total Capital Expenses - New/Upgrade	**35,888,849**	**41,370,478**	**14,481,612**	**12,114,452**	**11,011,627**	**3,672,043**	**16,751,669**	**2,763,511**	**2,772,574**	**5,783,864**
Capital Expenses by asset class - Renewal										
Plant and Equipment	7,105,452	3,709,334	4,255,933	4,504,350	4,616,959	4,732,383	4,850,693	4,971,960	5,096,259	5,223,665
Office Equipment	0	0	0	0	0	0	0	0	0	0
Buildings - non-specialised	1,898,355	879,691	688,010	699,493	1,216,981	1,234,906	1,253,278	1,272,110	1,291,413	1,311,199
Other Structures	1,747,725	1,579,030	3,480,430	300,728	433,823	308,019	536,245	265,501	517,789	350,108
Roads & Footpath	6,871,953	7,345,246	8,099,862	8,215,299	12,050,682	12,261,201	12,476,980	12,698,153	12,924,857	13,157,229
Bridges	2,150,000	61,720	63,109	64,000	65,600	67,240	68,921	70,644	72,410	74,220
Stormwater Drainage	674,730	326,849	332,567	339,215	347,696	356,389	365,299	374,432	383,793	393,387
Water Supply Network	2,147,000	3,321,000	4,101,000	5,852,000	1,454,000	1,146,000	1,452,000	4,688,000	4,565,000	1,732,000
Sewerage Network	2,068,165	9,892,000	13,266,926	1,114,000	1,197,000	1,501,000	1,206,000	1,711,000	1,717,000	1,721,000
Swimming Pools	105,000	105,000	150,000	150,000	153,750	157,594	161,534	165,572	169,711	173,954
Other Open Space/ Recreational Assets	1,687,239	225,737	244,687	241,671	747,713	753,906	760,254	766,761	773,430	780,266
Other Infrastructure	138,279	140,698	143,161	146,022	149,673	153,415	157,250	161,181	165,211	169,341
Library Books	92,803	94,441	96,094	98,014	100,464	102,976	105,550	108,189	110,894	113,666
Total Capital Expenses - Renewal	**26,686,701**	**27,680,746**	**34,921,779**	**21,724,792**	**22,534,341**	**22,775,029**	**23,394,004**	**27,253,503**	**27,787,767**	**25,200,035**
Total Capital Expenses – All	**62,575,551**	**69,051,224**	**49,403,391**	**33,839,244**	**33,545,968**	**26,447,072**	**40,145,673**	**30,017,014**	**30,560,341**	**30,983,899**

The budget for New/Upgrade for current and next years are quite high compared to the remaining financial years, due to large amount of State and Federal fund projects. The imbalance between the rates of renewal and asset consumption has developed because renewal has a "delay function", most council's assets have been built by developers of with funding from State and Federal over the past 50 years or more. Renewal is lumpy; unlike depreciation, which averages the renewal costs, actual payments for renewal are periodic, and for any given asset group renewal can be far less, or much more, than depreciation.

Based on our current geopolitical and economic environment, it's hard to predict the incoming funding so council develops 10 year financial planning to assess where it stands in preparing for the renewal challenges. Renewal is not associated with increased funding. Instead, it has to compete with many other demands on Council, and recently these demands – for social and environmental reasons as well as for increased services – have themselves been increasing. Revenue increases have not kept pace with these extra demands; a limited revenue base and community sensitivity to tax (property rates) increases have been the main reasons. Renewal is exacerbated where maintenance is underfunded.

Council's objective is to continue reviewing depreciation methodology and effective lives. This will maintain that the infrastructure backlog figure as reported in special schedule – Infrastructure accurately reflects current costs to bring to satisfactory standard and will also necessarily require community engagement in order to determine the meaning of satisfactory.

ONGOING IMPROVEMENTS

The NSW Government aimed to improve the strength and effectiveness of local government in providing services and infrastructure that communities need. Mid-Western Regional Council has engaged in independent Internal Audit Assessment of the adequacy and effectiveness of processes, practices and controls in relation to Asset management. The review report addressed key features from "Fit for the Future" reforms as well as a number of significant recommendations:

- Sustainability
- Infrastructure and Service Management
- Structured workflow
- Invest into developing and improving Council Asset Management System
- Updating Asset Management Plans

On receiving these results, Council prepared a renewed Business Improvement Program (BIP) which directly tackles the challenges. Some of the Internal Audit recommendations are monitored through Pulse software, progress timeline, obstacles and actions. Others are reflected in Council's renewed Business Improvement Program, which will be reported in Council's 2021-2031 Long Term Financial Plan.

