



ASSET MANAGEMENT PLAN STRATEGY 2022

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Related documents	Asset Management Policy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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2 Introduction

The Asset Management Strategy (AMS) is designed to provide a plan to manage Councils physical infrastructure assets over the long term 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 is included as part of the Council Resourcing Strategy as required by the Local Government Integrated Planning and Reporting framework.

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

The Council Resourcing Strategy consists of three components:

- Long Term Financial Planning
- Workforce Management Planning
- Asset Management Planning

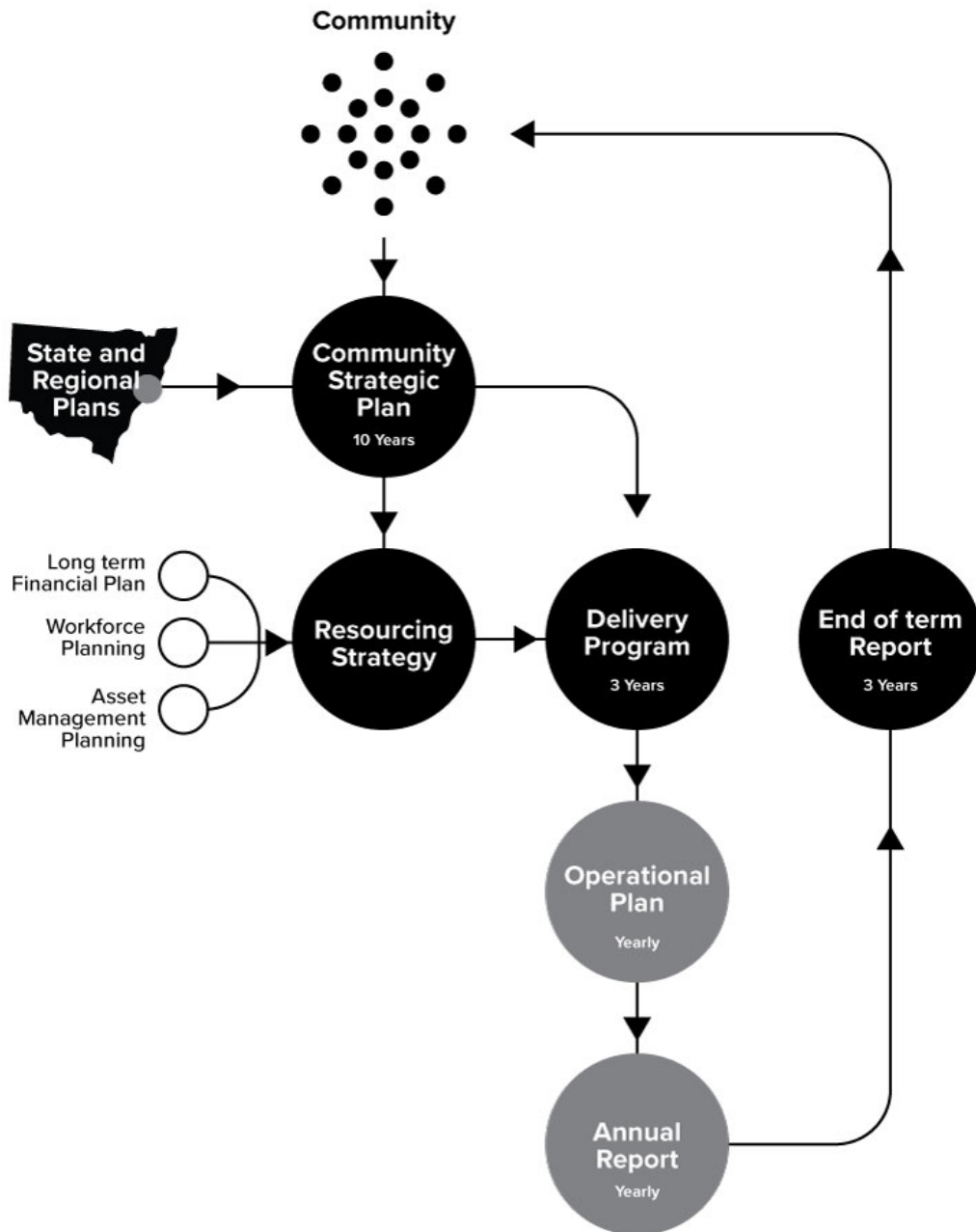
2.1 Our Integrated Planning and Reporting Framework

The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



2.2 Resourcing Strategy

Asset Management Strategy

The Asset Management Strategy identifies assets that are critical to the Council’s operations and outlines risk management strategies for these assets. The strategy and plans also include specific actions required to improve the Councils asset management capability and projected resource requirements and timeframes.

Long Term Financial Plan

The Long Term Financial Plan projects financial forecasts for the Council for at least ten years, and is updated annually as part of the development of the Operational Plan. The Long Term Financial Plan is used by the

Council to inform its decision making during the finalisation of the Community Strategic Plan and the development of the Delivery Program.

Workforce Management Plan

Council's Workforce Management Planning considers what people with what skills experience and expertise are required to implement the Delivery Program and achieve the Community Priorities. It provides an opportunity every 4 years to plan adjustments to the workforce to meet changing priorities and take into account new technologies.

2.3 Asset Management Process

Objective

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 Strategic Plan 2032.

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.

What is Asset Management?

Asset management is a process of logic used to guide the planning, acquisition, operation and maintenance, renewal and disposal of assets. Its objective is to maximize asset service-delivery-potential and manage related risks and costs over the entire life of assets.

Asset management ensures that Council's assets are capable of providing services, of an agreed quality, in a sustainable manner, for present and future generations.

The key elements of successful infrastructure asset management are:

- ensuring appropriate maintenance standards are used
- making the most out of assets (service potential optimized)
- applying fully life cycle costs
- pursuing reduction or optimization of integration of those assets not achieving the most productive outcome
- defining clear responsibilities for assets, accountability and reporting and recognizing that infrastructure assets must support Council in the delivery of services to the community.

A formal approach to the management of infrastructure assets is essential in order to provide services in the most cost-effective manner, and to demonstrate this to customers and other stakeholders.

Why is Asset Management Important to Council?

Asset management delivers benefits that are realized in the areas of improved accountability, sustainable service delivery, risk reduction and improved financial management and forecasting. Specific benefits can include:

- More informed decision-making
- Improved efficiency and reduction of limited capital funds and asset operation costs.

- Ability to plan for present and future generations.
- Improved long-term financial forecasting and management.

Role of Local Government

In accordance with the Local Government Act 1993 and Local Government (General) Regulations 2005, Council has a wide range of objectives and functions which relate to the provision and management of infrastructure. The Act provides the legal framework to assist Councils in providing an efficient and effective infrastructure system.

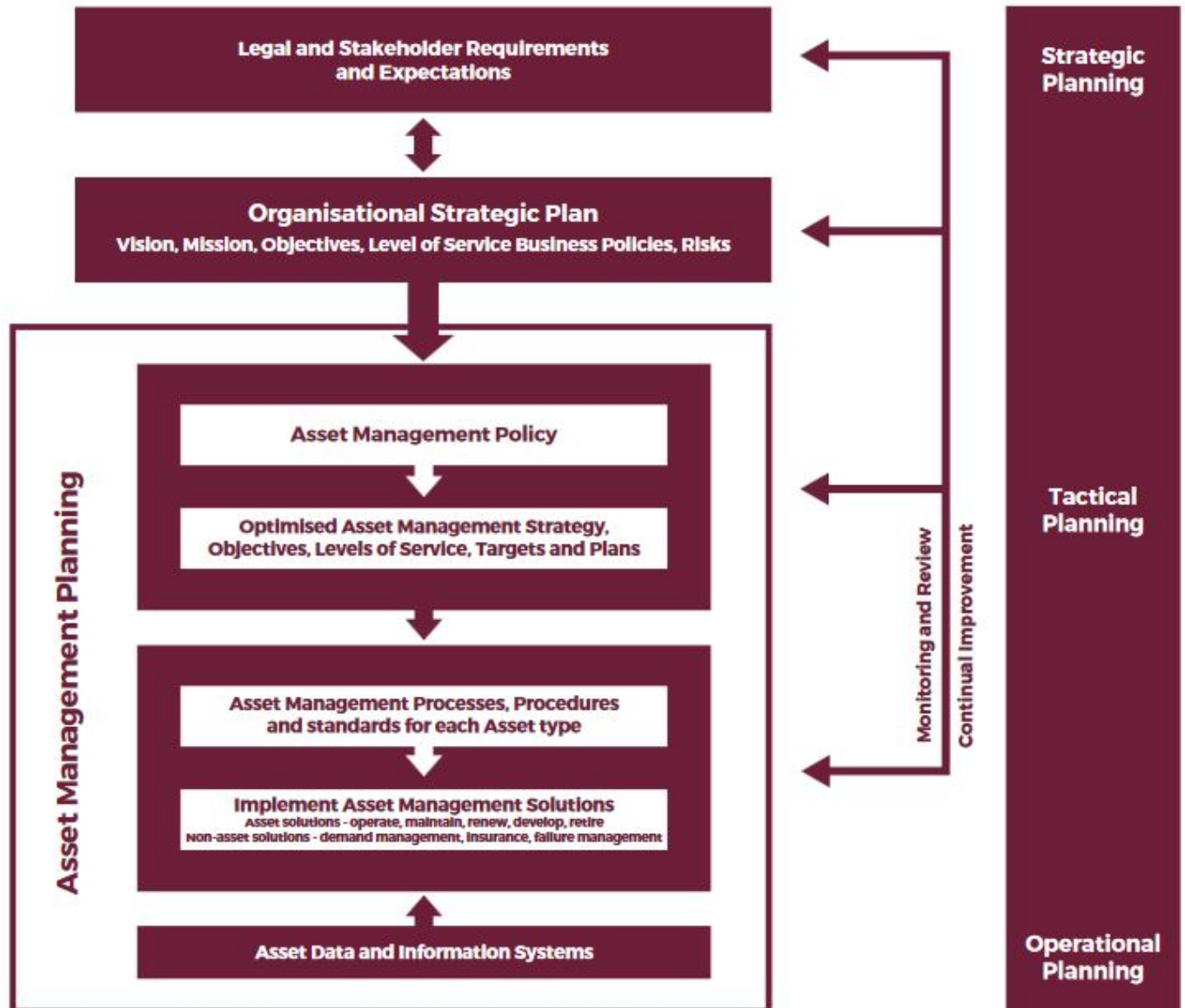
The provision of infrastructure is considered to be one of the most important roles of Council as it strives to provide a safe and functional environment for its community. Ensuring that this infrastructure is managed in an effective and efficient manner and continues to meet the needs of our community in both the short and long term is a key issue for Council.

Strategic Planning Process

Asset management planning aims to optimise services to the community at a cost and risk that is acceptable. Planning starts with Council's strategic plans, vision, mission, goals and objectives and translates these into an asset management policy and strategy framework, asset management plan and operational plans. The framework showing asset management's strategic role in delivering Council's objective and community expectations is shown in Figure 1.

Underpinning asset management decision making and the monitoring and review process is asset data and asset information systems. The identification, assessment and control of risks is a key focus at all levels of planning, with the results from this process providing input into the asset management strategy, policies, objectives, processes, plans, controls and resourcing.

Figure 1.



2.4 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 Upper Hunter Shire Council

Council’s endorsed Asset Management Policy is attached as Appendix 1 and includes the following key principles it will consider when making any decisions impacting on infrastructure assets:

Level of Service

- Implementing a systematic approach to the management of its assets and ensuring that appropriate asset management practices are applied across all areas of the organisation.

Asset Management Plan Strategy

- provide quality infrastructure assets that support service levels that are appropriate, accessible, responsive and sustainable to the community.
- consult with the community and key stakeholders in determining Levels of Service and asset service standards.

Demand Forecasting

Develop sustainable and effectual management strategies for the long term including demand analysis covering changes in demographics.

Life Cycle Planning

implementing a life cycle approach to asset management whereby the costs and benefits of assets are considered over the assets life.

- developing and regularly reviewing an Asset Management Strategy and Asset Management Plan which will detail the approach taken in managing assets and which will facilitate the continuous improvement of asset management practices.
- provide the necessary resources and operational capabilities to adequately manage assets and to comply with legislative requirements.
- setting the priority for asset management in descending order as follows:
 1. Asset Renewal
 2. Asset Upgrade
 3. Asset Expansion

Risk Management

- Resources and priorities for asset management practices will include a risk assessment.

Financial Management

- the amount of renewal funding required to maintain minimum service levels will be reflected in Council's 10 year Long Term Financial Plan.
- the provision of funding for new projects will only be considered after renewal requirements are identified and considered.

This Asset Management Strategy complements the policy by detailing a set of strategies and actions aimed at improving asset management performance over time. In turn, it is supplemented by detailed individual Asset Management Plans.

3 Community Service Delivery

Connected Community

Support the community by providing safe programs, services and facilities that promote wellbeing and a connected, healthy and happy community – a great place for families.

Protected Environment

Protect the natural environment and plan for a sustainable future.

Thriving Economy

A sustainable and prosperous economy delivering lifestyle benefits to the community through employment and sustainable economic growth whilst focusing on the growth, enhancement and maintaining of Council's infrastructure assets including community facilities, open spaces and road networks to meet the needs of the current and future generations of the Shire.

Quality Infrastructure

Maintaining and developing our infrastructure network to meet the ongoing needs of our population and provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.

Responsible Governance

Provide Community leadership through strong governance and advocacy on behalf of our community so Council can effectively meet the needs and expectations of our people.

The Community Strategic Plan 2032 details the service outcomes and objectives, as derived from the community consultation process, of Council. The service areas that the community identified as important were grouped around the following themes:

Council utilises infrastructure assets to provide services to the community through:

- Roads, bridges and footpaths to provide reliable and safe transport services.
- Stormwater drainage to protect properties and roads from flooding and control water runoff quality.
- Sporting grounds and venues, parks and landscape assets to provide recreation services and enhance and protect the built and natural environment.
- Water and Sewerage services to provide essential reliable and safe services for towns and villages; and
- Community Buildings to 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 infrastructure assets represent a vast investment built up over many generations, which in itself presents a significant challenge, as many of the assets were constructed or acquired many decades ago and as such are approaching the end of their useful lives. The efficient management of these assets is vital in maintaining safe, reliable and efficient services that help achieve the strategic priorities and goals of Council. Failure to adequately plan for the replacement of existing assets and the development of new assets will result in Council not having the assets to meet the needs of the community, now or into the future.

The Asset Management Strategy is a procedure to determine what the infrastructure asset requirements are needed 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 plan and asset improvement plan 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.

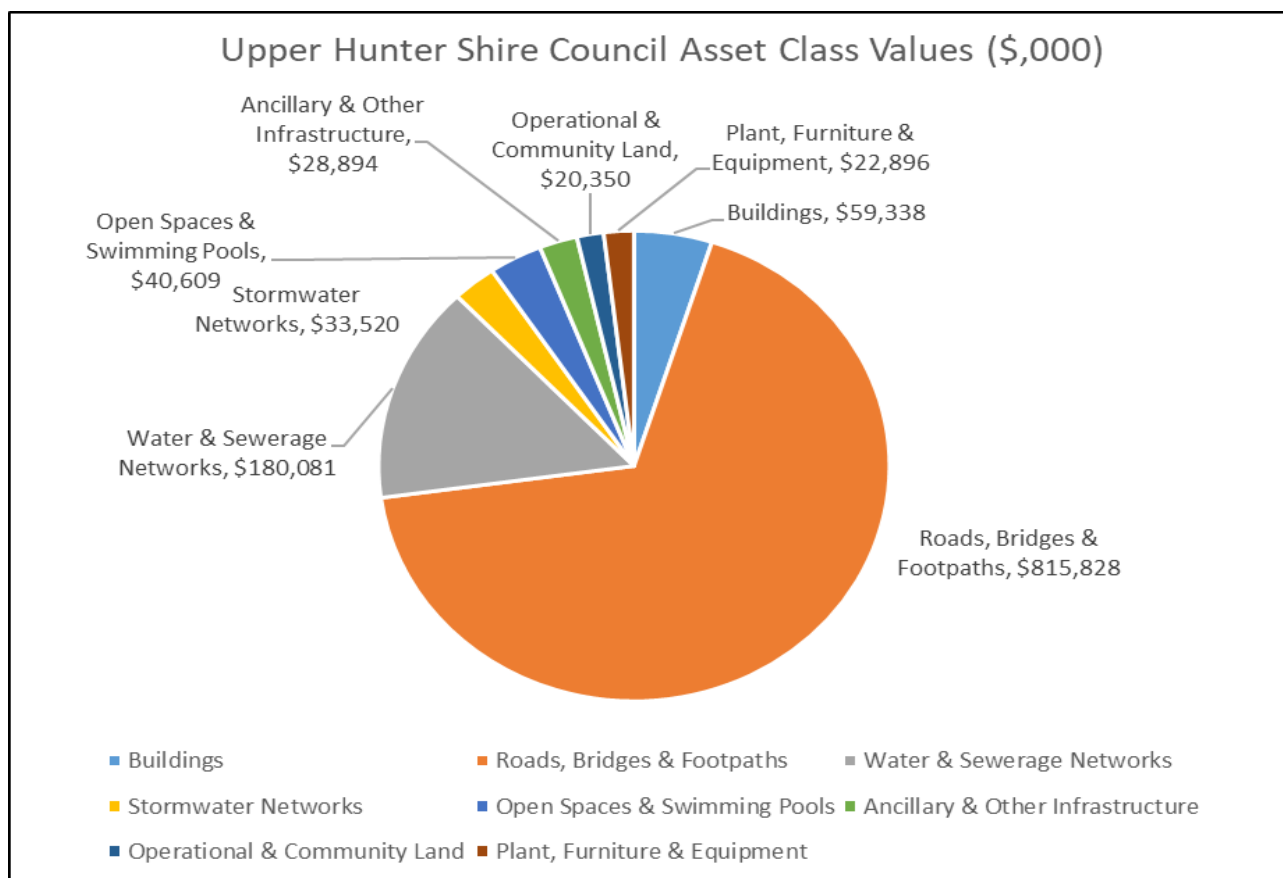
Asset Management Plan Strategy

In summary the strategy will assist Council to:

- develop a set of actions aimed at improved asset management practices across the organization through:
 - improved stewardship and accountability of assets;
 - improved communication and relationships with service users;
 - improved risk management
 - more effective utilization of assets; and
 - improved financial effectiveness.
- ensure that asset management practices are applied consistently across the organization and supported by a continuous improvement plan so that Council may more effectively management community assets now and into the future.
- more effectively plan and fund its works programs.
- competently deliver services to the community.
- maintain its assets to acceptable standards.

Asset Values & Conditions

At 30 June 2021 the estimated gross replacement value of Council infrastructure assets was over \$1.2 billion as represented below:



Council Assets

Council's asset types are summarised below and are categorised by the Community Strategic Plan 2032 themes which illustrates how these assets help meet the objectives as set out in the Plan:

Connected Community

- Street scaping
- Community Buildings
- Swimming Pools
- Cemetery Assets
- Library Books
- Parks and Gardens
- Sportsgrounds
- Showgrounds
- Community Service and Program Assets
- Animal Control Facilities
- Public Amenities

Protected Environment

- Tourism Buildings and Signage
- Saleyards
- Aerodrome
- Investment property and development
- Council's Roads and Bridges
- Footpaths and Cycleways
- Communications Assets

Quality Infrastructure

- Water Supply Infrastructure
- Waste Water Infrastructure
- Solid Waste Management Assets
- Stormwater Infrastructure
- Noxious Weeds Assets
- Environment education facilities
- Sustainable Energy Assets
- Other Community Land

Responsible Governance

- Corporate Buildings
- Plant and Machinery

3.1 Asset Classes Graphic

Council assesses the condition of its infrastructure asset classes on an annual basis and includes these assessments into the Annual Financial Statements and Special Schedules.

From information included in these reports ratios are calculated to provide an assessment as the state of Council major infrastructure against benchmarks set by the Office of Local Government. These ratios provide Council with trend information to recognise where possible gaps exist in providing satisfactory asset infrastructure to meet Community service expectations.

Listed below is the assessment of infrastructure assets (excluding Land and Plant & equipment) based on the 30 June 2021 financial reports.