In order to meet these forecast benchmarks as well as meeting the internal audit recommendations, Council is required to complete the following Asset Management improvement strategies.

Asset Management Improvement Strategies

OBJECTIVE: EXAMINE OPPORTUNITIES TO REDUCE OPERATING EXPENSE

Strategy 1: Review current depreciation methodology and process

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Refine asset management data and systems	Ongoing	Reliable asset management data and systems to assist decision making
ii) Examine alternative depreciation options and what is required to demonstrate preferred option is fair and reasonable	Ongoing	Preferred methodology for treatment of depreciation
iii) Confirm depreciation process and educate staff	Ongoing	Consistent treatment of depreciation costs
iv) Reassess roads Fair Value ahead of 5 year schedule	Ongoing	Accurate assessment of depreciation costs
v) Implement in line with fair value assessment over 5 year period	Ongoing	Accurate assessment of depreciation costs

OBJECTIVE: IMPROVE ASSET MANAGEMENT SYSTEM, ASSET DATA AND SERVICE PROCESSES

Strategy 1: Continuation of reviewing depreciation methodology and process

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Refine asset management data and systems	Ongoing	Reliable asset management data and systems to assist decision making
ii) Examine alternative depreciation options and what is required to demonstrate preferred option is fair and reasonable	Ongoing	Preferred methodology for treatment of depreciation
iii) Confirm depreciation process and educate staff	Ongoing	Consistent treatment of depreciation costs
iv) Reassess roads Fair Value ahead of 5 year schedule	Ongoing	Accurate assessment of depreciation costs
v) Implement in line with fair value assessment over 5 year period	Ongoing	Accurate assessment of depreciation costs

Strategy 2: Invest into upgrading and updating technology for Asset and Corporate Management System

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Invest into purchasing software modules to meet ongoing demands to maintain industry standards and provide level of services	Ongoing	Deliver services and infrastructure which meets community expectations
ii) Developing and improving mobile technology to increase efficiency, council assets maintenance, reporting and recording mandatory defects under the Local Government Act and Regulations	Ongoing	Deliver services, plan maintenance and local government reporting which meets community expectations
iii) Invest and develop BIA (Business Intelligence and Analytics): Strategy, Steps, Processes and Tools with in the corporate software	To be considered	Deliver smart actionable business insights and support data-driven decision making

Strategy 2: Asset management methodology and process used to determine asset condition, asset value and asset life

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Increase confidence levels and reliability of asset management data	Ongoing	Accurate asset management data
ii) Introducing mobile technology to record asset conditions and reporting defects	Ongoing	Deliver Operational Capital Projects and Maintenances Program which meets community expectations
iii) Link asset management decisions to community satisfaction levels and expectations	Ongoing	Deliver services and infrastructure which meets community expectations

OBJECTIVE: ENSURE RATIONAL ASSET DECISIONS ARE MADE

Strategy 1: Provide reliable asset management data

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Increase confidence levels and reliability of asset management data	Ongoing	Reliable asset management data
ii) Ensure training is provided to relevant staff	Ongoing	Consistent asset management practices

Strategy 2: Ensure appropriate asset management systems are in place

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Review current asset management systems and identify areas for improvement	Ongoing	Effective asset management
ii) Ensure training is provided to relevant staff	Ongoing	Consistent asset management practices
iii) Invest and develop BIA (Business Intelligence and Analytics): Strategy, Steps, Processes and Tools with in Asset Management and Corporate Management software	To be considered	Effective asset management

Strategy 3: Conduct annual condition checks on key assets

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Refine framework for assessing asset conditions, with a focus on making assessments as objective as possible	Ongoing	Preferred methodology for conducting annual condition checks
ii) Ensure training is provided to relevant staff	Ongoing	Consistent annual condition check practices
iii) Continue program of annual condition checks with mobile technology	Ongoing	Accurate asset condition data

Strategy 4: Identify obsolete assets and opportunities for asset rationalisation

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Prepare list of all Council assets that may be considered surplus to requirements, starting with land and buildings	Ongoing	Identify future scope to dispose of unused or duplicate land and building assets
ii) Identify land and buildings which are not used at all and/or have no future use	Ongoing	Identify unused assets

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
iii) Develop a strategy for disposing of assets over a 5 year time period, including community consultation strategy	Ongoing	Asset rationalisation strategy
iv) Invest and develop BIA (Business Intelligence and Analytics) to calculate costing and analyse asset lifecycle for smart decisions	TBC	Asset rationalisation strategy

Strategy 5: Educate community on current service level standards with a focus on the regionalisation of assets rather than duplication of assets around the region

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Discuss as part of community engagement process for next round of IP&R	Ongoing	Provide opportunities for community engagement and feedback
ii) Setting the Service level Standard	Ongoing	It's discussed in the Asset Management Plan and will be detailed in the Asset Maintenance Plan

Strategy 6: Consider the full life cycle costs associated with the investment in new

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Develop process/guideline for new asset investment	Ongoing	Sound business case for investment

OBJECTIVE: ADDRESS INFRASTRUCTURE BACKLOG

Strategy 1: Review existing infrastructure backlog to fully understand what is required and establish clear parameters for reporting an accurate backlog in the future

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Align activities to OLG planned changes to Special Schedule 7	Ongoing	Accurate infrastructure backlog data

Strategy 2: Develop a program to have the backlog reduced over a defined timeframe

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Develop strategy to address backlog in next 10 years, prioritising areas to be addressed	Ongoing	Strategy to address backlog

Strategy 3: Increase spend on asset maintenance to close gap between required and actual spending

KEY MILESTONES	TARGET DATE	EXPECTED OUTCOME
i) Increase confidence and reliability of data to identify actual and required expenditure	Ongoing	Accurate asset maintenance data
ii) Review general ledger and the capture of asset data to improve identification of operational versus maintenance costs	Ongoing	Accurate asset maintenance data
iii) Improve understanding of remaining useful life of assets and spending required to achieve this life	Ongoing	Accurate asset maintenance data
iv) Identify options for funding to start closing infrastructure gap based on satisfaction levels of community	Ongoing	Strategy to close asset maintenance gap
v) Increased cash funding on asset renewals (from additional revenues, operating expense savings and identified options in point iv)	Ongoing	Closure of asset maintenance gap

Asset Management and Asset Maintenance Plans

Asset Management Plans (AMPs) and Asset Maintenance Plans are long-term plans updated every 4 to 5 years outlining the asset activities for each service, frequency of maintenance, assets condition assessments and predicting the upcoming renewal projects. The International Infrastructure Management Manual (IIMM) defines an Asset Management Plan as *"…a written representation of the intended asset management programs for one or more infrastructure networks based on the controlling organisation's understanding of customer requirements, existing and projected networks, and asset conditions and performance."*

An AMP has been developed for each major asset group. AMPs incorporate, as a minimum, the following factors:

- Council will establish and monitor prescribed levels of service for each asset related service. The levels of service will be determined by Council in accordance with the Community Plan and corresponding Delivery Plan and Operating Plan
- Existing levels of service and associated cash flow projections for maintenance, renewal and upgrade will be documented
- The asset management plan will include the service provider, service levels, performance targets, asset custodian, life cycle cash flows and risk profiles for each service
- The capital works program will be developed from each asset management plan and will identify all works needed to achieve target service levels
- Council will have a funding model for all asset related services extending out at least 10 years into the future and a matching Funding Strategy which addresses the need for funds the peaks and troughs in this need and how the funds will be sourced

Asset Management Plans currently in place or programmed for development are:

- Transport (roads, bridges, culverts, footpaths, causeways, car parks, guardrails) Asset Management Plan
- Water Supply Network Asset Management Plan
- Sewerage Network Asset Management Plan
- Buildings Asset Management Plan, incorporating Other Structures
- Stormwater Drainage Asset Management Plan
- Waste Asset Management Plan
- Open Spaces Asset Management Plan

Asset Maintenance Plans need to be considered for some assets group due to the complexity of maintaining these assets class. The Maintenances Plan will include maintenance methodology, frequency and work flow. This plan will provide clarity and transparency to how these assets are maintained, steps and procedures council has implemented and developing to retain good condition of the assets, meeting community Service Level and Industry standards.

- Sewerage and Water Asset Maintenance Plan
- Transport Asset Maintenance Plan
- Open Spaces Asset Maintenance Plan

WATER SUPPLY, WASTE WATER SUPPLY AND WASTE AMPS

There are specific asset management planning requirements for water supply, sewerage and waste management. They require compliance with the *Best-Practice Management of Water Supply and Sewerage Guidelines 2007* and the *NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets*. These requirements include the need to prepare an Asset Register, a 20 to 30-year Operation Plan, Maintenance Plan and a Capital Works Plan which identifies the required renewals, works for improved levels of service and works for serving new growth. Councils must continue to meet these asset management planning requirements for their water supply and sewerage infrastructure. Waste assets also meet this 30 year requirement.