ASSET CLASS	ESTIMATED COST TO BRING TO THE AGREED LEVEL OF SERVICE SET BY COUNCIL	2020/21 REQUIRED MAINTENANCE \$ '000	2020/21 ACTUAL MAINTENANCE \$ '000	NET CARRYING AMOUNT \$ '000	GROSS REPLACEMENT COST (GRC) \$ '000	ASSETS IN CONDITION AS A PERCENTAGE OF GROSS REPLACEMENT COST				
						1	2	3	4	5
Buildings	765	556	631	40,102	59,338	53.3%	45.0%	1.8%	0.0%	0.0%
Other Structures	100	122	119	2,252	2,660	28.8%	60.0%	2.0%	1.0%	0.0%
Roads	6,650	4,240	4,713	720,078	815,828	61.4%	29.5%	5.1%	1.3%	2.7%
Water Supply Network	1,325	631	1,093	64,270	104,963	27.8%	31.4%	27.2%	13.6%	0.0%
Sewerage Network	950	552	851	37,777	75,118	10.0%	11.3%	67.3%	11.4%	0.0%
Stormwater Drainage	775	185	78	24,552	33,520	43.5%	30.8%	20.5%	3.5%	1.6%
Open Spaces and Swimming Pools	1,750	1,283	1,794	26,133	40,609	26.0%	30.5%	31.4%	11.8%	0.3%
Ancillary Infrastructure	400	591	346	23,579	28,894	31.8%	63.2%	29.0%	6.1%	0.3%
TOTALS	12,715	8,160	9,625	938,743	1,160,930	52.9%	29.3%	12.4%	3.5%	2.0%

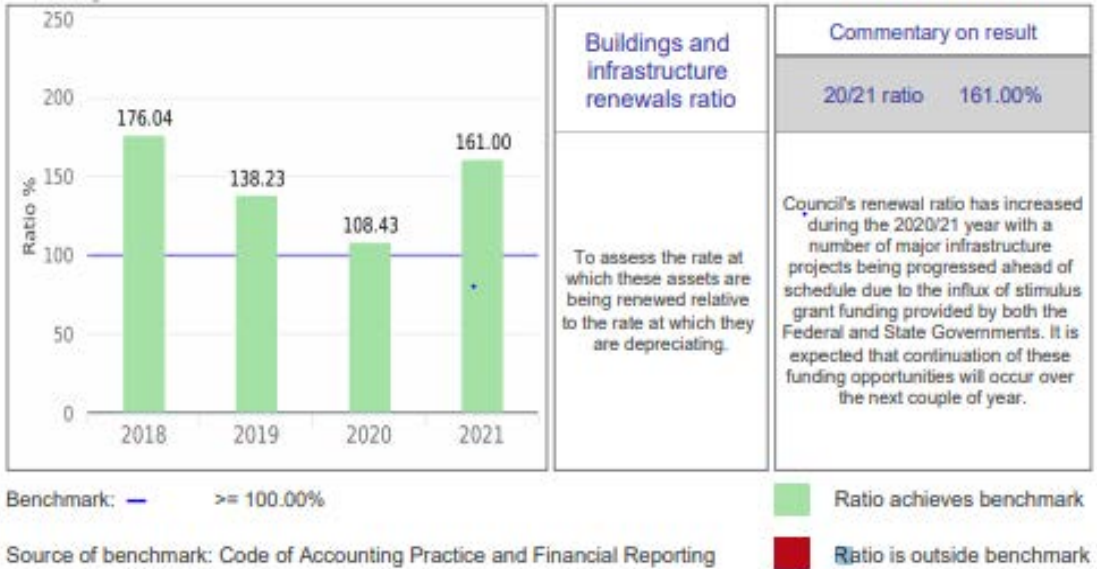
Notes: Required maintenance is the amount identified in Council’s asset management plans. Infrastructure asset condition assessment ‘key’

- 1 **Excellent** No work required (normal maintenance)
- 2 **Good** Only minor maintenance work required
- 3 **Average** Maintenance work required
- 4 **Poor** Renewal required
- 5 **Very poor** Urgent renewal/upgrading required

Special Schedule 7 - Report on Infrastructure Assets as at 30 June 2021

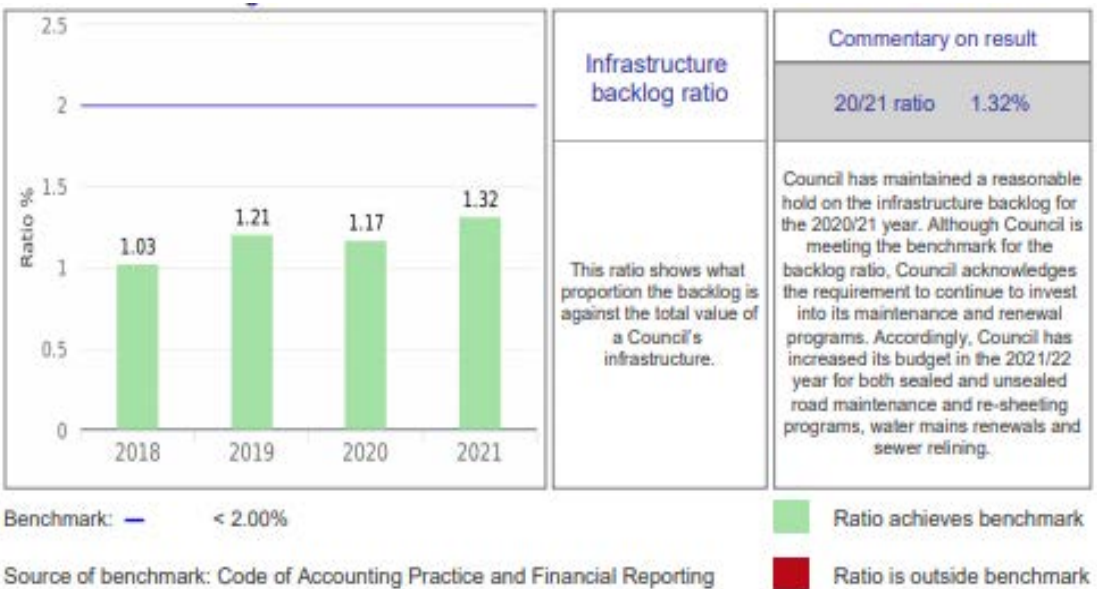
Purpose of asset renewals ratio

To assess the rate at which these assets are being renewed relative to the rate at which they are depreciating.



Purpose of infrastructure backlog ratio

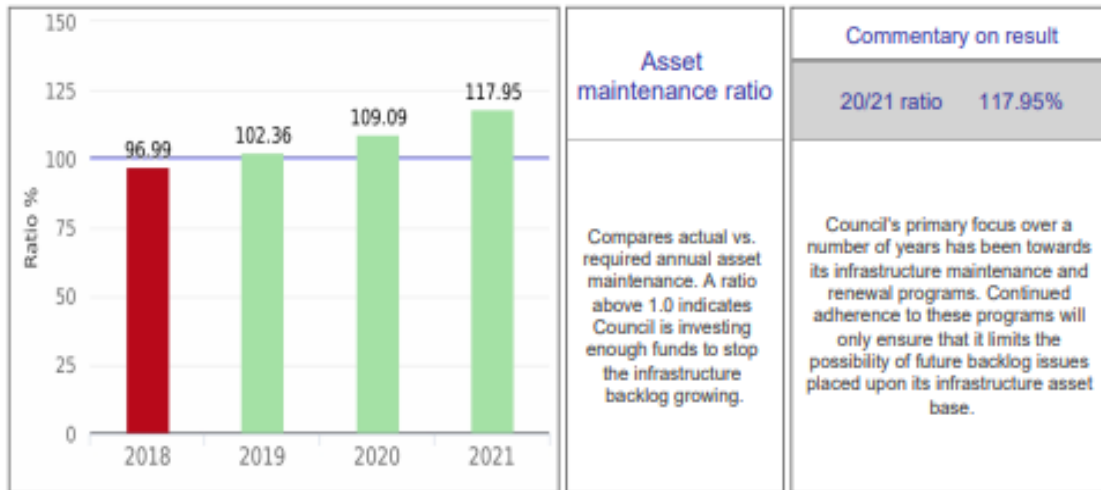
This ratio shows what proportion the backlog is against the total value of a Council's infrastructure.



Asset Management Plan Strategy

Purpose of asset maintenance ratio

Compares actual vs. required annual asset maintenance. A ratio above 1.0 indicates Council is investing enough funds to stop the infrastructure backlog growing.



Asset maintenance ratio

Compares actual vs. required annual asset maintenance. A ratio above 1.0 indicates Council is investing enough funds to stop the infrastructure backlog growing.

Commentary on result

20/21 ratio 117.95%

Council's primary focus over a number of years has been towards its infrastructure maintenance and renewal programs. Continued adherence to these programs will only ensure that it limits the possibility of future backlog issues placed upon its infrastructure asset base.

Benchmark: — > 100.00%

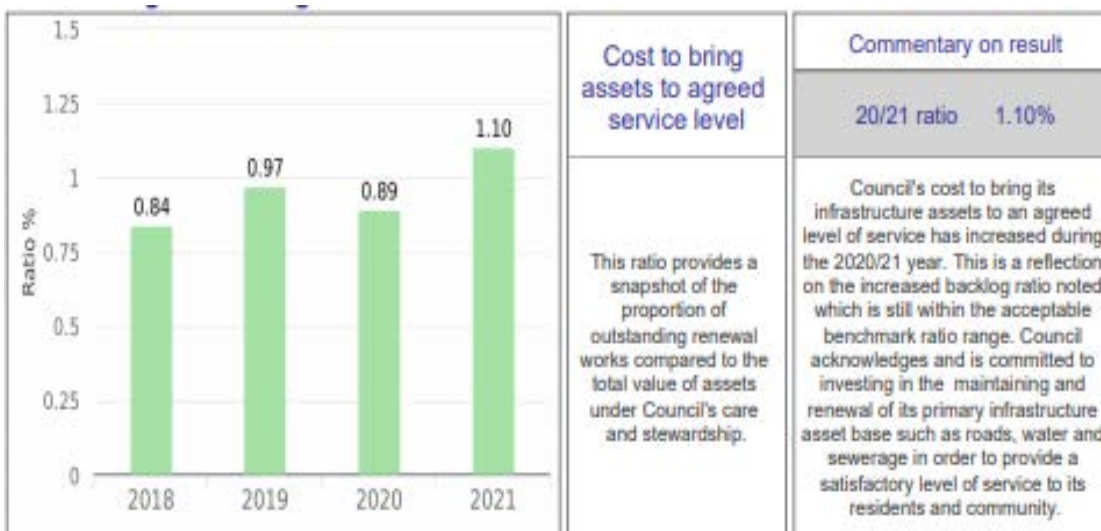
Ratio achieves benchmark

Source of benchmark: Code of Accounting Practice and Financial Reporting

Ratio is outside benchmark

Purpose of cost to bring assets to agreed service level ratio

This ratio provides a snapshot of the proportion of outstanding renewal works compared to the total value of assets under Council's care and stewardship.



Cost to bring assets to agreed service level

This ratio provides a snapshot of the proportion of outstanding renewal works compared to the total value of assets under Council's care and stewardship.

Commentary on result

20/21 ratio 1.10%

Council's cost to bring its infrastructure assets to an agreed level of service has increased during the 2020/21 year. This is a reflection on the increased backlog ratio noted, which is still within the acceptable benchmark ratio range. Council acknowledges and is committed to investing in the maintaining and renewal of its primary infrastructure asset base such as roads, water and sewerage in order to provide a satisfactory level of service to its residents and community.

4 Targets of Council Asset Management

asset management, information on asset inventory, renewal costs, asset life, intervention criteria and asset condition have been documented and consolidated into detailed spreadsheets, which enables further analysis to determine the current and future infrastructure funding gap levels.

The identification of the renewal gap will allow Council to predict levels of funding required to be spent for the long term on maintenance of our assets. This information will assist in developing and reviewing Council's long term financial plan.

The total replacement cost of Council's major infrastructure assets is estimated to be \$1.2 billion with an estimated long term average renewal requirement per annum of approximately \$10 million.

The imbalance between the rates of renewal and asset consumption has developed because renewal has a 'delay function'; most of Council's assets have been built by developers or with the assistance of State and Federal funding over the last 30, 40 or more years. Renewal infrastructure cost can be somewhat lumpy and 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.

As apparent from the internal gap analysis Council will need extra financial resources, in addition to s94 funding, to deliver its current levels of service.

Options to bridge this renewal funding gap are:

- Increase Council's revenue base
- Seek additional project funding through special grants or long term loans
- Phasing in funding over next ten years for replacement of assets
- Focussing expenditure on essential and high priority works
- Asset rationalisation
- Increasing the effectiveness and utilisation of the existing asset base
- Deferring works with the recognition that this is not sustainable in the medium term
- Comprehensive review of service levels across all asset categories.
- Limit expansion of the Asset base so as not to widen the gap or prolong replacements beyond economic life.

Only sound long term renewal forecasting will let Council know where it stands in preparing for the renewal challenge. 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.

5 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; and
- Lifecycle costing.

Council currently uses an integrated asset management system that captures and provides the above data 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 and operating costs, which is then used to model Asset Management Plans and long term financial asset planning.

In order to improve the integrity of data, assist in managing data and to assist Management to make informed decisions regarding maintenance practices and to more efficiently determine Capital Works programs Council is currently implementing a computer based asset management system to store and analyse the significant quantities of asset data collected for asset management purposes.

Council's objectives in selecting this asset management system were:

- to have a central repository for all asset data
- to undertake lifecycle management of all Council asset categories
- to facilitate an asset management culture
- to reduce the overall costs and risks associated with Council assets
- to implement a system that is flexible enough to accommodate the variations in the management of the various asset categories
- to provide the ability to add advanced asset management functionality as the Council matures with respect to asset management.
- to implement an integrated system that will support the concept of once only data entry and be easily interfaced with other corporate applications.

Once fully implemented, the asset system will be supplemented with other integrated systems and standalone modelling tools such as GIS mapping software.

For the year ended 30 June 2017 Council utilised the "Confirm" software asset data base system to record the Water and Sewerage network whilst utilising Excel spreadsheets for the following assets:

- Roads (sealed and unsealed)
- Bridges and major (including major culverts)
- Footpaths and Cycleways

- Stormwater Drainage
- Buildings
- Open Spaces
- Other Ancillary infrastructure

6 Asset Management Plans

Asset Management Plans (AMPs) provide a long term assessment of the asset activities and actions required to deliver the defined level of service in the most cost effective manner to the community.

The objective of the AMP is to outline the particular actions and resources required to provide a Council has developed Asset Management Plans for:

- Road Infrastructure (road pavement, kerb and channel, footpaths and cycleways)
- Bridges
- Stormwater Drainage
- Buildings
- Open Spaces
- Other Infrastructure (swimming pools, saleyards and aerodrome)
- Water Supply
- Sewerage Services

In general these Asset Management Plans:

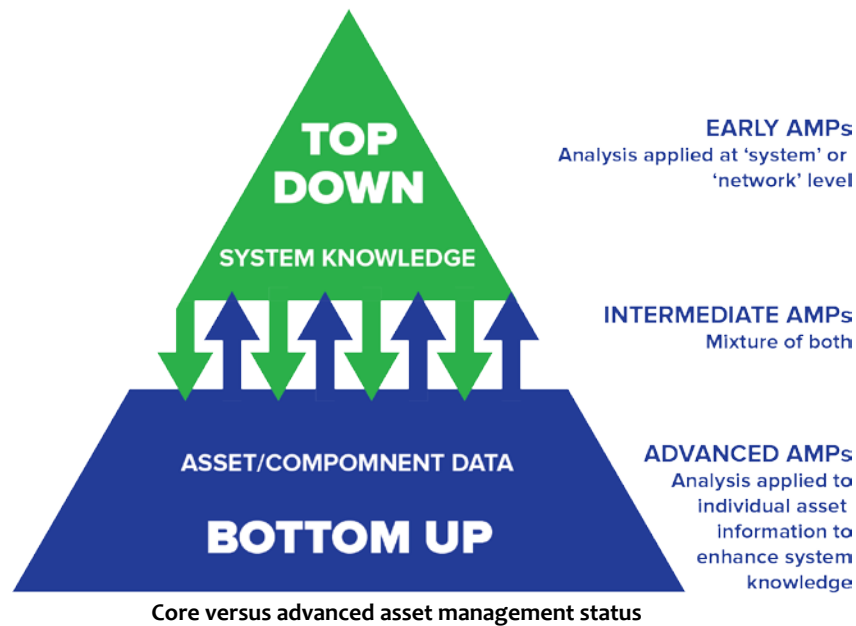
- describe the asset (physical, financial)
- describe the objective/purpose of the asset
- define the current levels of service
- describe future demand requirements for service delivery
- describe the risks associated with the asset
- define the intended time frame (life cycle) of the asset or key components
- include financial information
- recognize the decline in service potential
- state assumptions and confidence levels
- outline an improvement program
- identify key performance measures
- have the firm commitment of the organisation
- reviewed regularly

In order to implement asset management effectively it is appropriate to produce asset management plans and recognize the deficiencies these plans have over time. Council's plans have been prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual.

They meet the minimum legislative and organizational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Asset Management Plan Strategy

From here the necessary activities to enhance the plans can be undertaken as a 'bottom up' approach as shown:



Council overall has core asset management plans developed for each asset category, with some elements at an advanced stage.

The level of detail within each plan will depend on the complexity and size of the asset portfolios under consideration. It is important that all Asset Management Plans match the complexity required and are practical, readily understood and useable documents.

Figure 2.

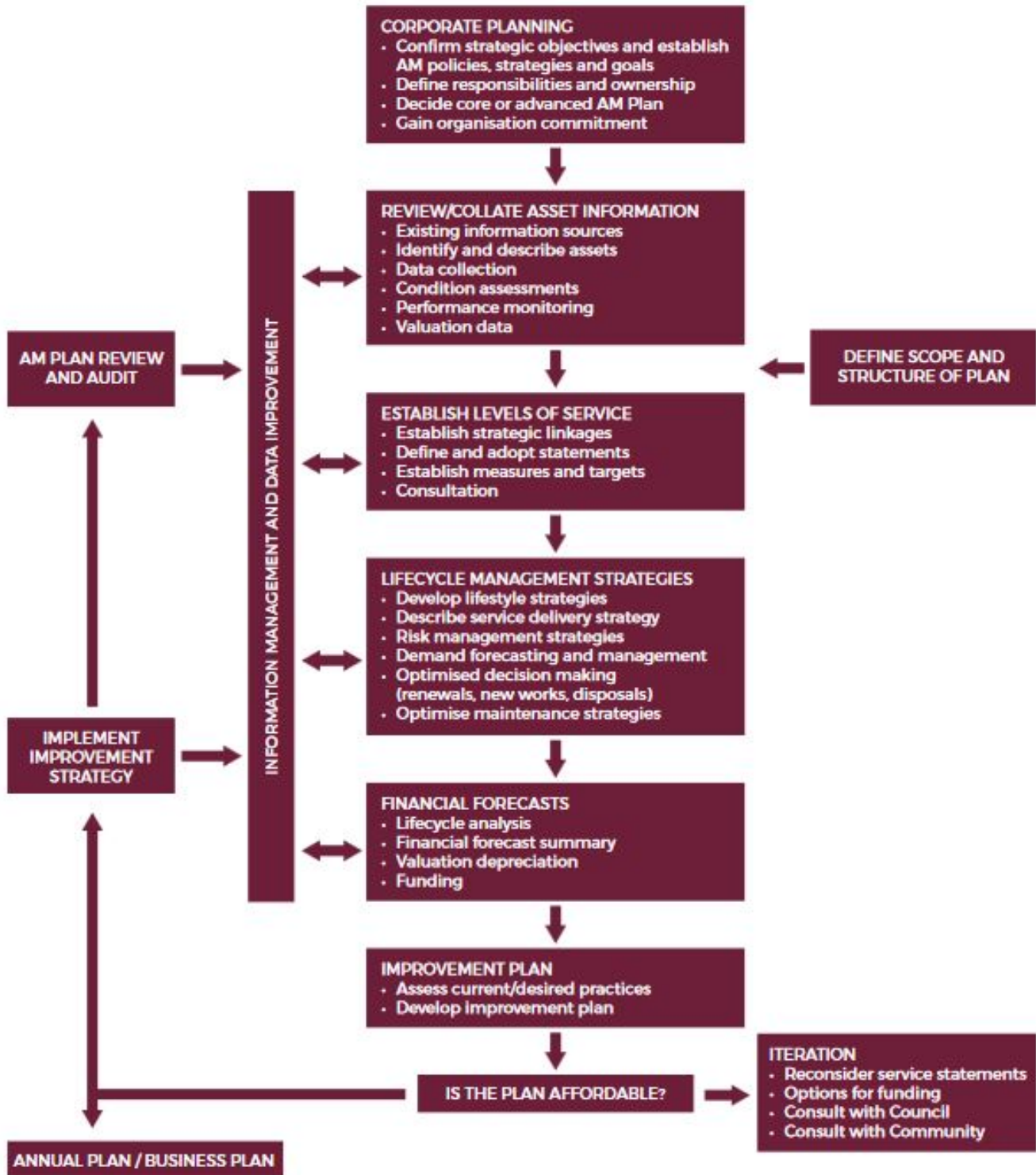


Figure 2 sets out the preferred method of preparation for Asset Management Plans.

7 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 cost from asset renewal 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.

8 Risk Management

Management of risk and liability through a risk assessment process is fundamental in assisting Council to allocate resources and meet community expectancies. The following asset categories have been identified as critical to this process, and although further and continuous work in this area is required, Council is committed to reducing risk in Council assets as demonstrated in the table below.

Asset Class	Risk Identified	Possible Causes	Risk Matrix Rating	Risk Treatment
Roads	Motor vehicle accidents causing injury/fatality/damage to property	Road deterioration, design flaws, missing safety signage, vandalism of safety signage	High	Australian Standards, RTA regulations, asset condition testing, public liability insurance
	Increased infrastructure deterioration	Design flaws, reduced material quality, reduced work quality, heavy vehicle movements, excessive weather events, poor maintenance	High	Annual maintenance program, reactive maintenance, public liability insurance
Playgrounds/Sportsgrounds	Damage to assets (outside of normal effective life)	Natural disasters, vandalism, accidental damage,	High	Identify high risk areas and use proactive means e.g. levee banks, security cameras, education programs
	Damage to sportsgrounds	Overuse	High	Management of use of grounds and parks
	Inadequate amenities	Underestimated use or capacity	Medium	Review and upgrade where required
	Injury/fatality to users	Unmaintained infrastructure, mis-use of assets, component failures, poor design, inadequate safety signage	High	Maintenance programs and AMP's, public liability insurance, safety signage
Buildings	Injury/fatality to users	Unmaintained infrastructure, mis-use of assets, component failures, poor design, inadequate safety signage	High	Maintenance programs and AMP's, public liability insurance, safety signage
	Damage to property	Natural disasters, vandalism, accidental damage	High	Identify high risk areas and use proactive means e.g. security cameras, education programs, planning & development legislation

Asset Management Plan Strategy

Asset Class	Risk Identified	Possible Causes	Risk Matrix Rating	Risk Treatment
Stormwater Drainage	Reticulation Risk	Flood events or continued heavy rainfall	High	Regular asset condition monitoring, Hazard reporting, education programs
	Structural failure	Poor design or quality of materials used	High	Regular asset condition monitoring, Australian standards, Hazard reporting
	Blockages	Environmental conditions, roots leaves	High	Regular asset condition monitoring, Hazard reporting, maintenance programs
	Injury/fatality from inadequate infrastructure	Blocked access escape paths during natural disaster event, drowning, health, odours, mosquitoes	High	Public liability insurance, Australian standards, Legislation compliance e.g. WHS Acts, Hazard reporting, education programs
	Damage to property	Attempted vehicle access through flooded assets, inadequate reticulation causing flooding on private property	High	Regular asset condition monitoring, public liability insurance, Australian standards, Hazard reporting, education programs
Water Supply/Sewerage	Reticulation Risk	Poor design or quality of materials used, aged infrastructure	High	Australian standards, asset condition testing, maintenance programs, AMPs
	Blockages	Environmental conditions, roots leaves	High	Regular asset condition monitoring, Hazard reporting, maintenance programs
	Health of community	Insufficient or inadequate infrastructure, non-functioning infrastructure, leakage	High	Regular asset condition monitoring, Hazard reporting, maintenance programs, EPA legislation, public liability insurance
Solid Waste Management	Health of community, injury/fatality	Sharps or incorrectly dumped waste treatment e.g. illegal asbestos dumping	High	Public liability insurance, Legislation compliance e.g. WHS Acts, Hazard reporting, education programs, EPA Legislation

8.1 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 12 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; and
- 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.