Our Asset Management System

In order to capture the necessary data to create accurate and meaningful Asset Management Plans, Council requires an up to date asset management system which collects the following information:

- Asset registers
- Asset ownership/custodianship
- Asset condition assessments
- Asset attributes (physical and lifecycle)
- Asset maintenance and management systems
- Strategic planning capabilities
- Predictive modelling
- Deterioration modelling
- Lifecycle costing

Council currently uses an integrated asset management system that captures and provides some of the above data which require processing and analysing manually in order to complete fair value financial modelling as required on a 5-year cyclical rotation for each major asset category. This asset management system captures actual data for capital works which is then used to model Asset Management Plans and long term financial asset planning. The ability to capture operating costs against each asset will be developed over the next couple of years based on resources and prioritization of corporate projects. The current data analysing processes are manual, cumbersome and time consuming. Based on the current demand for running data analysis more frequently for various purposes, incorporating BIA (Business Intelligence and Analytics) along with other necessary modules within the asset management system will improve efficiency and allow users to navigate through the data in a structured process to create financial modelling, lifecycle cost, and run various analysis using correct data sets.

Measuring Asset Expenditure

An understanding of expenditure trends is fundamental to managing assets. Assets that are allowed to deteriorate beyond their optimum renewal period will start requiring high levels of reactive maintenance in order to control risk and correctly separating recurrent or reactive maintenance costs from asset renewals enables better asset planning and the reduction of lifecycle costs.

It is also important to differentiate between capital expenditure on the existing asset stock and capital expenditure on expanding the asset stock.

Expenditure on public works assets may be split into four categories, maintenance, capital renewal, capital upgrade and capital expansion.

MAINTENANCE

Expenditure on an asset, which maintains the asset in use but does not increase its service potential or life.

CAPITAL RENEWAL

Expenditure on renewing an existing asset or a portion of an infrastructure network, which increases the service potential or extends the life.

CAPITAL UPGRADE

Expenditure on upgrading the standard of an existing asset or infrastructure network to provide a higher level of service to users, e.g. widening the pavement and sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, building a grandstand at a sporting facility, replacing an existing bridge with one having a greater carrying capacity, replacing a chain link fence with a wrought iron fence.

CAPITAL EXPANSION

Expenditure on extending an infrastructure network, at the same standard currently enjoyed by existing residents, to a new group of users, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb.

Critical Assets and Risk Management Strategies

Management of risk and liability through a risk assessment process is fundamental in assisting Council to allocate resources and meet community expectancies.

CRITICAL ASSETS

Critical assets are recognised and addressed in individual Asset Management plan. For example in Transport Asset Management Plan will contain all the transport critical assets such as roads, bridges, culverts, footpaths, causeways, guardrails, kerbs and gutters with condition rating of 4 (renewal required) and 5 (urgent renewal/update required) which are currently monitored, maintained and part of current and future renewal program.

RISK MANAGEMENT STRATEGIES

Council aims to improve its risk management processes in regard to Asset Management and will incorporate information from the Asset Management System with the following risk management strategies to develop an ongoing risk management plan within the next 24 months.

The main elements of risk management as defined in AS/NZS 4360 are:

- Establish Risk Management Context
- Determine Risk Evaluation Criteria
- Identify Risks
- Analyse Risks
- Evaluate Risks
- Treat Risks (or Manage Risks)
- Monitor and Review

ESTABLISH THE CONTEXT

The risk management context is established in three areas, strategic, organisational and risk management. The Strategic Context involves identifying:

- the relationships between the council and the environment
- strengths, weaknesses, opportunities and threats (SWOTs), including the financial, operational, competitive, political (public perception/image) social and legal aspects of the council's functions
- the stakeholders

The purpose of the strategic context is to identify and determine the crucial elements that might support or impair the council's ability to manage the risks associated with its operation.

ORGANISATIONAL CONTEXT

The purpose of this stage is to develop an understanding of the council and its capabilities, as well as its goals and objectives and the strategies that are in place to achieve them.

RISK MANAGEMENT CONTEXT

The purpose of this stage is to develop the criteria against which risk is to be assessed. This may depend on operational, technical, financial, legal, social, humanitarian, or other criteria. Risk evaluation criteria can include:

- financial loss of up to a certain amount
- injury to a person requiring hospitalisation
- number of incidents not to exceed a certain amount

RISK IDENTIFICATION

Risk identification seeks to identify the risks and elements at risk that may need to be managed. A well structured systematic process is crucial, because a potential risk not identified at this stage is excluded from further analysis. All risks should be identified, whether or not they are under the control of the council.