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 and 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), and
- 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.

Risk Matrix

		CONSEQUENCE				
		Insignificant	Minor	Moderate	Major	Massive
LIKELIHOOD	Certain	Moderate	High	High	Extreme	Extreme
	Likely	Moderate	Moderate	High	Extreme	Extreme
	Possible	Low	Moderate	Moderate	High	Extreme
	Unlikely	Low	Low	Moderate	High	High
	Rare	Low	Low	Low	Moderate	High

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 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.

9 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.

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 - Depreciation is 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.

Version History

Rev No	Date	Revision Details



Asset Management Plan

BRIDGES

2022

Asset Management Plan – Bridges

Date adopted by Council	27 June 2022
Minute number	SCR06.22
CM Ref	INT-23907/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population.</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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1 EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry. Bridges, culverts and associated structures are collectively referred to in this plan as “bridge assets” and form an integral part of the road and pathway network which is provided and maintained by Council on behalf of the community, businesses and visitors moving through the shire.

Council plans to operate and maintain its Bridge assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by this Bridge’s Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for bridge operations, maintenance and capital over the next ten years will be approximately \$18.8 million (as shown in Figure 1) with annual forecasted expenditure varying between \$900,000 and \$6.5 million per annum.

Forecasted operational expenditure (OPEX) for the ten year cycle will be approximately \$9.2 million which equates to 48.8% of the total forecasted expenditure. The Levels of Service (LOS) capital expenditure is for increasing the service level delivered by the assets.

It must be noted that the majority of the total capital expenditure budget is either partially or wholly dependent on funding secured through State and Federal Governments and other appropriate sources. Should a significant portion of this funding be unsuccessful or have considerable changes to made to existing funding agreements or arrangements it will pose a substantial risk to the assets condition and desired level of services. Given that these assets are of an ageing nature this will have considerable consequences on maintenance and operational expenditure.

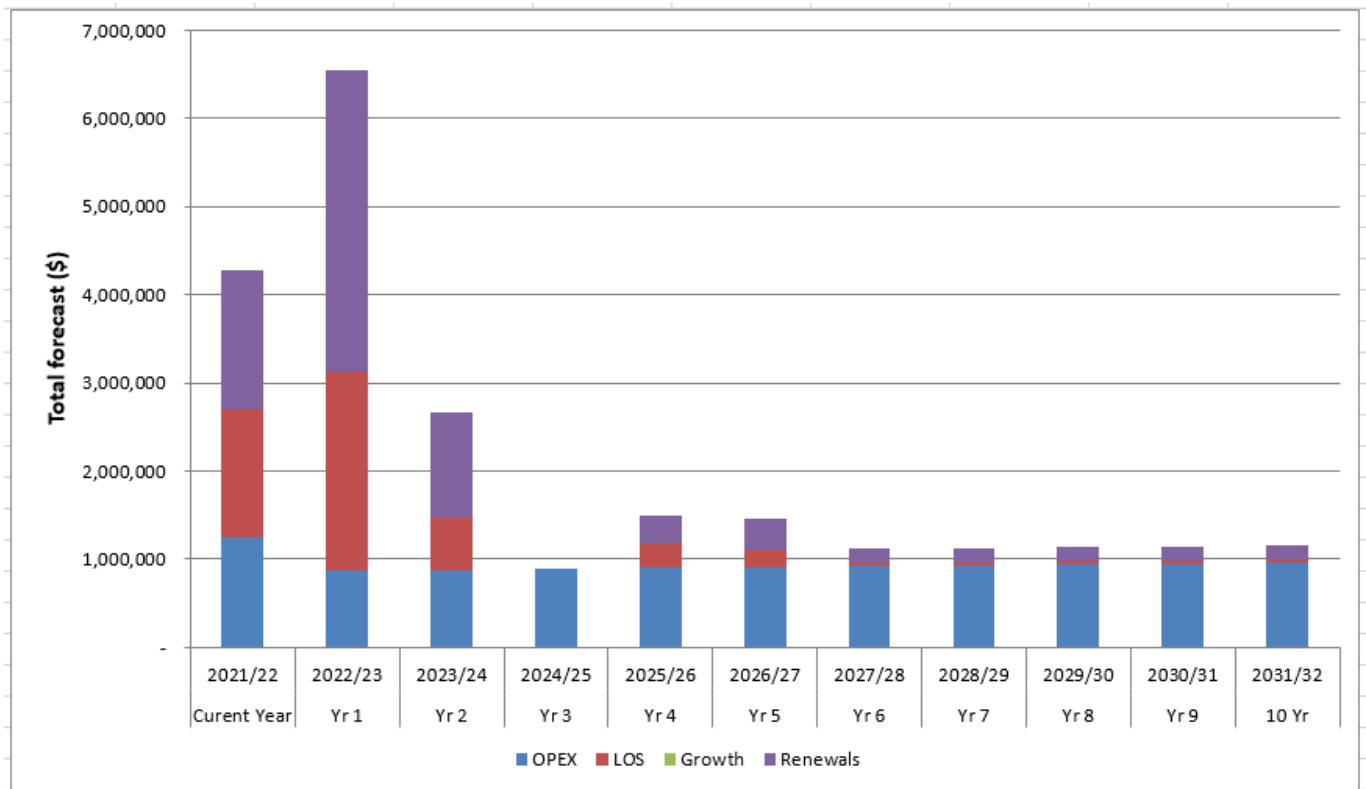


Figure 1: Summary of Bridge Total Expenditure Forecast

1.3 What we will do

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter Shire’s bridge assets to meet the service levels set in this plan
- Inspect the bridge infrastructure annually to ensure that they are performing and reassess their condition grading
- Plan any works to address the defects found from asset inspections
- Plan bridge renewals based on failure statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.
- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

Asset Management Plan – Bridges

- Poor or incomplete asset management practices including AMP, lifecycle management plans (LCMP) and asset condition assessments.
- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Complete the actions identified in the Bridge’s AMP including lifecycle management plans (LCMP); complete the resourcing levels for bridge asset management and complete the asset condition survey.
- Complete the full revision of the Bridge’s AMP; complete the asset condition assessment program.
- Implement the asset management improvement program; continue with regular inspections and reporting on assets; start proactively analysing and reporting on data availability; start building core asset management capability; complete asset condition survey.

The Next Steps

The actions resulting from the Bridge’s AMP are:

- Complete the comprehensive condition survey of all bridge assets.
- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the bridge services asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Start recording work history to assets in CONFIRM to improve renewal planning.
- Complete a formal AM Maturity Assessment of the bridge assets.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.5 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council’s assets range from roads and footpaths to buildings, playgrounds, bridge infrastructure and street furniture.

What is an asset management plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset’s life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however, excessive planned maintenance increases costs. An objective of asset management is to strategically time

infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations, and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

What can you do?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

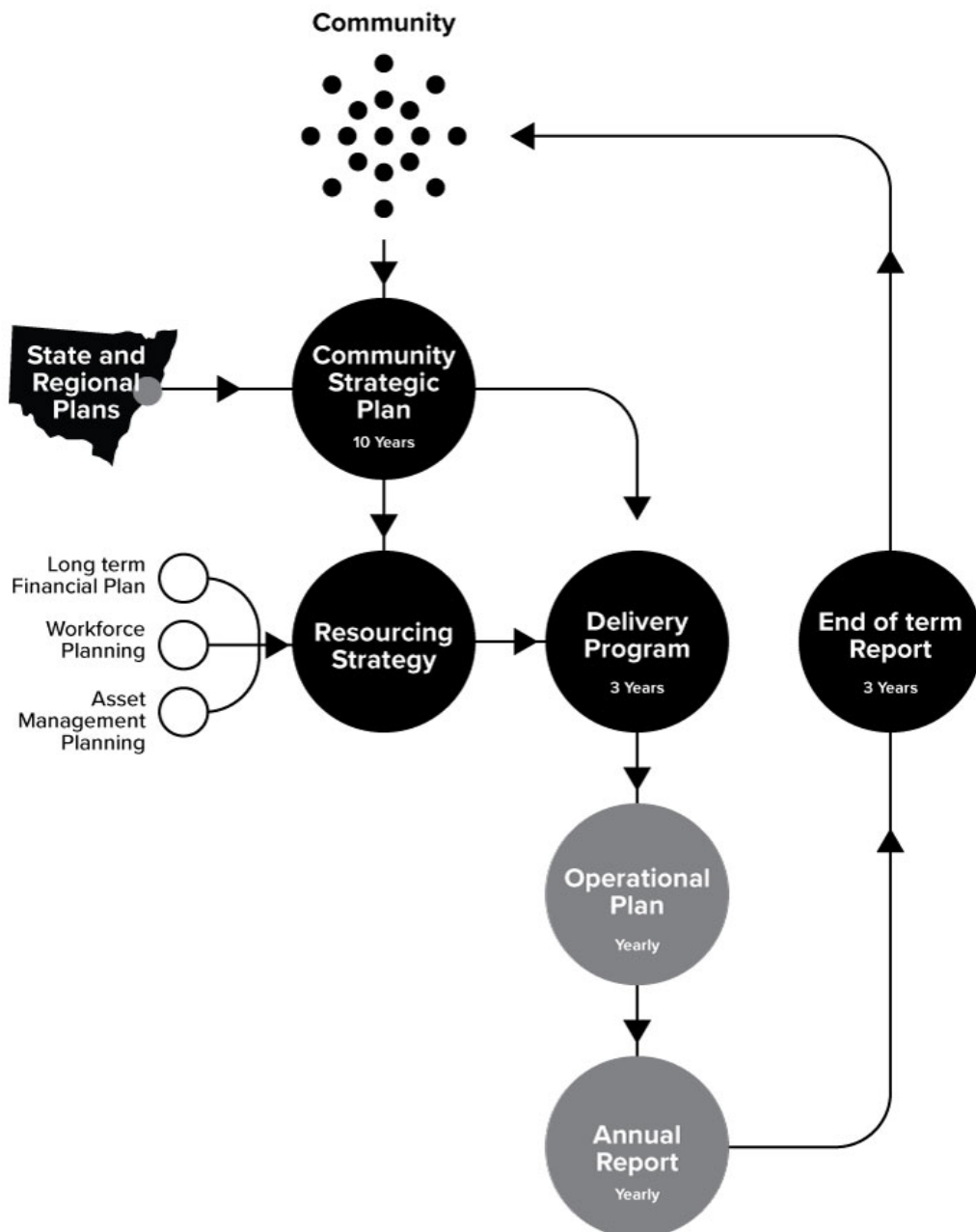
The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

Asset Management Plan – Bridges

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



3 INTRODUCTION

3.1 Background

About this Plan

The Bridge’s AMP is to demonstrate responsible 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 Bridge’s AMP is to be read with Council’s Asset Management Policy and Strategy and the following associated planning documents:

- Revised current year budget 2021/22
- Delivery Program 2018/2019-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation
- Council files on Bridge Infrastructure Assets
- Upper Hunter Shire Council Satisfaction Survey Results

Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². Bridges, culverts and associated structures are collectively referred to in this plan as “bridge assets” and form an integral part of the road and pathway network which is provided and maintained by Council on behalf of the community, businesses and visitors moving through the shire as shown in Figure 2.



Figure 2: Map of Upper Hunter Shire Towns

Council’s bridge network comprises concrete and timber structures and culverts greater than 6m in length. Refer to sections 5 and 8 for bridge asset details including asset valuation.

Our Stakeholders

Key stakeholders interested in bridge assets are shown in Table 1.

Table 1: Key Stakeholders in Bridge Assets

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Stormwater Program Area	Owner of this plan and responsible for assets covered by this plan
Strategic Assets	Owner of Asset Management Policies and Strategies
Local residents	Users of Council Assets and Services
Local businesses	As User of Council Assets and the future of new commercial and community growth
Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental groups	Interested in improvement to the natural environment and efficiency initiatives
Council’s roads department	Interested in the coordination of the capital programs in the road corridor

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service

Asset Management Plan – Bridges

- Identifying, assessing and appropriately controlling risks associated with asset failure
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

The Bridge’s AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032

Council’s goal is to achieve this in an efficient, cost effective manner while remaining ecologically sustainable and to investigate the future delivery of services.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”

Our commitment to the Community

- We will deliver high quality, innovative, consistent and responsive services to the community.
- We respect the rights of everyone to be treated fairly.
- We will keep our community informed about Council services and financial position.
- We will continually strive to improve our services to the community and encourage community engagement.
- We will deliver increased effort in the protection of the environment.

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 2.

Table 2: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Maintaining and developing our infrastructure network to meet the ongoing needs of our population	Provide for replacement, improvement and additional Community and open space infrastructure through best practice and risk management.	By sustainably managing the bridge asset portfolio and by renewing and upgrading structures as required.
	Maintain and upgrade the road network.	By providing for the cost effective development, upgrade, renewal and maintenance of bridge services assets in the Shire
	Increased Community engagement and updates on infrastructure planning, road priorities, works and improvements	By proactively surveying the asset condition of our bridge network we will understand and make long term plans for a sustainable infrastructure

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
		By measuring the achievement of our service levels to our communities to ensure adequate bridge services provision

4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. To achieve and maintain acceptable levels of service for Council’s bridge network, a system of setting, recording and reviewing service levels achieved with the assistance of Community input is required. Future iterations of this plan will involve further and more detailed community consultation in this regard.

The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements.

4.1 Community Consultation

The Bridge AMP is prepared to facilitate community consultation initially through feedback on public display of draft AMPs prior to adoption by the Council.

Future revisions of the Bridge AMP will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company Micromex Research Consultants. They undertook extensive telephone surveys in 2009, 2013 and 2015.

This survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of services (52 in total). A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013 and 2015 using a mix of phone and face to face surveys.

Respondents in the survey did not make any specific reference to bridge maintenance/construction matters and most road maintenance concerns appeared to be related to maintenance of unsealed roads.

Further research on customer expectations in relation to bridge and culvert assets will be investigated in future updates of this Asset Management Plan.

4.3 Strategic and Corporate Goals

The Bridge’s AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 3 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 5.2.

Table 3: Bridge Asset Objectives

Focus Areas	Objectives
Customer Service	Meet Levels of Service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council is required to adhere to many Federal and State Government legislative regulations and requirements as shown in Table 4.

Table 4: Legislative Requirements

Legislation	Requirement
Local Government Act, 1993 and Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.

Legislation	Requirement
OLG Integrated Planning NSW	Key requirement is to integrated community plans with operational and delivery plans.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.
Road Transport (Safety and Traffic Management) Act 1999	Facilitates the adoption of nationally consistent road rules in NSW, the Australian Road Rules. It also makes provision for safety and traffic management on roads and road related areas including alcohol and other drug use, speeding and other dangerous driving, traffic control devices and vehicle safety accidents.
Road Transport (General) Act 2005	Provides for the administration and enforcement as well as review of the road transport legislation, ultimately aiming to improve road safety and transport efficiency.
Road Management Act 2004	Council is the Responsible Authority for local roads, as defined in the Road Management Act 2004. The act specifies the roads that Council is responsible for under Section 37. Specific duties are also highlighted. Bridge are considered part of the road network and, as per the Local Government Act, are referred to in a schedule: Sch 3 clause 9. Under the above legislation a bridge is deemed to be part of the road network and the responsible authority for the road is therefore the responsible authority for the bridge. The relevant co-ordinating road authority for a public road must register the public road on its register of public roads
WHS Act and Regulations	Council must ensure a safe workplace for all its employees and the public
Disability Discrimination Act	Sets out the responsibilities of Council and staff dealing with access and use of public infrastructure.

4.5 Current Levels of Service

We have defined service levels in two terms.

Community Levels of Service

This measures how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. repair damaged bridge)
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. bridge replacement).
- Upgrade – the activities to provide a higher level of service (e.g. widening a bridge, or a new bridge that did not exist previously).

The bridge levels of service are summarised in Table 5. The full levels of service (LOS) table including performance measures and targets are detailed in Section 8.2.

Table 5: Bridge Customer LOS

Key Service Attribute	Customer LOS
Safety	Manage transport infrastructure to maximise safety for users
Quality - reliability	Provide bridges and culverts of an appropriate standard
Responsiveness	Provide prompt responses for service
Sustainable -Environmental performance	Provide a network that meets customer requirements
Sustainable -Cost Effectiveness	Provide service in a cost effective manner
Function	Suitable geometric width and load capacity adequate to meet road class

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The bridge asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

The rollout of bridge and culvert assets to a number of new areas is considered during a review of councils Strategic Business Plan, which includes detailed and long term financial modelling of options for service extensions.

5 FUTURE DEMAND

5.1 The Shire's Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 6: Population Projections for Upper Hunter Shire reflecting an average annual growth rate of -0.50 % pa.

Table 6: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Forecast

The key factors that directly impact the demand for Bridge infrastructure are:

- population growth
- demographic changes
- residential development
- extension of services to towns and villages.

Demand factor trends and impacts on service delivery are summarised in Table 7.

Table 7: Demand Factors

Demand factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council’s population in 2016 was 14,350	Upper Hunter Shire Council’s population is predicted to decline the next 10 years.	A negative growth rate will have an insignificant demand on services
Demographics	28.6% of the Shire’s population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand on services
Climate Change	Extremes increasing	More frequent extreme weather events and increased exposure to radiation effects.	More rapid deterioration of bridge, increasing frequency of inspections and maintenance and repairs.

Demand factor	Present position	Projection	Impact on services
Ageing Assets	Current bridge network reaching maturity	Deteriorating condition of assets	Increased demand for timely asset renewal and upgrade as assets begin to show increasing signs of wear and tear.

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 8.

Table 8: Changes to Technology

Technology Change	Effect on Service Delivery
Implementation of electronic asset management system	Key areas of concern in service delivery will be identified and addressed as implementation progresses and more data becomes available on level of service criteria. Service provision is also expected to become more efficient, enabling increased service delivery.
Improvements in data capture, analysis and monitoring	Accurate and up-to-date asset registers will lead to more accurate works planning and financial data. This will enable a more pro-active approach in asset management.
Introduction of new machinery	Reduced costs, improved productivity and WHS
Bridge renewal treatments	Increased residual life and lower lifecycle costs

5.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 9. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 9: Demand Management Plan

Service Activity	Demand Management Plan
Community engagement	Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council’s Charter.
Customer requests	Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services
Traffic load and volume control	Improve bridge performance through road mass restrictions and reducing traffic volumes.

Service Activity	Demand Management Plan
	Load limits to be placed on bridges in poor condition, where reasonable alternate access is available.
Provision of new bridge	Development applications will be assessed to ensure that access or egress to or from a site is appropriate and in some instances new bridge or other forms of suspended structures may be required. Construction of new bridges may be a condition of consent for the development.
Upgrade of existing bridge	New development applications may result in a change of access requirements for a site. An assessment of any existing bridge capacity will be made as part of the application review, and as a result an upgrade of existing bridge may be required as part of the conditions of consent of the development. Service authorities may wish to utilise bridge to carry new services. Upgrade to the structure by these service authorities may be required in these situations. The Road and Maritime Services may approve higher vehicle mass limits into the future on some roads. Council will provide feedback about bridge capacity if required to the RMS and request funding if required.

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor.

The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10-year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the Bridge’s AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019
- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

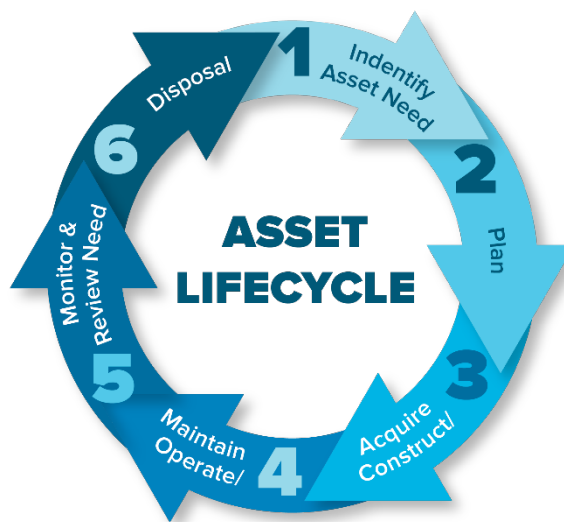
The lifecycle management plan details how Council plans to manage and operate the bridge assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. The bridge assets and culverts are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council’s key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 3 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

Figure 3: Asset Lifecycle



6.1 Background Data

6.1.1 Physical parameters

The summary of the bridge asset classes covered by this AMP are shown in Table 10. The most recent information available for the quantities and total values are detailed in Section 8.

Table 10: Bridge asset classes

BRIDGE ASSET CLASS
Timber Bridge
Concrete Bridge
Steel Bridge
Pipe Culvert Steel
Pipe Culvert Concrete

The age profile of the bridge and culvert assets generally range from the 1930’s to present. The oldest still functional bridge was built in 1917 which verifies the adopted useful life of 100 years and may in fact indicate that these structures, maintained correctly could have longer useful lives.

Based on the age profile it could be expected that there will be renewal and maintenance expenditure required over the modelling period.

6.1.2 Asset Capacity and Performance

Council’s services are generally provided to meet design standards where these are available.

Council’s bridge and culvert assets would have been designed to meet the current standards applicable at the time of construction, taking into account forecast growth. This may mean that some of the older structures may need to be re-assessed to determine if their loading capacity is adequate and relevant to today’s bridge

design standards and traffic composition. Bridge and culvert capacities may need to be assessed as part of Councils floodplain risk management processes for emergency access.

Locations where deficiencies in service performance are known are detailed in Table 11.

Table 11 - Known Service Performance Deficiencies

Location	Service Deficiency
Local Rural and Urban Roads	Some bridge widths are below the desirable width for road classification.
	Some bridges have load limit restrictions
	Some bridges and culverts are subject to inundation

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, routine maintenance inspections and customer requests.

The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset. In taking these factors into account and the current revaluation cycle for assets Council has determined a condition inspection frequency for each asset class. The following inspection frequency has been adopted for each asset class for future condition surveys:

- Timber Bridge – Annually
- Concrete Bridges - Biannually
- Culverts - Biannually

At present the condition of an asset is gauged by a visual rating system that assigns a condition rating on the asset based on how it appears to be functioning in providing its service to the community.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 12.

Table 12: Visual Condition Assessment

Rating Scale	Condition Description
Concrete - This element defines the condition and load carrying capacity of the concrete members.	
1	No significant deterioration.
2	Minor cracks and spalls. No exposed reinforcement or evidence of corrosion.
3	Some delimitation or spalls may be present and some reinforcement may be exposed. Corrosion of reinforcement may be present but loss of section is minor and does not significantly affect the serviceability of the element or bridge.
4	Advanced deterioration. Corrosion of reinforcement and/or loss of section is sufficient to warrant analysis to ascertain the impact on the strength and/or serviceability of either the element or the bridge.
5	Structural failure, no longer providing service.

Rating Scale	Condition Description
Steel - This element defines the condition of protective coatings and section loss of steel members.	
1	There is no evidence of corrosion and the protective coating is sound and functioning as intended to protect the metal surface.
2	There is little or no corrosion. The protective coating may be chalking, peeling, cracking or showing early signs of deterioration. There is no exposed metal.
3	The protective coating has failed. Rust and pitting may be present but section loss is minor and does not yet affect the serviceability of the member or structure.
4	Corrosion is advanced. Section loss is sufficient to warrant analysis to ascertain the impact on the strength and/or serviceability of either the element or the structure.
5	Structural failure, no longer providing service.
Timber - This element defines timber condition and load carrying capacity	
1	Investigation indicates no decay. There may be cracks, checks or splits having no affect on strength or serviceability.
2	Decay, insect infestation, splitting, cracking, checking or crushing may exist but none is sufficiently advanced to affect serviceability.
3	Decay, insect infestation, splitting, cracking, checking or crushing has resulted in loss of strength of the element but not of sufficient magnitude to affect the serviceability of the structure.
4	Advanced deterioration. Decay, insect infestation, splitting, cracking, checking or crushing has produced loss of strength that affects the serviceability of the structure.
5	Structural failure, no longer providing service.

Given the long life of Bridge assets and the difficulties in establishing their condition it is recognised that this process is largely subjective.

Condition assessment

A desktop assessment of asset condition has been completed for the purposes of developing this AMP. Periodic bridge condition assessments are critical in keeping a grasp on the condition of a bridge asset’s various components. Council undertakes asset condition inspections on a yearly basis to give a snap shot of the condition of each of the following structural elements:

- Pylons/ foundations
- Cross Heads
- stringers
- cross beams
- deck
- guard rails
- end walls/ abutments
- culvert fabric

This high level assessment of asset condition is summarised in Table 13. Note that the percentages are based on gross replacement costs.

Table 13: Assessed Bridge asset condition summary

BRIDGE ASSET CLASS	ASSET CONDITION GRADE				
	1	2	3	4	5
Bridges	55.0%	42.0%	3.0%	0.0%	0.0%
Culverts	84.0%	13.0%	2.0%	1.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised below. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

- Current Replacement Cost \$104,043,000
- Accumulated Depreciation \$ 24,938,000
- Written Down Value \$ 79,105,000

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The write-down of assets is based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle as depicted in figure 4.

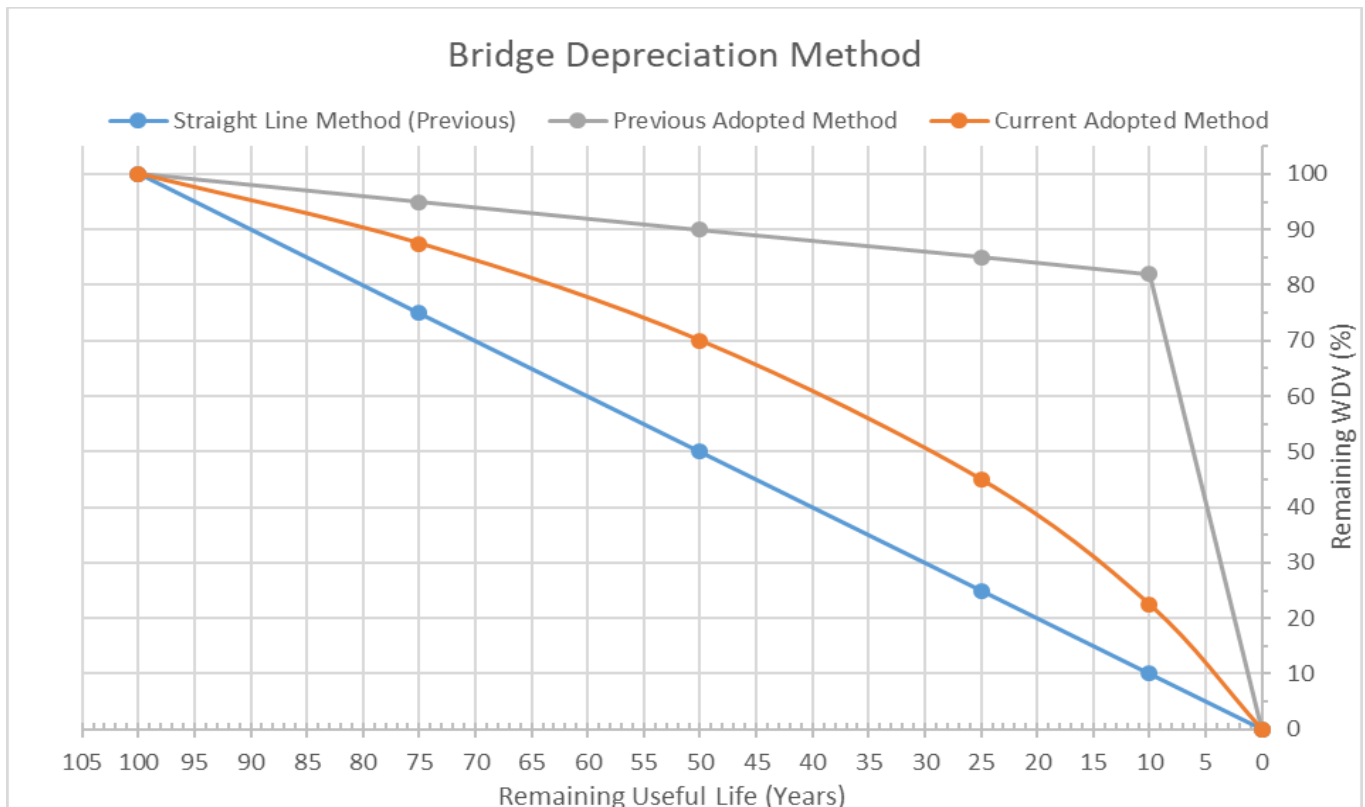


Figure 4 – Bridge and Culvert asset write-down methodology

Asset revaluations are required to be completed by Council's on a 5-year cycle (at a minimum) in accordance with the "Local Government Code of Accounting Practice and Financial Reporting". This revaluation considers the suitability of design, useful life and condition assessment of the asset components that are being revalued. It also uses industry specific data to estimate the current replacement cost of the assets held.

Useful lives are currently being reviewed as part of the revaluation process with the assets to be reviewed again in 2025/26 in line with the revaluation cycle as set by the Office of Local Government.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes
- NSW Reference rates used for most assets replacement cost estimate.

There has been no major variation to the revaluation processes since the last Council adopted Asset Management Plan other than the change in methodology for asset write-down from a straight line method to consumption usage method which provide a more realistic approach for the deterioration of the asset.

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to bridge assets is to ensure that

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council's bridge assets include:

- Public health and safety
- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, water damage or events such as accidents.

Risk identification for bridge assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment/control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Asset Management Plan – Bridges

Options to treat risk posed by bridge assets include (but not limited to):

- risk elimination.
- reduction in the cause or likelihood of the event occurring.
- reduction in the consequence or severity of the event if it were to occur.
- increasing the maintenance regime.
- initiating council improvements.
- changing operating processes and procedures.
- sharing the risk through insurance or contracts.
- doing nothing and accepting the risk.

Asset risks have been identified for the bridge activity using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 14 shows the very high (VH), high (H) and medium (M) risks identified (top 3 only shown), the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 14 – Critical Risks and Treatment Plan

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
Deteriorated timber bridge or load limited bridge failure	Structure fails without warning	M	Regular inspection and repair as required.
Bridge/large culvert network	Lack of maintenance leading to water ponding, poor delineation/signage, tree/vision obstructions, rough deck surface	H	Annual inspections identify maintenance and works carried out promptly in accordance with RMP
	Increased public liability	H	Prioritise urgent works identified in 2015-2016 survey and program other repair works, as budget permits from annual inspections.
	Inadequate information to make required financial renewal decisions	M	Condition inspections carried out on regular five-year cyclic basis
Bridge network	Overloading of structures and associated reduced asset life and load capacity	M	Inspections identified bridges that should undergo a Level 2 inspection. Recommendations on load limit to be undertaken.

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. Maintenance includes reactive, planned and cyclic work activities.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

- Reactive maintenance is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.
- Planned maintenance is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 15.

Table 15: Maintenance Expenditure Trends

Maintenance Expenditure	
Planned and Specific	Unplanned
10%	90%

Planned/cyclic maintenance work is approximately 20% of total maintenance expenditure depending on the frequency and intensity of natural disasters which occur during the year. It is Council’s goal to increase this amount progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

Due to there being a minimal backlog of works and that most assets are reaching their full useful life indicating that existing maintenance expenditure levels are adequate to meet required service levels. The assessment and prioritisation of reactive maintenance is undertaken by Council staff using professional experience and judgement.

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council

Asset Management Plan – Bridges

- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

A high level criticality assessment has been completed for Council’s infrastructural asset groups including bridge and culvert assets. Different bridge asset elements were assessed as high, medium or low criticality rating and are detailed in Table 16. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 16: Critical Bridge Assets

	High	Medium	Low
Road Classification	Regional Roads, R1 Roads	R2, R3 & urban Roads	R4 roads
No of Spans	>=3	2	1
Material	Timber	Concrete / Steel / Composite	Culverts
Usage		Traffic	Pedestrian
Number of Bridges	1st or only bridge	2nd bridge from end	other
Number of Residences	> 20 properties	5 - 19 Properties	< 5 properties

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff in accordance with the Council standard drawings.

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the asset network, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the asset network from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Renewal will be undertaken using 'low cost' renewal methods where practical. The aim of 'low cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement costs.

6.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the condition survey. The estimated service life of bridges is between 80-100 years. Based on the age profile from the asset register the remaining life of the 1960's portion of the bridge network is estimated to be a greater than 40 years. Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

The decision criteria for major bridge and culvert renewals include, in descending importance:

- Accident potential
- Heavy vehicle volume
- Local network significance
- Regional network significance
- Light traffic volume
- Cost/Benefit ratio
- Existing maintenance costs
- Environmental issues

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery 'deficiency', present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
- evaluate the options against evaluation criteria adopted by Council
- select the best option to be included in capital renewal programs
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required

Asset Management Plan – Bridges

- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

6.4.3 Renewal standards

Renewal work is always carried out to current standards and capacity unless a reduced capacity can be justified.

6.4.4 Summary of future renewal expenditure

Future renewal costs are forecast to increase over time as the asset network ages and traffic loading and use increases. Renewals are to be funded from the council's capital works program and grants where available, see appendix B.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.1 Selection criteria

New assets and upgrade/expansion of the existing bridge and culvert assets are identified from the following:

- proposals identified by strategic plans or partnerships with other organisation;
- growth – increased development and potential flooding;
- known road or street flooding locations;
- poor condition, under capacity bridge/culvert locations.

In preparing future works programs to upgrade/expand the bridge and culvert network consideration is given to the following:

- extent of flooding including potential damage and hazards;
- capacity and condition of the existing bridge and culvert asset;
- strategic locations to improve the quality of access.

6.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. It is unlikely that any bridge would be disposed of while it is still in service. Demolition and disposal of bridge assets will occur during the replacement process.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the Bridge's AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Note that expenditure forecasts (operational and capital) are based on the on the Delivery Program 2018/2019-2022/2023 and Operational Plan 2022/2023.

The improvements proposed for condition monitoring and establishing more accurate useful lives for the Bridge system will be an input into that process also.

7.1 Financial Projections

7.1.1 Financial Summary Overview

The total amount of forecasted expenditure for bridge operations, maintenance and capital over the next ten years will be approximately \$18.8 million (as shown in Figure 5) with average annual forecasted expenditure \$900,000 and \$6.5 million per annum.

This expenditure is divided into two main categories being:

- Capital Expenditure (CAPEX), which is approximately \$9.6 million or 51.2% of total expenditure and Operational Expenditure (OPEX), which is approximately \$9.2 million or 48.8% of total expenditure.

The CAPEX is further separated into three main subcategories being:

- Level of Service (LOS), which increases the service level delivered by the assets. This accounts for approximately \$3.5 million or 36.4% of total capital expenditure.
- Renewal, which replaces the assets as new. This equates to approximately \$6.1 million or 63.6% of total capital expenditure.
- Growth, refers to the expansion of the existing asset network. There is currently no planned expansion to the existing asset network.

Asset Management Plan – Bridges

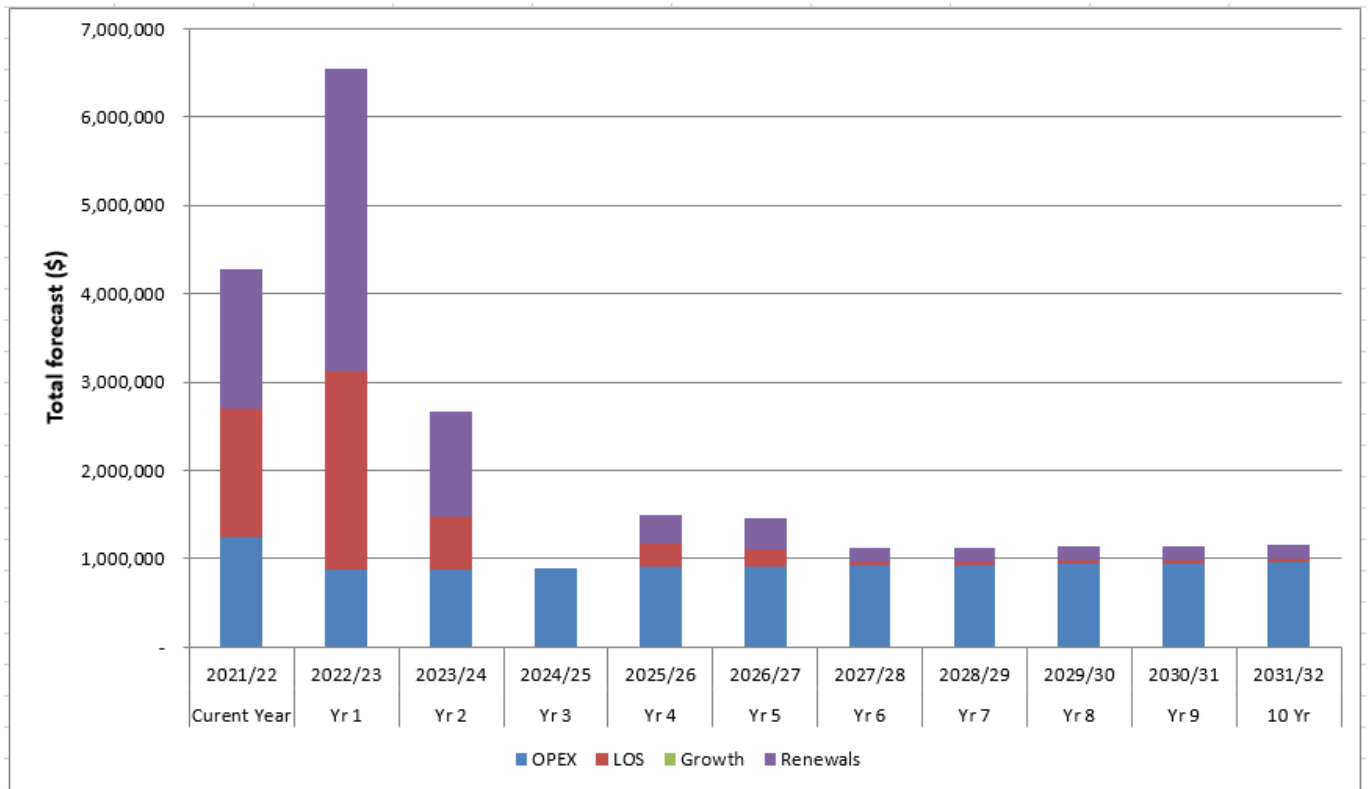


Figure 5: Summary of Bridge Total Expenditure Forecast



Table 17: Summary of Bridges Total Expenditure Forecast

BRIDGES SUMMARY	CURRENT 2021/22	YR 1 2022/23	YR 2 2023/24	YR 3 2024/25	YR 4 2025/26	YR 5 2026/27	YR 6 2027/28	YR 7 2028/29	YR 8 2029/30	YR 9 2030/31	YR 10 2031/32	10 YEAR TOTAL
OPEX	1,246,840	874,643	878,454	891,156	903,927	912,859	921,879	930,215	938,685	946,940	959,410	9,158,168
LOS	1,455,808	2,252,492	595,364	-	270,000	185,000	40,000	40,000	40,000	40,000	40,000	3,502,856
Growth	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	1,577,430	3,427,421	1,198,909	-	330,000	365,000	160,000	160,000	160,000	160,000	160,000	6,121,330
TOTAL	4,280,078	6,554,556	2,672,727	891,156	1,503,927	1,462,859	1,121,879	1,130,215	1,138,685	1,146,940	1,159,410	18,782,354

Note that the operational and capital expenditure are inflated.

7.1.2 Operational expenditure summary

The recommended ten-year operational expenditure forecast is shown in Table 18 with \$9.2 million forecast over the next ten years. This shows that bridge and culvert maintenance is 34% of the total operations expenditure, followed by administration overheads at 33%.

Table 18: Summary of Bridges Operational Expenditure

BRIDGES OPEX SUMMARY	CURRENT 2021/22	YR 1 2022/23	YR 2 2023/24	YR 3 2024/25	YR 4 2025/26	YR 5 2026/27	YR 6 2027/28	YR 7 2028/29	YR 8 2029/30	YR 9 2030/31	YR 10 2031/32	10 YEAR TOTAL
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration	13,500	12,000	12,400	12,808	13,225	13,566	13,917	14,276	14,645	15,024	15,412	137,273
Bridge and Culvert Maintenance	450,000	280,250	288,813	297,466	305,932	313,731	321,729	329,932	338,344	346,972	355,820	3,178,989
INDIRECT ASSET COSTS												
Depreciation	443,161	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	2,446,230
Loan Interest – Bridges Loan	65,836	61,285	55,538	50,031	43,901	37,287	30,366	22,359	14,073	5,146	-	319,986
Loan Interest – Bridges Loan 1	14,674	2,787	-	-	-	-	-	-	-	-	-	2,787
Loan Interest – Bridges Loan 2	14,222	6,501	531	-	-	-	-	-	-	-	-	7,032
Corporate Admin Overheads	245,447	267,197	276,549	286,228	296,246	303,652	311,244	319,025	327,000	335,175	343,555	3,065,871
TOTAL	1,246,840	874,643	878,454	891,156	903,927	912,859	921,879	930,215	938,685	946,940	959,410	9,158,168

7.2 Capital Expenditure

There is a total of \$9.6 million for capital expenditure for the next ten years as shown in Table 17. Total annual renewals fluctuate with an average of \$612,133 per annum for bridge assets. It is estimated that 36% of the capital expenditure is for LOS works, mainly for new causeways and upgrading single structures to dual lane. The full capital expenditure program is detailed in Appendix B.

7.3 Forecast Reliability and Confidence

The expenditure and valuations projections in the Bridge’s AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 19.

Table 19: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in Bridge AMP is shown in Table 20.

Table 20: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C	
Growth projections	C	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.
Projected Renewal exps - Asset values	B	Asset revaluation completed in June 2015. Major revaluation scheduled for every five years and due 2019/20.

Data	Confidence Assessment	Comment
- Asset useful lives	B	Useful lives were last reviewed in June 2015 and will be reviewed in 2019/20 prior to the major asset revaluation.
- Condition modelling	E	There has been limited condition information collected and therefore no modelling undertaken to date.
- Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
- Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as reliable confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

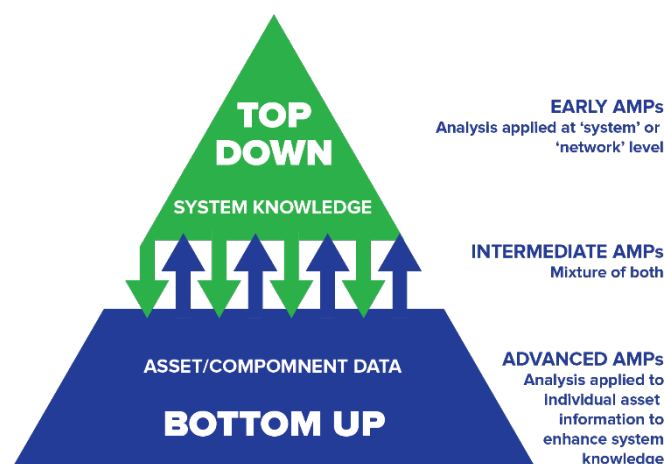
Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 66.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a ‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.



8.2 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year's achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council's maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the Bridge assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are capitalised.

8.2.3 Asset registers and management systems

Currently CONFIRM is used, supplemented by spreadsheets and Content Manager documentation. There is a need to obtain more sophisticated reports from CONFIRM, and also to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system. Currently, there is a link between asset management systems and accounting systems. In order for this AMP to grow in maturity and improve in accuracy it is vital that integration of asset register systems and financial systems be further improved.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded
- The link between the financial plan, asset plan and the works order system will be addressed in the future
- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.

8.3 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The improvement programme is summarised in Table 21.

Table 21: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2021/22	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the bridge and culvert asset inventory, collection of asset repair data, and updating asset condition assessment records.	2021/22	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the bridge and culvert blockages and overflow history.	2021/22	High	Strategic Assets, Operations
	Revise and improve the effectiveness of the current Bridge renewal program	2021/22	High	Strategic Assets
Risk management	Develop an Emergency Response Plan for the critical Bridge assets.	2021/22	High	Strategic Assets, Internal Auditor/Risk Co-ordinator
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	Very High	Strategic Assets, Information Technology, Operations

8.4 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.5 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan

- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans

9 LATEST ASSET and LOS INFORMATION

9.1 Bridge asset summary

A summary of the Shire’s Bridge asset class values is below as at 30 June 2021 are shown in Table 22.