RISK IDENTIFICATION (CONT'D)

The risks are identified in three stages:

- **What can happen?** The aim is to generate a comprehensive list of events which might affect each element of the council's service delivery
- **How and why it can happen.** It is necessary to consider possible causes and scenarios. There are many ways an event can be initiated. It is important that no significant causes are omitted
- **Are risks credible?** An assessment of credibility of all risk is undertaken to ensure that credible risks receive proper and due consideration

Risks should be defined as a statement of risk. For example: There is a risk of injury to people from tripping on a paved footpath.

RISK ANALYSIS

Risk is analysed by combining estimates of likelihood and consequences in the context of existing control measures. The objective of a risk analysis is to separate the minor acceptable risks from the major risks and to provide data to assist in assessment and treatment of risk. The level of risk is determined by considering two aspects against existing controls:

- how likely it is that things may happen (likelihood, frequency of probability)
- the possible consequences (impact or magnitude of the effect) if they do occur

The risk analysis process is to:

- identify the existing management controls, technical systems and procedures to control risk
- evaluate the likelihood of events occurring and their consequences in the context of these existing controls
- combine the evaluation of likelihood and consequences to produce a level of risk

RISK EVALUATION

Risk evaluation involves comparing the level of risk found during the analysis process with previously established risk criteria and deciding whether the risks can be accepted. Options should be evaluated on the basis of the extent of risk reduction and the extent of benefits or opportunities created, taking into account the criteria developed in Risk Context. In general, the adverse impact of risks should be made as low as reasonably practicable irrespective of any absolute criteria. A combination of options may give the optimum risk reduction outcome. If the risks fall into the acceptable or low categories, they may be accepted with minimal further treatment. Acceptable or low risks should be monitored and periodically reviewed to ensure they remain acceptable. If the risks do not fall into the acceptable or low category, they should be managed using one of the options below. The output of risk evaluation is a prioritised list of risks for further action.

		Potential consequence				Likelihood				
						A	B	C	D	E
						RARE	UNLIKELY	POSSIBLE	LIKELY	ALMOST CERTAIN
No.	Key Word	Health & Safety	Environmental	Financial	Public Image	Requires unusual chain of events	Not expected to occur	May occur	Will occur occasionally	Expected to occur
5	CATASTROPHIC	Fatality or work related fatal disease	Detrimental impact to environment or community. High level prosecution	Greater than $500,000	International media coverage	Moderate 13	High 19	Critical 22	Critical 24	Critical 25
4	SEVERE	Serious permanent injury or illness	Long term negative impact. Low level prosecution	No more than $500,000	National media coverage	Moderate	Moderate 12	High 18	Critical 21	Critical 23
3	SERIOUS	Lost time injury or illness	Serious but reversible impact media enquiry	No more than $100,000	State media coverage	Low	Moderate 9	Moderate 11	High 17	Critical 20
2	SIGNIFICANT	Medically treated injury or illness	On-site incident promptly contained requiring external clean up aid	No more than $25,000	Local media coverage	Low	Low 5	Moderate 8	High 15	High 16
1	MINOR	First Aid treated injury or illness	On-site incident immediately contained and cleaned up	No more than $5,000	Public complaint	Low	Low 2	Low 3	Moderate 7	High 14

STATUS	ACTION REQUIRED	NOTIFY	MONITOR
CRITICAL	Do not commence activity. Immediate senior management action required	General Manager (Notified by Group Mgr)	NA
HIGH	Immediate action required to reduce risk. Authorisation required before commencing activity.	Group Manager (Notified by Operational Mgr)	Weekly
MODERATE	Risk reduction required to as low as reasonable practicable before commencing task	Operational Manager	Monthly
LOW	Follow routine procedures and monitor risk.	Team Leader	Annually

MANAGE THE RISKS

Risks need to be managed appropriately to the significance of the risk and importance of the affected item/asset to the region. As a general guide:

- low levels of risk can be accepted and additional action may not be needed; these risks should be monitored
- major or significant levels of risk should be managed with actions to reduce or eliminate the risk
- high levels of risk require close management and the preparation of a formal plan to manage the risks

Options for managing risk are shown below. The optimum solution may involve a combination of options.