Table 22: Value of Bridge asset classes

Bridge Asset Class	Current Replacement Value (\$ '000)	Accumulated Depreciation (\$'000)	Written Down Value (WDV) (\$'000)
Bridge	66,142,000	16,635,000	49,507,000
Culvert	37,901,000	8,303,000	29,598,000
TOTAL	104,043,000	24,938,000	79,105,000

Source: Council’s Asset Register (as at 30 June 2021)

From the latest assessment of the asset inventory, the Bridge network consists of:

- 68 Concrete Bridges
- 22 Timber Bridges
- 2 Steel Bridges
- 52 Culverts

9.2 Service Level Summary

The levels of service and performance measures for Bridge services are summarised in Table 23.

Table 23: Bridge Services Level and Performance Measure Summary

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
Minor Flooding	Minimal disruption associated with Minor Flooding	Complaints from residents regarding minor flooding	< 10 complaints per year	Achieved
Major Flooding	Adequate mitigation of major flooding events – warning, reduction of damage, etc.	Adequate systems in place and appropriate knowledge of risk	Complete regional study(ies) and Implement recommendations as per program and funding allows	Substantially met or in progress
Impact of Works	Good construction practices during and planning for construction	Business and personal disruptions during construction	< 3 complaints per year as a result of recent construction	Achieved

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
Design	Designs meet or exceed industry best practice	Current Australian Standards and guidelines met	Guidelines met or exceeded	Achieved
Maintenance	Maintenance levels keep the bridge and culvert network functioning	Complaints received for the bridge and culvert network	< 40 complaints per year regarding maintenance	Achieved

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 24. The ten-year asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 24: Asset performance indicators

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	313.69%	>100%	Yes	Renewals planned over the next four years average will reach benchmarks.
Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory condition/ value of assets)	To assess the infrastructure backlog against the total value of council’s infrastructure	0.51%	<2%	Yes	97% of assets are in condition 1 and 2.
Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	0.52%	>100%	No	Council’s Bridge and Culvert assets did not meet the required planned maintenance in 2020/21.
Capital Expenditure Ratio (assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	3.14	>1.1	Yes	Capital expenditure planned over the next seven year average is favourable to the benchmarks.

It must be noted that all these ratios are purely based on financial information not the physical infrastructure that has been renewed. That is to say, that although Council is financially meeting the benchmark of renewals but may in fact not be physically due to the increased cost of renewals.

Specifically the Infrastructure Renewal Ratio (Renewals/Depreciation) for 2020/21 for Bridge and Culvert assets is 313.69%, which is considerably higher than the benchmark of 100%. This is due to the amount of State and Federal Government grant funding received. Renewals planned over the next four years will reach benchmarks.

Specifically the Infrastructure Backlog Ratio (Cost to Bring to Satisfactory/Written Down Value) for 2020/21 for Bridge and Culvert is 0.51% which is lower than the benchmark of 2%. The cost to bring to satisfactory is calculated by using a percentage of the replacement cost for assets in condition three (2.64%) and four (0.36%). An increase in capital expenditure with a clear focus on renewal programs and/or an increase in operational expenditure with a strategic emphasis on efficient and effective planned maintenance regimes should assist in reducing this for the future.

Specifically the Asset Maintenance Ratio (Asset Maintenance Expense/Required Maintenance) for 2020/21 for Bridge and Culvert assets is 0.52% which is lower than the benchmark of 100%. This indicates that an increase in operational expenditure is required to ensure the assets are maintained to an acceptable level of service and that premature renewals are not required. If this is not rectified the assets will have a declining condition and require much higher investments in asset renewals.

Specifically the Capital Expenditure Ratio (Capital Expenditure/ Depreciation) for 2020/21 for Bridge and Culvert assets is 3.14 and is higher than the benchmark of 100%. The Infrastructure Renewal Ratio will increase significantly over the next seven years due to an increase in capital expenditure reliant on State and Federal Government grant funding received.

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

Appendix A	Acronym Glossary
Appendix B	Projected 10 Year Capital Renewal, Replacement and New Works Program
Appendix C	Operational Expenditure
Appendix D	Forecast of Asset Ratios to Local Government benchmarks
Appendix E	Bridge Services Activity Risk Register
Appendix F	Glossary/ Definitions

Appendix A - Acronym Glossary

Asset Management Plan – Bridges

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value



Appendix B - Projected 10 year Capital

Renewal, Replacement and New Works Program

PROJECT DESCRIPTION	Type of Works			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 YEARS
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
BRIDGES CAPITAL PROJECTS																	
3612. Cullingral Rd Culvert Replacement	50%		50%	-	-	275,000	-	-									
4696. Barton St Causeway	50%		50%	275,000	550,000	-	-	-	-	300,000	250,000						550,000
4768. Camerons Bridge Rouchel	50%		50%	-	-	2,393,260	-	-	-								
4870. Dry Creek Road Causeways	50%		50%	100,000	200,000	-	-	-	-	200,000							200,000
4871. Murulla Street Causeway Upgrade	100%		0%	-	1,100,000	58,978	1,100,000	-	-								1,100,000
4873. Timor Road Causeway Upgrade	20%		80%	160,000	200,000	-	-	-	-		100,000		100,000				200,000
4877. Stewarts Brook Causeways	20%		80%	240,000	300,000	-	-	-	-	100,000	200,000						300,000
4879. Warlands Bridge No1	20%		80%	232,292	290,365	15,600	290,365	-	-								290,365
4880. Warlands Bridge No2	20%		80%	232,357	290,446	15,600	290,446	-	-								290,446
4881. Warlands Bridge No3	20%		80%	231,738	289,673	15,600	289,673	-	-								289,673
4882. Warlands Bridge No4	20%		80%	232,237	290,296	15,600	290,296	-	-								290,296
4883. Warlands Bridge No5	20%		80%	232,538	290,672	15,600	290,672	-	-								290,672
4884. Scotts Creek Bridge No3	20%		80%	154,089	192,611	120,000	192,611	-	-								192,611
4885. Scotts Creek Bridge No2	20%		80%	378,398	472,998	26,000	472,998	-	-								472,998
4886. Blues Bridge	20%		80%	232,886	291,108	26,000	291,108	-	-								291,108
5166. Dartbrook Bridge	50%		50%	788,365	1,576,730	5,000	788,365	788,365	-	-							1,576,730
5234. Lapstone Gully Bridge 2km	20%		80%	435,043	543,804	5,000	271,902	271,902	-	-							543,804
5235. Lapstone Gully Bridge 2.9km	20%		80%	124,037	155,046	5,000	77,523	77,523	-	-							155,046
5236. Little St Bridge	20%		80%	301,976	377,470	26,000	377,470		-	-							377,470
5237. Bobialla Creek Bridge	20%		80%	492,018	615,022	5,000	307,511	307,511	-	-							615,022
5238. Ashford's Bridge	20%		80%	268,160	335,200	5,000	167,600	167,600	-	-							335,200
5239. Albano Bridge	20%		80%	290,196	362,745	5,000	181,373	181,372	-	-							362,745
5437. Concrete Causeway Upgrades	20%		80%	720,000	900,000	-	-	-	-	-		200,000	100,000	200,000	200,000	200,000	900,000
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD					9,624,186	3,033,238	5,679,913	1,794,273	0	600,000	550,000	200,000	200,000	200,000	200,000	200,000	9,624,186
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				6,121,330													



Appendix C - Operational Expenditure

BRIDGES OPEX SUMMARY	CURRENT	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration	13,500	12,000	12,400	12,808	13,225	13,566	13,917	14,276	14,645	15,024	15,412	137,273
Bridge and Culvert Maintenance	450,000	280,250	288,813	297,466	305,932	313,731	321,729	329,932	338,344	346,972	355,820	3,178,989
INDIRECT ASSET COSTS												
Depreciation	443,161	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	2,446,230
Loan Interest - Bridges Loan	65,836	61,285	55,538	50,031	43,901	37,287	30,366	22,359	14,073	5,146	-	319,986
Loan Interest - Bridge Loan 1	14,674	2,787	-	-	-	-	-	-	-	-	-	2,787
Loan Interest - Bridge Loan 2	14,222	6,501	531	-	-	-	-	-	-	-	-	7,032
Corporate Admin Overheads	245,447	267,197	276,549	286,228	296,246	303,652	311,244	319,025	327,000	335,175	343,555	3,065,871
TOTAL	1,246,840	874,643	878,454	891,156	903,927	912,859	921,879	930,215	938,685	946,940	959,410	9,158,168

Appendix D - Forecast of Asset Ratios to Local Government Benchmarks



	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
INFRASTRUCTURE RENEWAL											
Asset Renewals	1,577,430	3,427,421	1,198,909	-	330,000	365,000	160,000	160,000	160,000	160,000	160,000
Depreciation Expense	443,161	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623
INFRASTRUCTURE BACKLOG											
Estimated Cost to bring back to Satisfactory	255,355	49,708	-22,226	-22,226	-42,026	-63,926	-73,526	-83,126	-92,726	-102,326	-111,926
Closing Value of Assets	77,527,570	74,100,149	72,901,240	72,901,240	72,571,240	72,206,240	72,046,240	71,886,240	71,726,240	71,566,240	71,406,240
ASSET MAINTENANCE											
Asset Maintenance Expense	450,000	280,250	288,813	297,466	305,932	313,731	321,729	329,932	338,344	346,972	355,820
Required Asset Maintenance	466,457	123,715	3,824	3824	-29176	-65676	-81676	-97676	-113676	-129676	-145676
CAPITAL EXPENDITURE											
Annual Capital Expenditure	3,033,238	5,679,913	1,794,273	-	600,000	550,000	200,000	200,000	200,000	200,000	200,000
Annual Depreciation Expense	443,161	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623	244,623
SS7 Data											
Gross Replacement Cost (GRC)	105,592,445	108,769,932	108,251,040	107,651,586	108,086,586	108,289,086	108,226,586	108,266,586	108,306,586	108,346,586	108,386,586
% Infrastructure Condition 4 and above	0.21%	-0.11%	-0.22%	-0.22%	-0.25%	-0.29%	-0.30%	-0.32%	-0.33%	-0.35%	-0.36%
% Infrastructure Condition 3 and above	2.21%	0.57%	0.02%	0.02%	-0.13%	-0.30%	-0.38%	-0.45%	-0.52%	-0.60%	-0.67%
RATIOS BASED ON 3YR AVERAGE											
	Benchmark										
Infrastructure Renewal	100%	185.53%	329.07%	665.35%	630.40%	208.34%	94.70%	116.51%	93.34%	65.41%	65.41%
Infrastructure Backlog	2%	0.48%	0.38%	0.13%	0.00%	-0.04%	-0.06%	-0.08%	-0.10%	-0.12%	-0.14%
Asset Maintenance	1.00	0.79	1.02	1.72	6.60	-41.44	-10.08	-5.33	-3.94	-3.38	-2.98
Capital Expenditure	1.10	3.45	8.93	11.27	10.18	3.26	1.57	1.84	1.29	0.82	0.82
ACTUAL RATIO MEETING BENCHMARK											
Infrastructure Renewal		✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
Infrastructure Backlog		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Asset Maintenance		✗	✓	✓	✓	✓	✗	✗	✗	✗	✗
Capital Expenditure		✓	✓	✓	✓	✓	✓	✓	✗	✗	✗

Appendix E - Bridges Activity Risk Register



Risk	Consequence	Likelihood	Risk Rating	Proposed Treatment	Responsibility	Completion Date
Damage affecting structural performance	Moderate	Likely	High	SEPs are inspected on an annual basis and several proactive litter management programs are in place. A register of known flooding issues also exists in Council's GIS that can be prioritised in terms of importance and remedied.	Operation Services	Ongoing
Load Limit signs missing, illegible or damaged making signs substantially ineffective.	Major	Possible	High	Annual Flood Mitigation Program	Engineering, Strategy and Assets	Ongoing
Broken timber deck plan	Moderate	Possible	High	Kerb renewal works and flood mitigation works	Engineering, Strategy and Assets	Ongoing

Glossary

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components

or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an

asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost “As New” (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

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).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, e.g. parks and playgrounds, footpaths, roads and bridge, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, e.g. power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash

inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows,

Asset Management Plan – Bridges

where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC

Additional glossary items shown **

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2011	Initial draft	JB/GD	JB	JB
2	February 2013	Update asset inventory and financial data	JB/GD	JB	JB
3	March 2017	Update asset inventory and financial data	JB - GNS	JB WP ST	
4	April 2019	Update asset inventory and financial data	GNS/AG	JB WP	
5	June 2020	Update asset inventory and financial data	GNS/KW	JB WP	
6	June 2021	Update asset inventory and financial data	GNS/KW	JB WP	
7	April 2022	Update asset inventory and financial data	KW	JB	



Asset Management Plan

BUILDING ASSETS

2022

Date adopted by Council	27/06/2022
Minute number	SCR06.2
CM Ref	INT-23921/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	Maintaining and developing our infrastructure network to meet the ongoing needs of our population
	<p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry. This Buildings Asset Management Plan (BAMP) documents Council's current practices and performance. Importantly, it also provides direction for continuous improvement of the asset management practices applied to Council's building portfolio.

Council plans to operate and maintain its building assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by this Buildings Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for building operations, maintenance and capital works for the next ten years will be approximately \$34 million (as shown in Figure 1) with annual forecasted expenditure varying between approximately \$3.2 to \$4 million per annum.

Forecasted operational expenditure for the ten-year cycle will be approximately \$31.5 million which equates to 92.54% of the total forecasted expenditure and capital expenditure approximately \$2.5 million which equates to 7.46%. The Levels of Service (LOS) capital expenditure is for increasing the service level delivered by the assets.

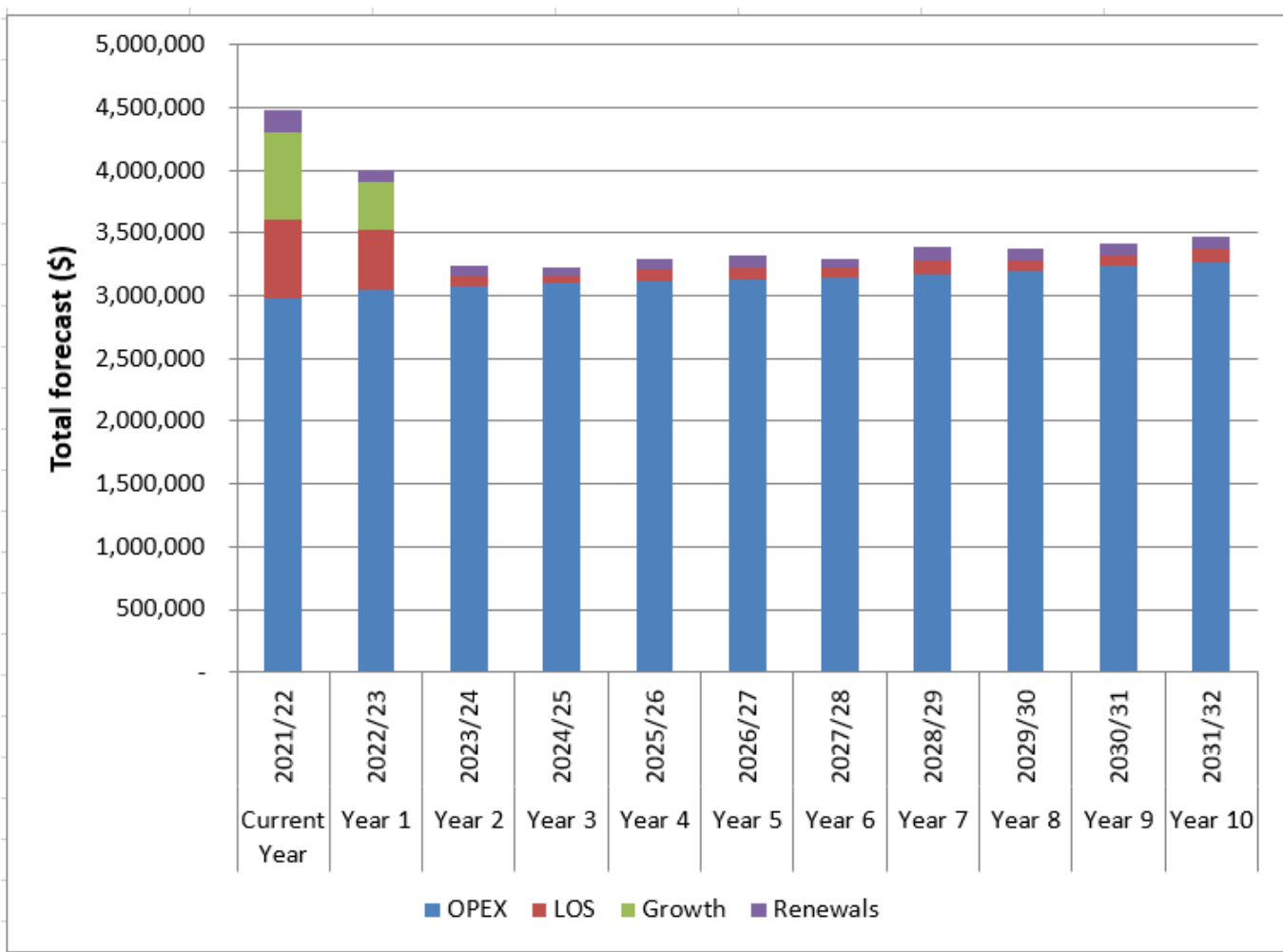


Figure 1: Summary of Building Total Expenditure Forecast

Not that expenditure forecasts (operational and capital) are based on the revised current year budget 2021/22 and the 2018/19 to 2022/23 Delivery Program and Operational Plan (DPOP).

1.3 What we will do

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter Shire’s building assets to meet the service levels set in this plan
- Inspect the building infrastructure annually to ensure that they are performing and reassess their condition grading
- Plan any works to address the defects found from asset inspections
- Plan building renewals based on failure statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.

Asset Management Plan – Buildings

- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Poor or incomplete asset management practices including AMP, lifecycle management plans (LCMP) and asset condition assessments.
- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Complete the actions identified in the Building AMP including lifecycle management plans (LCMP); complete the resourcing levels for building asset management and complete the asset condition survey.
- Complete the full revision of the Building AMP; complete the asset condition assessment program.
- Implement the asset management improvement program; continue with regular inspections and reporting on assets; start proactively analysing and reporting on data availability; start building core asset management capability; complete asset condition survey.

1.5 The Next Steps

The actions resulting from the Building AMP are:

- Complete the comprehensive condition survey of all building assets on a five-year cycle.
- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the building services asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Start recording maintenance works conducted on buildings in Council's asset management software "CONFIRM" to improve renewal planning.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.6 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council's assets range from roads and footpaths to buildings, playgrounds, building infrastructure and street furniture.

What is an asset management plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset's life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however, excessive planned maintenance increases costs. An objective of asset management is to strategically time infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations, and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

How does Council include community feedback into the Plan?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the

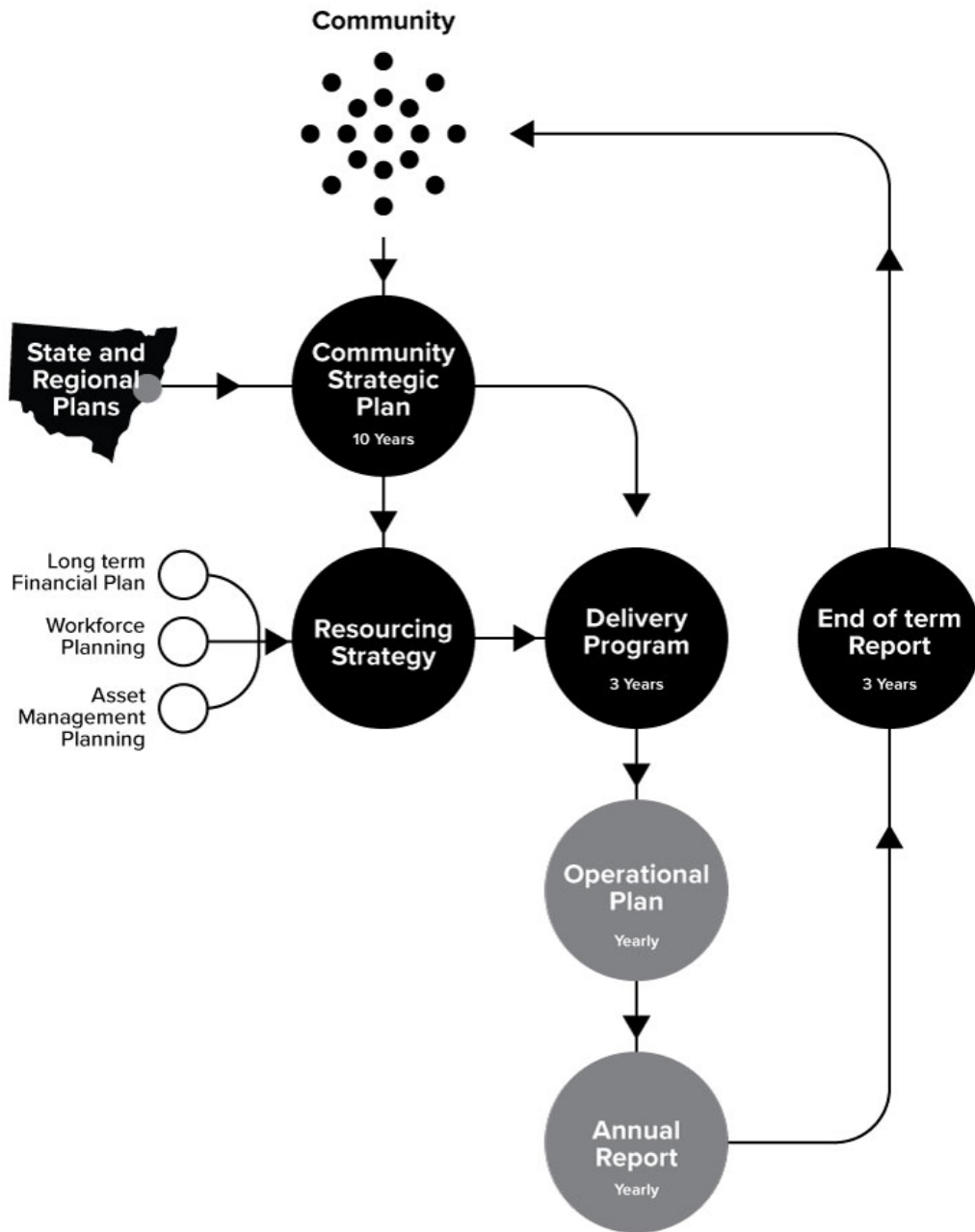
Asset Management Plan – Buildings

community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



3 INTRODUCTION

3.1 Background

About this Plan

The Building AMP is to demonstrate responsible 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 the next 10 year planning period.