- Avoid the risk by deciding not to proceed with the activity that would incur the risk, or choose an alternative course of action that achieves the same outcome
- Reduce the level of risk by reducing the likelihood of occurrence or the consequences, or both
  - the likelihood may be reduced through management controls, organisational or other arrangements which reduce the frequency of, or opportunity for errors, such as alternative procedures, quality assurance, testing, training, supervision, review, documented policy and procedures, research and development
  - the consequences may be reduced by ensuring that management or other controls, or physical barriers, are in place to minimise any adverse consequences, such as contingency planning, contract conditions or other arrangements.
- Transfer the risk by shifting the responsibility to another party (such as an insurer), who ultimately bears the consequences if the event occurs. Risks should be allocated to the party, which can exercise the most effective control over those risks.
- Accept and retain the risks within the organisation where they cannot be avoided, reduced or transferred, or where the cost to avoid or transfer the risk is not justified, usually because the risk is acceptable or low. Risks can be retained by default, i.e. Where there is a failure to identify and/or appropriately transfer or otherwise manage risks.
- The cost of managing risks needs to be commensurate with the benefits obtained, the significance of the event and the risks involved

RISK MANAGEMENT PLANS

Plans should document how the chosen options are to be implemented. The plan should identify responsibilities, schedules, the expected outcomes of treatment, budgeting, performance measures and the review process to be set in place.

The successful implementation of the risk management plan requires an effective management system which specifies the methods chosen, assigns responsibilities and individual accountabilities for actions and monitors them against specified criteria.

MONITORING AND REVIEW

Monitoring and review is an essential and integral step in the process of managing risk. It is necessary to monitor risks, the effectiveness of any plans, strategies and management systems that have been established to control implementation of risk management actions. Risks need to be monitored periodically to ensure changing circumstances do not alter the risk priorities.

RISK MANAGEMENT PROCESS IMPROVEMENT

The process improvement covers 3 steps and identifies further issues to be addressed.

- Improve risk management process and link to assets
- Link work history for scheduled and reactive work to assets
- Monitor costs on important scheduled and reactive jobs

Definitions

Asset Class	Grouping of like asset categories, e.g. all pavement, seal, kerb and gutter are all part of the asset class of roads.
Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.
Business intelligence and analytics	Integrate, share and centrally manage data across the entire business. Eliminate information silos and allow data to be queried from enterprise applications, without the complexity of traditional business intelligence solutions.
Current Replacement Cost	The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.
Depreciation	A measure of the average annual consumption of service potential over the life of the asset. Depreciation is not a measure of required expenditure in any given year.
Fair Value	The amount for which an asset could be exchanged or liability settled, between knowledgeable, willing parties, in an arm's length transaction, normally determined by reference to market or comparable prices. Generally, there is no market for Council's infrastructure assets and Fair Value is current replacement cost less accumulated depreciation.
Infrastructure Assets	These are typically large, interconnected networks of or portfolios of composite assets such as roads, drainage and recreational facilities. They are generally comprised of components and sub-components that are usually renewed or replaced individually to continue to provide the required level of service from the network. These assets are generally long lived, are fixed in place and often have no market value.
Level of Service	The defined service quality for a particular Primary Service (e.g. roads, child care services) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost (e.g. the number of accidents on local roads).
Maintenance and Renewal Gap	Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (e.g. 5, 10 and 15 years).
Materiality	The concept of materiality referred to in accounting standards has been amplified in these guidelines. An asset is material if its omission would result in misleading the reader of the financial report. The convention of an asset being material if greater than 10 – 15 % of asset value is only partly useful for road assets because of historic variability in practice in measuring value. The overriding principle is that financial reports present a true and fair picture of the financial position of the council.
Operating Expenditure	Expenditure on providing a service, which is continuously required including staff salaries and wages, plant hire, materials, power, fuel, accommodation and equipment rental, on-costs and overheads. Operating expenditure excludes maintenance and depreciation.
Remaining Life	The time remaining until an asset ceases to provide the required service level or economic usefulness. Remaining life is economic life minus age.
Risk Management	The allocation of probability and consequence to an undesirable event and subsequent actions taken to control or mitigate that probability and/or consequence.
Service Level Target	Target set for level of service to be achieved in the next reporting period (e.g. to retain, increase or reduce the number of accidents on local roads).
Useful Life	The period from the acquisition of an asset to the time when the asset, while physically able to provide a service, ceases to be the lowest cost alternative to satisfy a particular level of service. The economic life is at the maximum when equal to the physical life, however obsolescence will often ensure that the economic life is less than the physical life.

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