The Building AMP is to be read with Council’s Asset Management Policy and Strategy and the following associated planning documents:

- Revised current year budget 2021/22
- Delivery Program 2018/2019-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation
- Council files on Buildings Assets
- Upper Hunter Shire Council Resident Satisfaction Survey Results

Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km² and includes numerous towns and villages as shown in figure 2.



Figure 2: Map of Upper Hunter Shire Towns

Asset Management Plan – Buildings

Within the Shire multiple buildings and structures fall under the care, control and responsibility of Council which are collectively referred to within this plan as “building assets”.

Table 1 below shows the total Gross replacement cost of building assets held at 30 June 2021. These building assets have been categorised into the respective Council service areas in which they relate.

Table 1: Asset Category and Gross Replacement Cost

Asset category	Gross Replacement Value (\$)
Administration	10,967,117
Public Order	3,359,141
Community Services	8,303,448
Housing	1,467,428
Recreation & Culture	21,763,861
Transport	108,600
Economic	11,976,518
Environment	289,020
Non-Specialised	335,000
TOTAL	58,570,133

Our Stakeholders

Key stakeholders interested in building assets are shown in Table 2.

Table 2 Key Stakeholders in Building Assets

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Building Program Area	Owner of this plan and responsible for assets covered by this plan
Strategic Assets	Owner of Asset Management Policies and Strategies
Local resident’s	Users of Council Assets and Services
Local business	As User of Council Assets and the future of new commercial and community growth

Key Stakeholder	Area of Interest and Role in AMP
Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental groups	Interested in improvement to the natural environment and efficiency initiatives

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failure
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

The Building AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032

Council’s goal is to achieve this in an efficient, cost effective manner while remaining ecologically sustainable and to investigate the future delivery of services.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”

Our commitment to the Community:

- We will deliver high quality, innovative, consistent and responsive services to the community.
- We respect the rights of everyone to be treated fairly.
- We will keep our community informed about Council services and financial position.
- We will continually strive to improve our services to the community and encourage community engagement.
- We will deliver increased effort in the protection of the environment.

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 3.

Table 3: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Ensuring the ongoing protection of our environment and natural resources.	Plan, facilitate and provide for a changing population for current and future generations.	By sustainably managing the asset portfolio and by renewing and upgrading structures as required.
Strengthening our vibrant industries and economy while seizing emerging opportunities.	Provide attractive and functional town centres and support revitalisation of the towns and villages including investment in built heritage and improvement of existing buildings.	By providing for the cost effective development, upgrade, renewal and maintenance of building assets in the Shire and by ensuring that they are effectively managed to deliver the required services.
Maintaining and developing our infrastructure network to meet the ongoing needs of our population	Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management	By proactively surveying the asset condition of our building assets we will understand and make long term plans for a sustainable infrastructure.
		By measuring the achievement of our service levels to our communities to ensure adequate services provision.

4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. To achieve and maintain acceptable levels of service for Council’s building network, a system of setting, recording and reviewing service levels achieved with the assistance of Community input is required. Future iterations of this plan will involve further and more detailed community consultation in this regard.

The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements. The following is the target level of service for building assets.

- Provides a place for governance and opportunity for residents and visitors to gain information on the Shire within a safe, convenient and comfortable environment.
- To provide the community with reasonable access to hall facilities that is safe, convenient and comfortable and enables the conduct of community activities and events.

- To provide the opportunity for residents and visitors to the community to meet & undertake recreational activities within a safe, convenient and comfortable environment.
- To provide Senior Citizens access to facilities that are safe, comfortable and assist in meeting their recreational and social pursuits.
- To provide tourist facilities that are safe comfortable and meet the functional requirements of staff, users and visitors.
- To provide the community the opportunity to access information and meet within a safe, convenient and comfortable environment.

4.1 Community Consultation

Future revisions of the Building AMP will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company Micromex Research Consultants. They undertook extensive telephone surveys in 2009, 2013,2015 and 2017.

This survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of services (52 in total). A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013, 2015 and 2017 using a mix of phone and face to face surveys. The 2017 results for building services are summarized in Table 4.

Table 4: Survey results for Buildings Services

Service	Importance	Satisfaction	Performance Gap
Medical Facilities	4.95	3.70	1.25
Youth services & facilities	4.00	3.15	0.85
Children services & facilities	4.20	3.50	0.70
Community centres & community halls	4.10	3.50	0.60

Source: Community Research, Micromex Research (October 2017)

4.3 Strategic and Corporate Goals

The Building AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 5 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 5.2.

Table 5: Building Asset Objectives

Focus Areas	Objectives
Customer Service	Meet Levels of Service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council is required to adhere to many Federal and State Government legislative regulations and requirements as shown in Table 6.

Table 6: Legislative Requirements

Legislation	Requirement
Local Government Act, 1993 and Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
OLG Integrated Planning NSW	Key requirement is to integrated community plans with operational and delivery plans.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.

Legislation	Requirement
Building Code Australia	Code of Practice relevant for all building design & construction.
Australian Standards & Codes of Practice	Referenced in the Building Code of Australia. Governs a vast range of building construction & management.
Heritage Act	Protection of historic buildings, structures & precincts.
WHS Act and Regulations	Council must ensure a safe workplace for all its employees and the public
Disability Discrimination Act	Sets out the responsibilities of Council and staff dealing with access and use of public infrastructure.
Planning & Development Act	Defines the land use and zoning in relation to building infrastructure.

4.5 Current Levels of Service

We have defined service levels in two terms.

Community Levels of Service

This measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

Quality	How good is the service?
Function	Does it meet users' needs?
Capacity/Utilisation	Is the service over or under used?

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. repair damaged building)
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. building replacement).
- Upgrade – the activities to provide a higher level of service (e.g. widening a building, or a new building that did not exist previously).

The building levels of service are summarised in Table 7. The full levels of service (LOS) table including performance measures and targets are detailed in Section 8.2.

Table 7: Building Customer LOS

Key Service Attribute	Customer LOS
Safety	Facilities are safe and free for hazards
Quality	Ensure that buildings are attractive and accessible
Accessibility	Council’s high use public building to be made accessible to all
Sustainable -Environmental performance	Provide a network that meets customer requirements
Sustainable -Cost Effectiveness	Provide service in a cost effective manner
Function	Facility is fit for purpose. Building is available when needed, clean and maintained adequately according to user requirements.
Responsiveness	Availability of maintenance in the case of failure of useability of the building

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The building asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

The rollout of building assets to a number of new areas is considered during a review of councils Strategic Business Plan, which includes detailed and long term financial modelling of options for service extensions.

5 FUTURE DEMAND

5.1 The Shire’s Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 8: Population Projections for Upper Hunter Shire reflecting an average annual growth rate of -0.50 % pa.

Table 8: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Forecast

The key factors that directly impact the demand for Building infrastructure are:

- population growth
- demographic changes
- residential development
- extension of services to towns and villages

Demand factor trends and impacts on service delivery are summarised in Table 9.

Table 9: Demand Factors

Demand factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council's population in 2016 was 14,350	Upper Hunter Shire Council's population is predicted to decline over the next 10 years.	Negative growth rate will have a small decrease in demand
Demographics	28.6% of the Shire's population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand on services
Climate Change	Extremes increasing	More frequent extreme weather events and increased exposure to radiation effects.	More rapid deterioration of building, increasing frequency of inspections and maintenance and repairs.

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 10.

Table 10: Changes to Technology

Technology Change	Effect on Service Delivery
Australian Standards/guidelines continuously updating.	Puts today's "acceptable" to a "redundant" to meet new requirements especially in legal terms. Legal compliance drives renewal and supervision compliances.

Technology Change	Effect on Service Delivery
Improvements in material and design of various components	Changes to compete and meet demand expectations which may increase the life of building components, reducing the susceptibility to damage, or by reducing the cost of construction or maintenance.
Change in building construction methods and the materials used	May increase the life of building components, reducing the susceptibility to damage, or by reducing the cost of construction or maintenance.
Implementation of electronic asset management system	Key areas of concern in service delivery will be identified and addressed as implementation progresses and more data becomes available on level of service criteria. Service provision is also expected to become more efficient, enabling increased service delivery.
Improvements in data capture, analysis and monitoring	Accurate and up-to-date asset registers will lead to more accurate works planning and financial data. This will enable a more pro-active approach in asset management.
Introduction of new machinery	Reduced costs, improved productivity and WHS
Renewal treatments	Increased residual life and lower lifecycle costs

5.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 11. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 11: Demand Management Plan

Service Activity	Demand Management Plan
Community engagement	Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council’s Charter.
Customer requests	Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services
Functional serviceability of all buildings.	Review of all Council’s building assets to determine the suitability in line with service function.

Service Activity	Demand Management Plan
Higher demands on the level of service and delivery of sustainable service levels.	Develop strategies to ensure service levels meet the expectations of the community and costed which include:
	Responsively address ongoing maintenance and repair needs;
	Planned electrical, air-conditioning, plumbing and fire protection equipment maintenance; •
	Pest control;
	Provide replacement components as required
	Reactive maintenance of structures including floor coverings;
	Material painting to meet acceptable service standards;
General repairs undertaken and graffiti removed.	
Reduction or deferral of the acquisition of new assets.	Determine the creation of any new building asset against whole of life costs and building function.
Energy consumption	A review of water and electricity consumption in association with the effects of global warming on all community buildings with hirer and lease agreements to identify strategies to reduce consumables.

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor.

The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10-year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the Building AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019.

- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

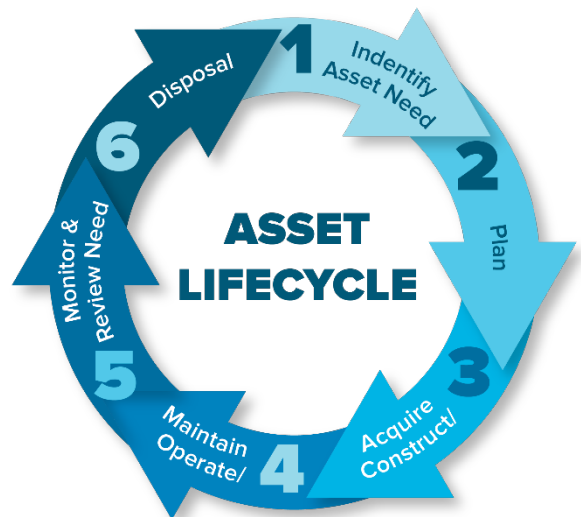
The lifecycle management plan details how Council plans to manage and operate the building assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. The building assets are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council’s key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 3 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

Figure 3: Asset Lifecycle



6.1 Background Data

6.1.1 Physical parameters

The summary of the building asset classes covered by this AMP are shown in Table 12. The most recent information available for the quantities and total values are detailed in Section 8.

Table 12: Building asset classes

Building Asset Class
Administration
Public Order
Community Services
Housing
Recreation & Culture
Transport
Economic
Environment
Non-Specialised

Currently the financial system does not readily enable the identification of individual operation, maintenance, renewal and capital costs for a particular asset. It is therefore difficult to track trends in the various costs for each building or building group. The system does however provide details on the combined operational and maintenance expenditures for an asset group. These details have been extracted and analysed to allow identification of the different expenditure classes. This is currently under review so that each building asset can be readily identifiable within councils financial and asset management systems.

The building assets are also recorded as a single entity which only provides limited information, overall condition ratings and averaged useful lives. As part of the review process and implementation of the electronic asset management system each building asset will be componentised to a level that provides detailed information for expenditure (maintenance, operational and capital), yearly depreciation and accepted useful lives.

6.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available.

Council's building assets would have been designed to meet the current standards applicable at the time of construction, taking into account forecast growth. This may mean that some of the older structures may need to be re-assessed to determine if their loading capacity is adequate and relevant to today's building design standards and traffic composition. Building capacities may need to be assessed as part of Councils floodplain risk management processes for emergency access.

Locations where significant deficiencies in service performance are known are detailed in Table 13.

Table 13: Known Service Performance Deficiencies

Location	Service Deficiency
Various with major urban areas	No significant deficiencies noted however disabled access to be reviewed .

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, routine maintenance inspections and customer requests. The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 14.

Table 14: Visual Condition Assessment

Rating Scale	Condition Description
1	A near new asset with no visible signs of deterioration
2	An asset in a very good overall condition but with some early stages of deterioration evident.
3	An asset in fair overall condition. Deterioration in condition would be obvious and there would be some serviceability loss.
4	An asset in poor overall condition. Deterioration would be quite severe and would be starting to limit the serviceability of the asset. Maintenance costs would be high.

Rating Scale	Condition Description
5	An asset in extremely poor condition with severe serviceability problems and needing rehabilitation immediately. There would be an extreme risk in leaving the asset in service.

Buildings have a vast range of factors that influence their usability. From an asset management perspective the various factors fall into one of the following groups:

- fitness for use
- fitness for purpose

Fitness for use is a measure of a building’s physical condition relative to its condition when first constructed or refurbished. This measurement takes account of the current condition of the building structure, architectural finished and services supporting the building use by the occupants. Fitness for use has been the basis of the building condition audit undertaken. When rating fitness for use, Council uses a standard scale 1 – 5, where 1= new and 5 = total deterioration.

Table 15: Visual Condition Assessment

Rating Scale	Condition Description
1	Excellent – little to no maintenance required (planned maintenance)
2	Good – minor maintenance required plus planned maintenance
3	Fair – significant maintenance required
4	Poor – significant renewal/rehabilitation required
5	Very Poor – physically unsound and/or beyond rehabilitation

Fitness for purpose is a measure of a buildings match to its current or intended use. It considers the minimum feature set required and additional features desirable to enhance the usability of a building asset. Fitness for purpose is tied to the use of a building asset rather than the asset itself and takes account of changing requirements for different features over time. In terms of fitness for purpose, a building initially fit for its intended purpose may cease to be so as standards and expectations change.

Condition assessment

A desktop assessment of asset condition has been completed for the purposes of developing this AMP. Periodic building condition assessments are critical in keeping a grasp on the condition of a building asset’s various components. Council undertakes asset condition inspections on a yearly basis to give a snap shot of the condition of each of the following asset category.

This high level assessment of asset condition is summarised in Table 16. Note that the percentages are based on gross replacement costs.

Table 16: Assessed Building asset condition summary

Building asset class	Asset condition grade				
	1	2	3	4	5
Buildings	53.3%	45.0%	0.0%	0.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised below. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

Current Replacement Cost	\$58,570,132
Accumulated Depreciation	\$18,156,484
Written Down Value	\$40,393,648

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The write-down of assets is based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle as depicted in figure 4.

Asset revaluations are required to be completed by Council’s on a 5-year cycle (at a minimum) in accordance with the “Local Government Code of Accounting Practice and Financial Reporting”. This revaluation considers the suitability of design, useful life and condition assessment of the asset components that are being revalued. It also uses industry specific data to estimate the current replacement cost of the assets held.

Useful lives were last reviewed in June 2017 as part of the revaluation process with the assets to be reviewed again in 2022/23 in line with the revaluation cycle as set by the Office of Local Government.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes
- NSW Reference rates used for most assets replacement cost estimate.

There has been no major variation to the revaluation processes since the last Council adopted Asset Management Plan other than the change in methodology for asset write-down from a straight line method to consumption usage method which provide a more realistic approach for the deterioration of the asset.

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to building assets is to ensure that

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council’s building assets include:

- Public health and safety

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- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, water damage or events such as accidents.

Risk identification for building assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment/control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Options to treat risk posed by building assets include (but not limited to):

- risk elimination
- reduction in the cause or likelihood of the event occurring
- reduction in the consequence or severity of the event if it were to occur
- increasing the maintenance regime
- initiating council improvements
- changing operating processes and procedures
- sharing the risk through insurance or contracts
- doing nothing and accepting the risk

Asset risks have been identified for the building activity using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 17 shows the very high (VH), high (H) and medium (M) risks identified (top 3 only shown), the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 17: Critical Risks and Treatment Plan

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
All Buildings	Deterioration of building assets	H	Ensure regular inspections are carried out as Preventive Planned maintenance and faults identified rectified within time lines.
	Significant loss from disaster	M	Keep insurances current. Develop a process to ensure the insured values reflect the actual valuations.

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
	Injury to staff or community member	M	Prioritise capital and renewal works based on condition.
			Allocate applicable funding and resources.
			Ensure staff and community are notified and aware of specific dangers
	Non-compliance with legislation or regulations	L	Undertake regular inspections and maintenance.
Non-Compliance works to be given priority			
Building Containing Asbestos Products	Asbestosis / Melosioma	H	Staff Awareness & Training / Maintenance / Inspection Program - Removal where identified

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. Maintenance includes reactive, planned and cyclic work activities.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

- Reactive maintenance is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.
- Planned maintenance is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 18.

Table 18: Maintenance Expenditure Trends

Maintenance Expenditure	
Planned and Specific	Unplanned
40%	60%

Planned/cyclic maintenance work is approximately 40% of total maintenance expenditure depending on the frequency and intensity of natural disasters which occur during the year. It is Council’s goal to increase this amount progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

The assessment and prioritisation of reactive maintenance is undertaken by Council staff using professional experience and judgement.

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include: -

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

A high level criticality assessment has been completed for Council’s infrastructural asset groups including building assets. Different building asset elements were assessed as high, medium or low criticality rating and are detailed in Table 19. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 19: Critical Building Assets

	High	Medium	Low
Civic Purpose	Yes		
Size	Large	Medium	Small
Multipurpose	>4 users	3 -2 users	1 primary user
Frequency of Use	Daily	3 - 4 time per week	1 - 2 time per week

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	High	Medium	Low
Hazardous Materials Stored Onsite	Yes		

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff.

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the asset network, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the asset network from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Renewal will be undertaken using 'low cost' renewal methods where practical. The aim of 'low cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement costs.

6.4.1 Renewal plan

Renewal work is the replacement of an asset or significant component to restore its original size and capacity. Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Renewal will be undertaken using 'low cost' renewal methods where practical. The aim of 'low cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement costs. Typical building renewal works include replacement of existing:

- heating, cooling and air conditioning units
- roofs, downpipes and ceilings
- electrical system and wiring
- floors and floor coverings
- plumbing systems (new cisterns, hand basins)
- doors, windows etc. and
- replacement of internal partitioning

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
- Undertaking project scoping for all capital renewal and replacement projects to identify:

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- the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement
- the project objectives to rectify the deficiency
- the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
- evaluate the options against evaluation criteria adopted by Council
- select the best option to be included in capital renewal programs
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

6.4.3 Renewal standards

Renewal work is always carried out to current standards and capacity unless a reduced capacity can be justified.

6.4.4 Summary of future renewal expenditure

Future renewal costs are forecast to increase over time as the asset network ages and traffic loading and use increases. Renewals are to be funded from the council’s capital works program and grants where available, see appendix B.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.1 Selection criteria

The strategy for Council acquiring new building assets or undertaking significant refurbishment is to firstly complete a project proposal and business case which addresses issues such as:

- relevance to corporate goals
- community need
- anticipated benefits
- environmental impacts

- risk identification and treatment
- total lifecycle costs
- impact on existing services
- forecasted usage rates and
- value for money

6.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. It is unlikely that any building would be disposed of while it is still in service. Demolition and disposal of building assets will occur during the replacement process. Any sale of buildings is subject to Council's Policy - Disposal of Surplus Council Land and Buildings.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the Building AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

The improvements proposed for condition monitoring and establishing more accurate useful lives for the Building system will be an input into that process also.

7.1 Financial Projections

7.1.1 Financial Summary Overview

The projected expenditure necessary to provide the services covered by this Buildings AMP includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for building operations, maintenance and capital works for the next ten years will be approximately \$34 million (as shown in Figure 1) with annual forecasted expenditure varying between \$3.2 to \$4 million per annum.

Forecasted operational expenditure for the ten-year cycle will be approximately \$31.5 million which equates to 92.54% of the total forecasted expenditure and capital expenditure approximately \$2.5 million which equates to 7.46%.

The capital expenditure is separated into three categories being Level of Service (LOS), growth and renewals.

- Level of Service (LOS); which increases the service level delivered by the assets. This accounts for approximately \$1.3 million or 50% of total capital expenditure.
- Renewal; which replaces the asset as new. This equates to approximately \$894,065 or 35.23% of total capital expenditure.
- Growth; refer to the expansion of the existing asset network. This accounts for approximately \$375,000 or 35.23% of total capital expenditure.

Whilst the operational expenditure remains relatively consistent over the ten-year cycle with increases relating primarily to general price indexation and increments in depreciation and insurance through increased asset values, the capital works schedule is sporadic with significant capital works anticipated in the current year 2021/22 and again in 2022/23.

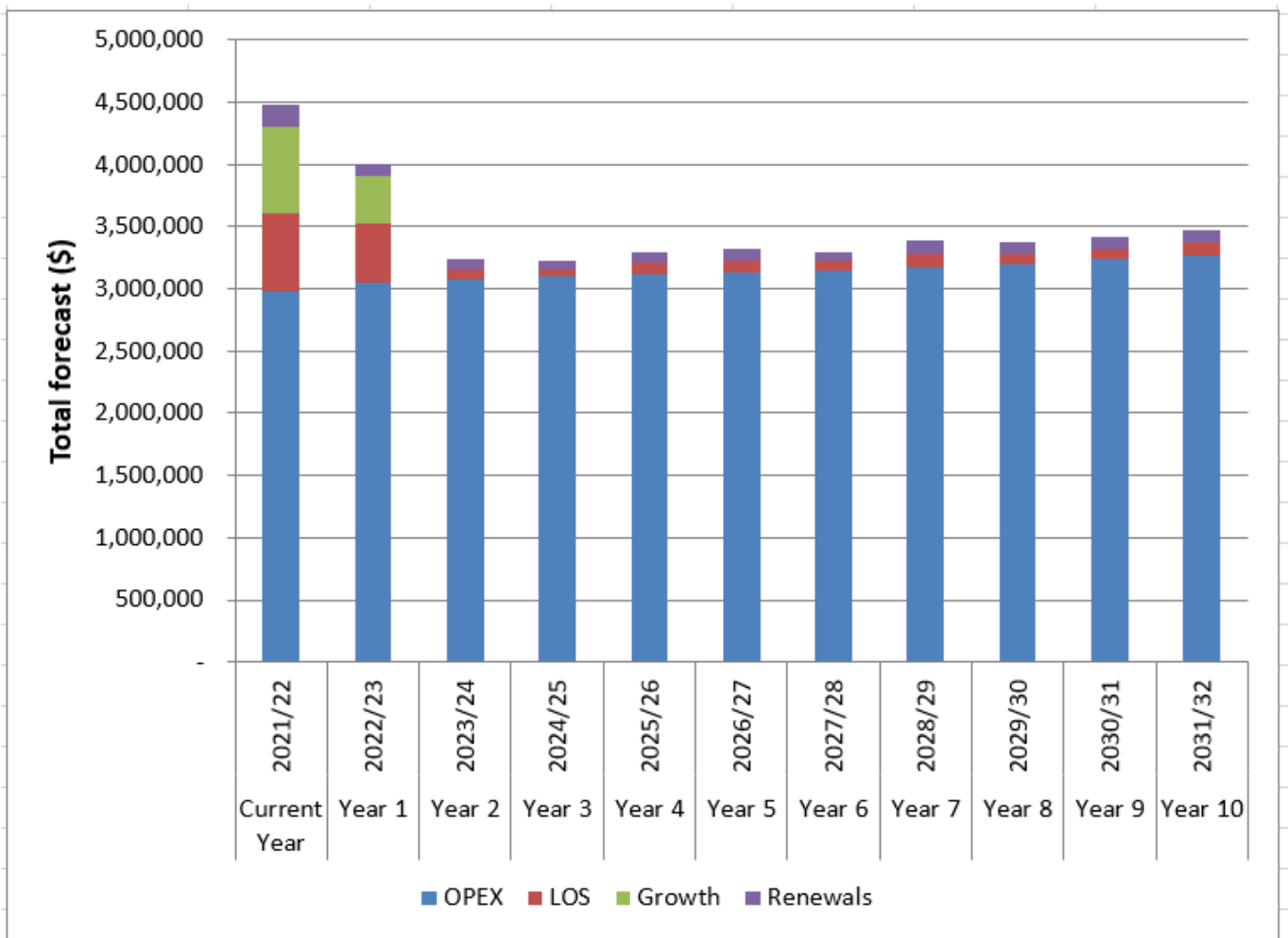


Figure 5: Summary of Building Total Expenditure Forecast



Table 20: Summary of Buildings Total Expenditure Forecast

Building Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPEX	2,977,048	3,054,242	3,074,647	3,097,959	3,119,945	3,135,497	3,150,294	3,165,885	3,192,990	3,232,785	3,267,696	31,491,940
LOS	628,881	473,550	83,524	64,764	87,916	92,967	73,103	111,024	90,162	89,642	102,414	1,269,065
Growth	701,310	375,000	-	-	-	-	-	-	-	-	-	375,000
Renewals	168,479	98,550	83,524	64,764	87,916	92,967	73,103	111,024	90,162	89,642	102,414	894,065
TOTAL	4,475,718	4,001,342	3,241,695	3,227,487	3,295,777	3,321,430	3,296,499	3,387,933	3,373,314	3,412,069	3,472,524	34,030,070

7.1.2 Operational expenditure summary

The recommended ten-year operational expenditure forecast is shown in Table 21 with \$31.5 million forecast over the next ten years. This shows that depreciation charge is 36.94% of the total operations expenditure, followed by overhead costs at 15.35% and building maintenance at 8.5%.



Table 21: Summary of Buildings Operational Expenditure

Buildings OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Operating Expenditure												
Direct asset costs												
Administration - Building Maintenance	39,600	40,000	41,275	42,536	43,778	44,892	46,034	47,205	48,406	49,638	50,501	454,265
Community Services & Education - Building Maintenance	111,673	117,184	120,976	124,763	128,539	131,818	135,182	138,631	142,169	145,797	149,518	1,334,577
Economic Affairs - Building Maintenance	77,910	117,910	114,500	118,098	121,619	125,049	128,217	131,466	134,797	138,213	141,716	145,308
Housing & Community Amenities - Building Maintenance	14,750	13,800	14,225	14,635	15,027	15,405	15,793	16,191	16,598	17,016	17,445	156,135
Public Order & Safety - Building Maintenance	18,200	19,450	20,056	20,647	21,222	21,764	22,321	22,892	23,477	24,078	24,693	220,600
Recreation & Culture - Building Maintenance	24,470	24,400	25,177	25,947	26,709	27,394	28,097	28,817	29,557	30,315	31,053	277,466
Recreation & Culture - Old Court Theatre Building Maintenance	3,000	9,000	9,283	9,560	9,831	10,082	10,340	10,604	10,875	11,153	11,438	102,166
Indirect asset costs												
Depreciation	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	11,633,680
Administration Overheads	383,970	421,296	436,041	451,302	467,098	478,776	490,746	503,014	515,590	528,479	541,691	4,834,033
Utilities	822,249	846,436	871,830	895,803	918,199	941,153	964,684	988,800	1,013,521	1,038,858	1,064,829	9,544,113
Building Loans	317,858	281,398	257,916	231,300	204,555	175,796	145,512	114,897	94,632	85,870	71,444	1,663,320
TOTAL	2,977,048	3,054,242	3,074,647	3,097,959	3,119,945	3,135,497	3,150,294	3,165,885	3,192,990	3,232,785	3,267,696	31,491,940

7.1.3 Capital expenditure

There is a total of \$2.5 million for capital expenditure for the next ten years as shown in Table 20. Total annual renewals fluctuate between years with a ten-year average at approximately \$89,406 per annum for building assets. It is estimated that 50% of the capital expenditure is for LOS works, 15% for new growth building assets and 35% on renewals of existing building assets. The full capital expenditure program is detailed in Appendix B.

7.2 Forecast Reliability and Confidence

The expenditure and valuations projections in the Building AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 21.

Table 21: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in Building AMP is shown in Table 22.

Table 22: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C	
Growth projections	C	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.
Projected Renewal exps. -Asset values	B	Asset revaluation completed in June 2020. Major revaluation scheduled for every five years and due 2025/26.
- Asset useful lives	B	Useful lives were last reviewed in June 2015 and will be reviewed in 2019/20 prior to the major asset revaluation.

- Condition modelling	E	There has been limited condition information collected and therefore no modelling undertaken to date.
- Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
- Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally, as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as reliable confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

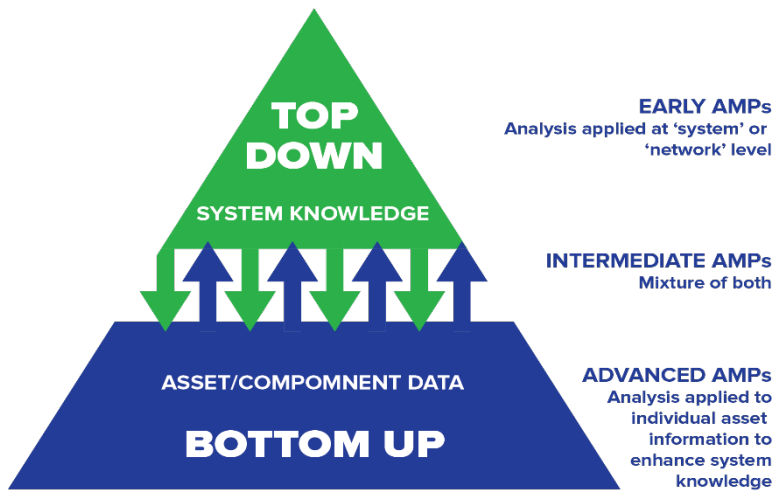
Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 6.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a ‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels:



6: Core versus advanced asset management status

8.1.1 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate & Community Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year's achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council's maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the Building assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are capitalised.

8.1.2 Asset registers and management systems

Council uses the asset management software “CONFIRM” which is supplemented by spreadsheets and the Records database “TRIM” documentation. There is a need to obtain more sophisticated reports from CONFIRM, and also to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system. Currently, there is a link between asset management systems and accounting systems. In order for this AMP to grow in maturity and improve in accuracy it is vital that integration of asset register systems and financial systems be further improved.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded
- The link between the financial plan, asset plan and the works order system will be addressed in the future
- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.

8.2 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The improvement programme is summarised in Table 23.

Table 23: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2021/22	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the building asset inventory, collection of asset repair data, and updating asset condition assessment records.	2021/22	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the building assets and history.	2021/22	High	Strategic Assets, Operations
	Revise and improve the effectiveness of the current Building renewal program	2021/22	High	Strategic Assets

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Risk management	Develop an Emergency Response Plan for the critical Bridge assets.	2021/22	High	Strategic Assets, Internal Auditor/Risk Co-ordinator
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	Very High	Strategic Assets, Information Technology, Operations

8.3 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans

9 LATEST ASSET and LOS INFORMATION

9.1 Building asset summary

A summary of the Council’s building assets values is below as at 30 June 2021 are shown in Table 24.

These building assets have been categorised into the respective Council service areas in which they relate.

Table 24: Value of Building asset classes

Building Asset Class	Current Replacement Value (\$)	Accumulated Depreciation (\$)	Written Down Value (WDV) (\$)
Administration	10,967,117	3,415,578	7,551,539
Public Order	3,359,140	815,644	2,543,496
Community Services	8,303,448	2,900,860	5,402,588
Housing	1,467,428	551,238	916,190
Recreation & Culture	21,763,861	7,958,397	13,805,464
Transport	108,600	21,758	86,842
Economic	11,976,518	2,440,129	9,536,389
Environment	289,020	52,880	236,140
Non-Specialised	335,000	27,356	307,644
TOTAL	58,570,132	18,156,484	40,393,648

9.2 Service Level Summary

The levels of service and performance measures for building assets have not been determined but will be included in future versions of the AMP.

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 25. The ten asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 26: Asset performance indicators

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	33.50%	>100%	No	Building assets are ageing and significant investment and focus on renewals is required.

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory condition/ value of assets)	To assess the infrastructure backlog against the total value of council's infrastructure	1.89%	<2%	Yes	Majority of assets are in condition 3 or higher. Though assets are aging and will require further renewal expenditure.
Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	113%	>100%	Yes	Majority of assets are in condition 3 or higher. Although assets are aging and will require further maintenance expenditure.
Capital Expenditure Ratio (assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	1.9	>1.1	Yes	The first year meets the benchmark but after that there is a significant shortage.

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

- Appendix A Acronym Glossary
- Appendix B Projected 10 Year Capital Renewal, Replacement and New Works Program
- Appendix C Operational Expenditure
- Appendix D Forecast of Asset Ratios to Local Government benchmarks
- Appendix E Building Services Activity Risk Register
- Appendix F Glossary/ Definitions

Appendix A - Acronym Glossary

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost

Asset Management Plan – Buildings

Acronym	Definition
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value

Appendix B: Projected 10 year Capital Renewal, Replacement and New Works Program

PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
BUILDING CAPITAL PROJECTS																	
1200. Scn Depot Yard Upgrades	50%		50%	135,598	271,195	20,000	20,000	20,630	21,254	21,871	22,440	31,000	32,000	33,000	34,000	35,000	271,195
4206. Merriwa Depot Upgrades	50%		50%	85,057	170,113	20,000	15,000	15,468	15,924	16,367	16,785	17,213	17,652	18,102	18,564	19,038	170,113
0727. Admin Capital Works - Scn	50%		50%	56,378	112,756	10,000	10,000	10,300	10,583	10,848	11,119	11,397	11,682	11,974	12,273	12,580	112,756
4013. Upgrade Storage Facilities	50%		50%	25,400	50,800	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,800	5,000	50,800
1101. Hostel Air Conditioning Upgrade	50%		50%	-	-	10,000	-	-	-	-	-	-	-	-	-	-	-
4043. Hostel Room Upg on Changeover	50%		50%	28,190	56,380	2,500	5,000	5,150	5,292	5,424	5,560	5,699	5,841	5,987	6,137	6,290	56,380
4552. Bed & Furniture Replacement	50%		50%	45,000	90,000	10,000	-	-	-	-	30,000	-	30,000	-	30,000	-	90,000
4805. Hostel equipment upgrades	50%		50%	84,568	169,136	1,190	15,000	15,450	15,875	16,272	16,679	17,096	17,523	17,961	18,410	18,870	169,136
1027. Mdi ILU Replace Floor Coverings	50%		50%	8,750	17,500	2,500	2,500	3,000	-	3,000	-	3,000	-	3,000	-	3,000	17,500
1028. Mdi ILU Kitchen Upgrades	50%		50%	12,000	24,000	5,000	6,000	6,000	-	-	6,000	-	-	6,000	-	-	24,000
1029. Mwa ILU Replace Air Conditioner	50%		50%	2,250	4,500	2,500	-	1,500	-	-	1,500	-	-	1,500	-	-	4,500
1034. Mdi ILU Painting	50%		50%	12,000	24,000	1,500	2,000	3,000	-	4,000	-	5,000	-	5,000	-	5,000	24,000
1035. Mwa ILU Painting	50%		50%	6,500	13,000	1,500	2,000	3,000	-	-	-	-	4,000	-	-	4,000	13,000
1037. Mdi ILU Replace Air Conditioner	50%		50%	3,000	6,000	1,500	1,500	1,500	-	-	1,500	-	-	1,500	-	-	6,000
1040. Mwa ILU Kitchen Upgrades	50%		50%	12,000	24,000	1,000	6,000	-	-	6,000	-	-	6,000	-	-	6,000	24,000
1042. Mwa ILUs Bathroom upgrades	50%		50%	9,750	19,500	3,000	-	4,500	-	-	7,500	-	-	7,500	-	-	19,500

Asset Management Plan – Buildings



PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
1149. Mdi ILU Design 2 x Addtnl Units	50%	50%		-	-	266,100	-	-	-	-	-	-	-	-	-	-	-
1293. Mwa ILU Carport Installation	50%		50%	-	-	10,000	-	-	-	-	-	-	-	-	-	-	-
4832. Mwa ILU Floor Coverings	50%		50%	3,000	6,000	4,200	-	-	3,000	-	-	-	3,000	-	-	-	6,000
4833. Mdi ILU Bathroom Upgrades	50%		50%	12,000	24,000	6,500	-	-	9,000	-	-	7,500	-	-	7,500	-	24,000
4834. Mdi ILU Blinds	50%		50%	11,500	23,000	-	8,000	3,750	-	3,750	-	-	3,750	-	-	3,750	23,000
4836. Mdi ILU Stormwater Upgrade	50%		50%	-	-	10,000	-	-	-	-	-	-	-	-	-	-	-
4838. Mdi ILU Tank Stand Upgrades	50%		50%	9,000	18,000	2,000	-	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	18,000
4840. Mwa ILU Plumbing Upgrades	50%		50%	-	-	3,000	-	-	-	-	-	-	-	-	-	-	-
5429. MWA ILU Fire Alarm Systems	50%		50%	-	-	2,500	-	-	-	-	-	-	-	-	-	-	-
1030. ELC Painting Works	50%		50%	14,250	28,500	4,500	7,500	-	-	6,000	-	-	7,000	-	-	8,000	28,500
1112. Playground development	50%		50%	36,250	72,500	22,500	22,500	15,000	-	-	15,000	-	-	20,000	-	-	72,500
1165. ELC - Replace Whitegoods	50%		50%	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-
1290. Additional furniture and equipment	50%		50%	16,250	32,500	10,000	10,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	32,500
4820. ELC Air Conditioner Replacement	50%		50%	6,000	12,000	-	-	4,000	-	-	4,000	-	-	4,000	-	-	12,000
1167. Yth Ctr - Painting	50%		50%	28,500	57,000	-	-	13,000	-	14,000	-	-	15,000	-	-	15,000	57,000
4150. Residential Capital Works	50%		50%	10,000	20,000	-	20,000	-	-	-	-	-	-	-	-	-	20,000
4810. Youth Hostel Segenhoe - Air Conditioner	50%		50%	4,125	8,250	5,000	2,500	-	-	-	2,750	-	-	-	-	3,000	8,250

Asset Management Plan – Buildings



PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
4909. 7 Bottlebrush Place Scone	50%		50%	25,000	50,000	10,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	50,000
4952. Campbells Corner Scone		100%		-	-	125,000	-	-	-	-	-	-	-	-	-	-	-
5476. Campbells Corner Roofing		100%		-	-	175,110	-	-	-	-	-	-	-	-	-	-	-
5516. Campbells Corner Business Case	100%			-	-	50,000	-	-	-	-	-	-	-	-	-	-	-
5450. Emergency Housing Renovation Works	50%		50%	15,000	30,000	70,000	-	-	-	10,000	-	-	10,000	-	-	10,000	30,000
1036. Low income Housing Painting	50%		50%	8,250	16,500	1,500	1,500	-	5,000	-	-	5,000	-	-	5,000	-	16,500
1039. Low Income Replace Floor coverings	50%		50%	6,000	12,000	-	2,000	2,000	2,000	-	2,000	-	2,000	-	2,000	-	12,000
4842. Low Income Housing Air-Conditioner	50%		50%	3,000	6,000	2,500	1,500	1,500	-	-	1,500	-	-	1,500	-	-	6,000
8540. Low Income Laundry Upgrades	50%		50%	-	-	3,500	-	-	-	-	-	-	-	-	-	-	-
8541. Low Income Electrical Upgrades	50%		50%	-	-	1,500	-	-	-	-	-	-	-	-	-	-	-
5446. Abbotsford Park Wingen New Toilet Block	50%	50%		-	-	9,349	-	-	-	-	-	-	-	-	-	-	-
5457. Murrurundi SES Shed	50%	50%		-	-	38,302	-	-	-	-	-	-	-	-	-	-	-
5497. Scone Emergency Operations Centre	50%	50%		-	-	348,648	-	-	-	-	-	-	-	-	-	-	-
0730. Gummun RFS Shed	70%		30%	-	-	4,952	-	-	-	-	-	-	-	-	-	-	-
1317. Bow RFS Shed	70%		30%	-	-	5,800	-	-	-	-	-	-	-	-	-	-	-
1319. Idaville RFS Shed	50%	50%		-	-	30,000	-	-	-	-	-	-	-	-	-	-	-
1348. Dangarfield RFS Shed	50%	50%		-	-	30,000	-	-	-	-	-	-	-	-	-	-	-
5472. Cassilis RFS Shed	70%		30%	-	-	6,004	-	-	-	-	-	-	-	-	-	-	-

Asset Management Plan – Buildings



PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
1075. Abn Hall Upgrade	50%		50%	-	-	2,482	-	-	-	-	-	-	-	-	-	-	-
5342. Murrurundi War Memorial Gates	50%		50%	-	-	29,133	-	-	-	-	-	-	-	-	-	-	-
5365. Community Halls Revitalisation	50%		50%	50,000	100,000	-	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	100,000
5507. Cassilis Hall - District Nurse Room Upgrade	50%		50%	-	-	7,000	-	-	-	-	-	-	-	-	-	-	-
1067. Scn Museum - Minor upgrade works	50%		50%	21,750	43,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	43,500
1172. Museum Disabled Access Improvement	50%		50%	1,250	2,500	-	2,500	-	-	-	-	-	-	-	-	-	2,500
5430. Mwa Bottle Museum - Painting External	50%		50%	1,000	2,000	-	2,000	-	-	-	-	-	-	-	-	-	2,000
1227. Abn - Library Upgrade	50%		50%	15,000	30,000	10,000	-	-	-	10,000	-	-	10,000	-	-	10,000	30,000
1229. Additional Furniture	50%		50%	43,000	86,000	3,700	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	86,000
4824. Murrurundi Furnishings Upgrade	50%		50%	5,000	10,000	-	-	-	-	-	5,000	-	-	5,000	-	-	10,000
4825. Merriwa Furnishings Upgrade	50%		50%	15,000	30,000	-	-	-	-	10,000	-	-	10,000	-	-	10,000	30,000
4826. Scone Library Development	50%	50%		-	750,000	80,000	750,000	-	-	-	-	-	-	-	-	-	750,000
4830. Technology Upgrades	50%		50%	-	-	2,000	-	-	-	-	-	-	-	-	-	-	-
4831. Youth Resources	100%	0%		-	-	2,500	-	-	-	-	-	-	-	-	-	-	-
1348. Dangarfield RFS Shed	50%	50%		-	-	30,000	-	-	-	-	-	-	-	-	-	-	-
5472. Cassilis RFS Shed	70%		30%	-	-	6,004	-	-	-	-	-	-	-	-	-	-	-
1075. Abn Hall Upgrade	50%		50%	-	-	2,482	-	-	-	-	-	-	-	-	-	-	-

Asset Management Plan – Buildings



PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
5342. Murrurundi War Memorial Gates	50%		50%	-	-	29,133	-	-	-	-	-	-	-	-	-	-	-
5365. Community Halls Revitalisation	50%		50%	50,000	100,000	-	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	100,000
5507. Cassilis Hall - District Nurse Room Upgrade	50%		50%	-	-	7,000	-	-	-	-	-	-	-	-	-	-	-
1067. Scn Museum - Minor upgrade works	50%		50%	21,750	43,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	3,500	5,200	43,500
1172. Museum Disabled Access Improvement	50%		50%	1,250	2,500	-	2,500	-	-	-	-	-	-	-	-	-	2,500
5430. Mwa Bottle Museum - Painting External	50%		50%	1,000	2,000	-	2,000	-	-	-	-	-	-	-	-	-	2,000
1227. Abn - Library Upgrade	50%		50%	15,000	30,000	10,000	-	-	-	10,000	-	-	10,000	-	-	10,000	30,000
1229. Additional Furniture	50%		50%	43,000	86,000	3,700	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	86,000
4824. Murrurundi Furnishings Upgrade	50%		50%	5,000	10,000	-	-	-	-	-	5,000	-	-	5,000	-	-	10,000
4825. Merriwa Furnishings Upgrade	50%		50%	15,000	30,000	-	-	-	-	10,000	-	-	10,000	-	-	10,000	30,000
4826. Scone Library Development	50%	50%		-	750,000	80,000	750,000	-	-	-	-	-	-	-	-	-	750,000
4830. Technology Upgrades	50%		50%	-	-	2,000	-	-	-	-	-	-	-	-	-	-	-
4831. Youth Resources	100%	0%		-	-	2,500	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD						1,498,670	947,100	167,048	129,528	175,832	185,933	146,205	222,048	180,324	179,284	204,828	2,538,130
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				894,065													



Appendix C: Operational Expenditure

BUILDINGS OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Building Maintenance	39,600	40,000	41,275	42,536	43,778	44,892	46,034	47,205	48,406	49,638	50,501	454,265
Community Services & Education Building Maintenance	111,673	117,184	120,976	124,763	128,539	131,818	135,182	138,631	142,169	145,797	149,518	1,334,577
Economic Affairs Building Maintenance	77,910	117,910	114,500	118,098	121,619	125,049	128,217	131,466	134,797	138,213	141,716	145,308
Housing & Community Amenities Building Maintenance	14,750	13,800	14,225	14,635	15,027	15,405	15,793	16,191	16,598	17,016	17,445	156,135
Public Order & Safety Building Maintenance	18,200	19,450	20,056	20,647	21,222	21,764	22,321	22,892	23,477	24,078	24,693	220,600
Recreation & Culture Building Maintenance	24,470	24,400	25,177	25,947	26,709	27,394	28,097	28,817	29,557	30,315	31,053	277,466
Recreation & Culture Old Crt Theatre Building Maintenance	3,000	9,000	9,283	9,560	9,831	10,082	10,340	10,604	10,875	11,153	11,438	102,166
INDIRECT ASSET COSTS												
Depreciation	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	11,633,680
Administration Overheads	383,970	421,296	436,041	451,302	467,098	478,776	490,746	503,014	515,590	528,479	541,691	4,834,033
Utilities	822,249	846,436	871,830	895,803	918,199	941,153	964,684	988,800	1,013,521	1,038,858	1,064,829	9,544,113
Buildings - Loan Interest	317,858	281,398	257,916	231,300	204,555	175,796	145,512	114,897	94,632	85,870	71,444	1,663,320
TOTAL	2,977,048	3,054,242	3,074,647	3,097,959	3,119,945	3,135,497	3,150,294	3,165,885	3,192,990	3,232,785	3,267,696	31,491,940



Appendix D: Forecast of Asset Ratios to Local Government Benchmarks

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
INFRASTRUCTURE RENEWAL												
Asset Renewals	168,479	98,550	83,524	64,764	87,916	92,967	73,103	111,024	90,162	89,642	102,414	
Depreciation Expense	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	
INFRASTRUCTURE BACKLOG												
Estimated Cost to bring back to Satisfactory	317,268	385,152	391,834	397,015	404,048	411,485	417,334	426,215	433,428	440,600	448,793	
Closing Value of Assets	39,230,280	38,066,912	36,903,544	35,740,176	34,576,808	33,413,440	32,250,072	31,086,704	29,923,336	28,759,968	27,596,600	
ASSET MAINTENANCE												
Asset Maintenance Expense	289,603	341,744	345,492	356,186	366,725	376,404	385,984	395,806	405,879	416,210	426,364	
Required Asset Maintenance	599,003	607,489	608,324	608,972	609,851	610,780	611,511	612,622	613,523	614,420	615,444	
CAPITAL EXPENDITURE												
Annual Capital Expenditure	1,498,670	947,100	167,048	129,528	175,832	185,933	146,205	222,048	180,324	179,284	204,828	
Annual Depreciation Expense	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	1,163,368	
SS7 Data												
Gross Replacement Cost (GRC)	59,900,323	60,748,873	60,832,397	60,897,161	60,985,077	61,078,043	61,151,146	61,262,170	61,352,332	61,441,974	61,544,388	
% Infrastructure Condition 4 and above	0.22%	0.36%	0.37%	0.38%	0.40%	0.41%	0.42%	0.44%	0.45%	0.47%	0.48%	
% Infrastructure Condition 3 and above	2.65%	3.17%	3.22%	3.26%	3.31%	3.37%	3.41%	3.48%	3.53%	3.59%	3.65%	
RATIOS BASED ON 3YR AVERAGE												
	Benchmark											
Infrastructure Renewal	100%	27.47%	18.60%	10.04%	7.07%	6.77%	7.04%	7.28%	7.94%	7.86%	8.33%	8.09%
Infrastructure Backlog	2%	1.54%	1.25%	0.96%	1.06%	1.11%	1.17%	1.23%	1.30%	1.37%	1.45%	1.53%
Asset Maintenance	1.00	0.91	0.72	0.54	0.57	0.58	0.60	0.62	0.63	0.65	0.66	0.68
Capital Expenditure	1.10	1.84	1.33	0.75	0.36	0.14	0.14	0.15	0.16	0.16	0.17	0.16
ACTUAL RATIO MEETING BENCHMARK												
Infrastructure Renewal		X	X	X	X	X	X	X	X	X	X	X
Infrastructure Backlog		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Asset Maintenance		X	X	X	X	X	X	X	X	X	X	X
Capital Expenditure		✓	✓	X	X	X	X	X	X	X	X	X



Note: The infrastructure renewal and capital expenditure ratios are below suggested industry standards for period of the projected 10-year financial plan due to the nature of building assets and the minimal requirement for continual asset renewal works and capital expenditure to maintain the building asset class to a satisfactory standard.

Appendix E: Building Activity Risk Register

Risk	Consequence	Likelihood	Risk Rating	Proposed Treatment	Responsibility	Completion Date
Damage affecting structural performance	Moderate	Likely	High	SEPs are inspected on an annual basis and several proactive litter management programs are in place. A register of known flooding issues also exists in Council’s GIS that can be prioritised in terms of importance and remedied.	Operations	Ongoing
Load Limit signs missing, illegible or damaged making signs substantially ineffective	Major	Possible	High	Annual Flood Mitigation Program	Engineering, Strategic Assets	Ongoing
Broken timber deck plan	Moderate	Possible	High	Kerb renewal works and flood mitigation works	Engineering, Strategic Assets	Ongoing

Appendix F: Glossary

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components

or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an

asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost “As New” (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and

renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridge, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash

inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows,

Asset Management Plan – Buildings

where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC

Additional glossary items shown **

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2011	Initial draft	JB/GD	JB	JB
2	February 2013	Update asset inventory and financial data	JB/GD	JB	JB
3	March 2017	Update asset inventory and financial data	JB - GNS	JB WP ST	
4	April 2019	Update asset inventory and financial data	GNS/AG	JB	
5	June 2020	Update asset inventory and financial data	GNS/KW	JB	
6	June 2021	Update asset inventory and financial data	GNS/KW	JB	
7	April 2022	Update asset inventory and financial data	KW	JB	



Asset Management Plan

OPEN SPACE

2022

Asset Management Plan – Open Space

Date adopted by Council	27 June 2022
Minute number	SCR06.22
CM Ref	INT-23944/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population.</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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1 EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry. Council provides a network of ovals and open space in partnership with the Community to enable delivery of services, including sporting ovals, playgrounds, formal and passive reserves and open space to customers in the towns of Aberdeen, Merriwa, Murrurundi, Scone and villages within the Shire.

Council plans to operate and maintain its open space assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by this Open Space Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for open space operations, maintenance and capital over the next ten years will be approximately \$32.9 million (as shown in Figure 1) with annual forecasted expenditure varying between approximately \$3 to \$4 million per annum.

Forecasted operational expenditure (OPEX) for the ten-year cycle will be approximately \$28.3 million, which equates to 86% of the total forecasted expenditure. The Levels of Service (LOS) capital expenditure is for increasing the service level delivered by the assets.

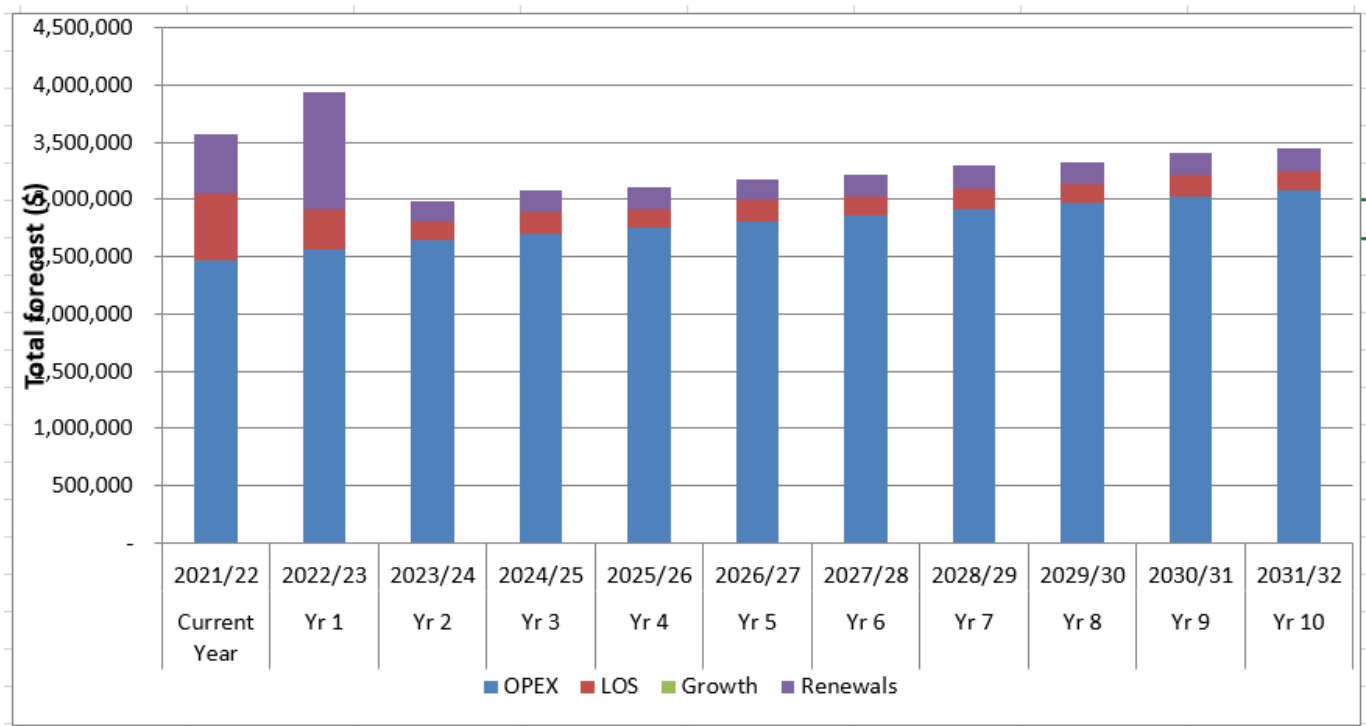


Figure 1: Summary of Open Space Total Expenditure Forecast

1.3 What we will do

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter Open Space assets to meet the service levels set in this plan
- Inspect the Open Space infrastructure annually to ensure that they are performing and reassess their condition grading
- Plan any works to address the defects found from asset inspections
- Plan renewals based on failure statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.
- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Poor or incomplete asset management practices including Asset Management Plans (AMP), lifecycle management plans (LCMP) and asset condition assessments.

Asset Management Plan – Open Space

- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Complete the actions identified in the Open Space AMP including lifecycle management plans (LCMP), complete the resourcing levels for Open Space Assets Services asset management and complete the asset condition survey.
- Complete the full revision of the Open Space AMP, complete the asset condition assessment program.
- Implement the asset management improvement program, continue with regular inspections and reporting on assets, start proactively analysing and reporting on data availability, start building core asset management capability and complete asset condition survey.

1.5 The Next Steps

The actions resulting from the Open Space AMP are:

- Complete the comprehensive condition survey of all open space assets.
- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the open space asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Start recording work history to assets in CONFIRM to improve renewal planning.
- Complete a formal AM Maturity Assessment of the open space assets.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.6 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council's assets range from roads and footpaths to buildings, playgrounds, bridge infrastructure and street furniture.

What is an Asset Management Plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset's life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however, excessive planned maintenance increases costs. An objective of asset management is to strategically time infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations, and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

What can you do?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

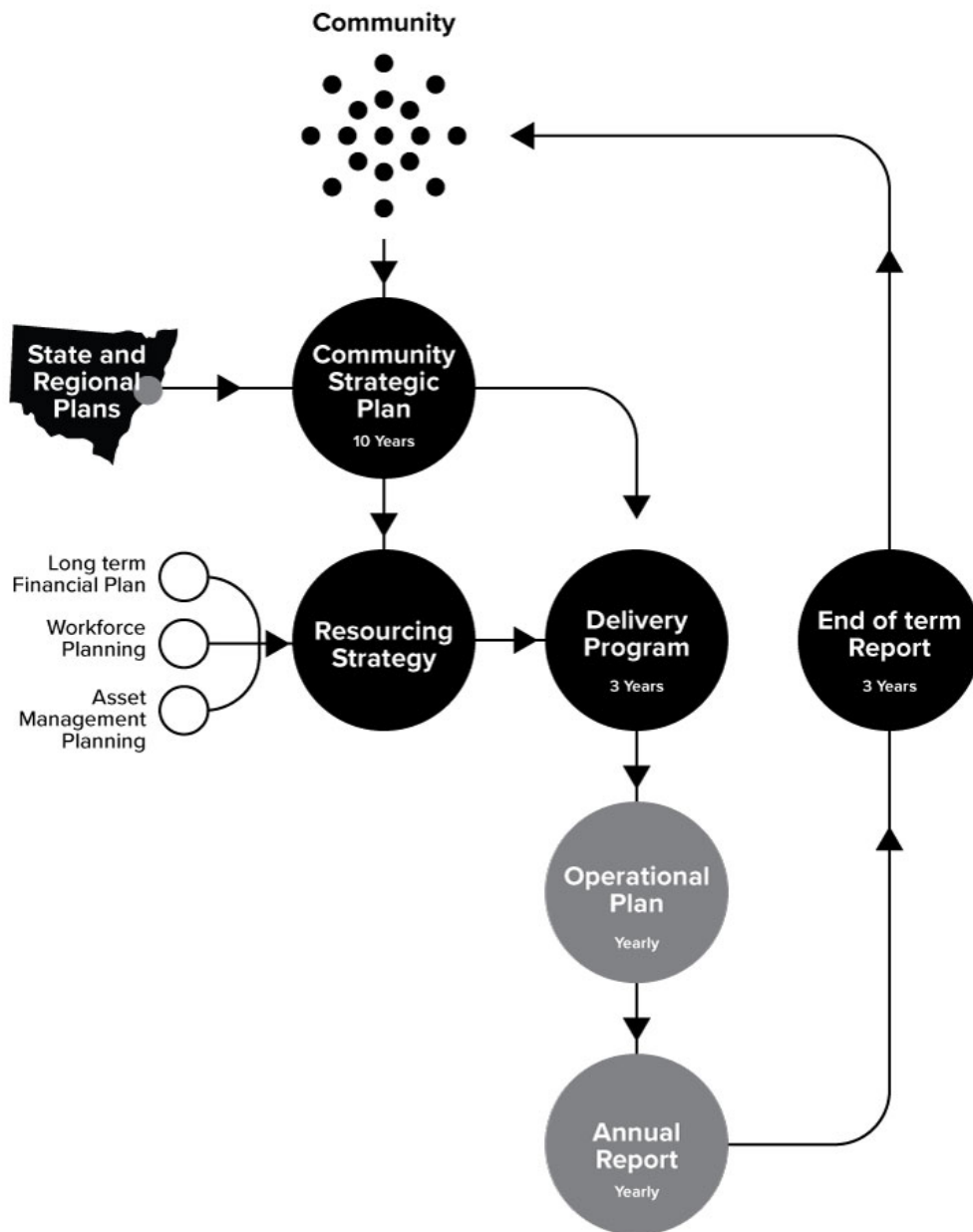
The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

Asset Management Plan – Open Space

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



3 INTRODUCTION

3.1 Background

About this Plan

The Open Space AMP is to demonstrate responsible 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 Open Space AMP is to be read with Council’s Asset Management Policy and Strategy and the following associated planning documents:

- Revised current year budget 2021/22
- Delivery Program 2018/2019-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation
- Council files on Open Space
- Upper Hunter Shire Council Resident Satisfaction Survey Results

3.1.1 Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². Council provides a network of ovals and open space in partnership with the Community to enable delivery of services, including sporting ovals, playgrounds, formal and passive reserves and open space to customers in the towns of Aberdeen, Merriwa, Murrurundi, Scone and villages in the local government area as shown in Figure 2.

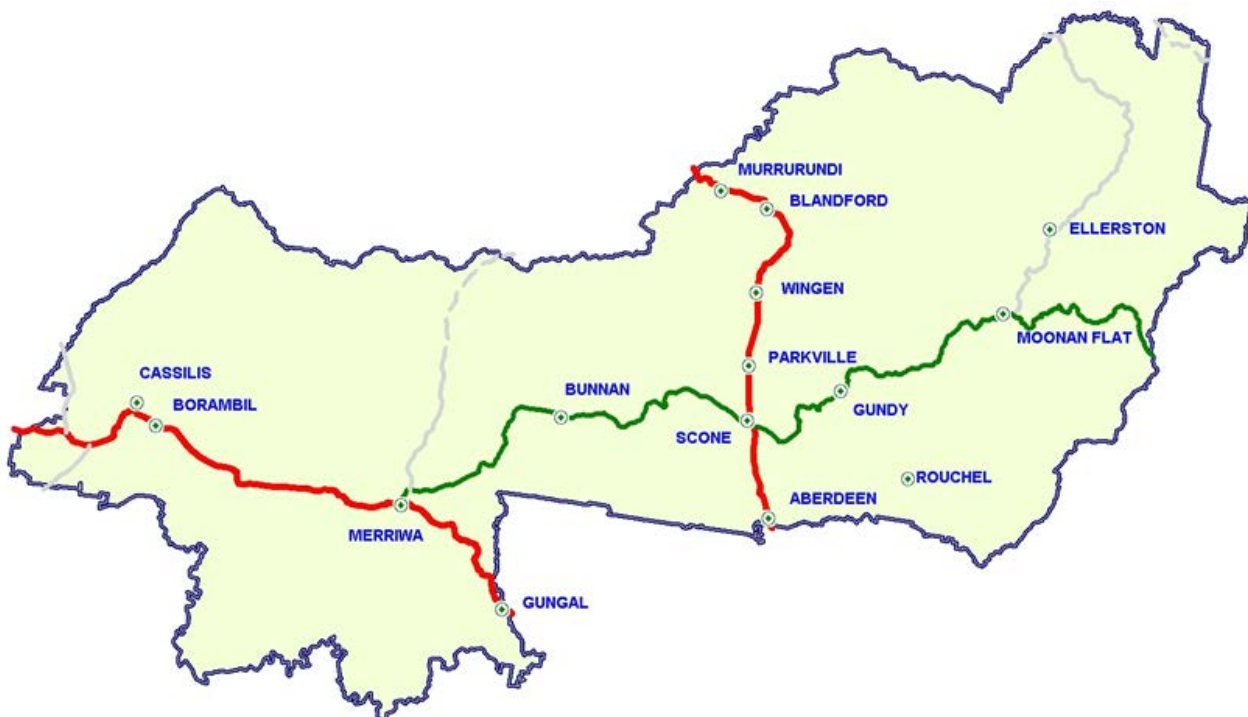


Figure 2: Map of Upper Hunter Shire Towns

Council’s open space assets comprise of:

Asset Management Plan – Open Space

- Playgrounds
- Active reserves
- Passive reserves
- Hard surface sporting facilities

Refer to sections 5 and 8 for open space asset details and valuation.

3.1.2 Our Stakeholders

Key stakeholders interested in open space assets are shown in Table 1.

Table 1: Key Stakeholders in Open Space Assets

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Field Services Staff	Provide local knowledge level detail on all assets (verify size, location and condition of assets)
Strategic Assets	Owner of Asset Management Policies and Strategies
Local Residents	Users of Council Assets and Services
Local Businesses	As User of Council Assets
	Future of new commercial and community growth
Land Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental groups	Interested in improvement to the natural environment and efficiency initiatives
Council’s Works Delivery Team	Interested in the coordination of the capital programs in the road corridor
State Government Departments	Development of local and regional strategies
	Provide financial assistance
Federal Government Departments	Development of State and Federal strategies
	Provide financial assistance

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failure
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

The Open Space AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032

Council’s goal is to achieve this in an efficient, cost effective manner while remaining ecologically sustainable and to investigate the future delivery of services.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”.

Our commitment to the Community

- We will deliver high quality, innovative, consistent and responsive services to the community
- We respect the rights of everyone to be treated fairly
- We will keep our community informed about Council services and financial position
- We will continually strive to improve our services to the community and encourage community engagement
- We will deliver increased effort in the protection of the environment

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 2.

Table 2: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Maintaining and developing our infrastructure network to meet the ongoing needs of our population	Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.	By sustainably managing the open space asset portfolio and by renewing and upgrading structures as required.
Developing and deepening connections of people to each other and their community.	Increase promotion of healthy lifestyle. Advocate for, support and provide services and facilities for the community.	By providing for the cost effective development, upgrade, renewal and maintenance of open space assets in the Shire.
		By proactively surveying the asset condition of our open space, we will understand and make long term plans for a sustainable infrastructure.
		By measuring the achievement of our service levels to our communities to ensure adequate provision.

4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. The most fundamental principle level of service is:

‘To provide the level of service the current and future community want, and are prepared to pay for, in the most cost effective manner.’

To achieve and maintain acceptable levels of service for Council’s open space network, a system of setting, recording and reviewing service levels achieved with the assistance of Community input is required. Future iterations of this plan will involve further and more detailed community consultation in this regard.

The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements.

4.1 Community Consultation

The Open Space AMP is prepared to facilitate community consultation initially through feedback on public display of draft AMPs prior to adoption by the Council.

Future revisions of the Open Space AMP will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company Micromex Research Consultants.

This survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of services. A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013, 2015 and 2017 using a mix of phone and face to face surveys. The results for open space services combined are summarised in Table 3 and show that the performance gap is reducing

Table 3: Survey results for Open Space Services

Year	Importance	Satisfaction	Performance Gap
2010 (ovals & sport grounds)	3.41	3.70	-0.29
2013 (ovals & sport grounds)	3.66	3.88	-0.22
2015 (Parks & playgrounds)	4.37	3.62	0.75
2015 (ovals & sport grounds)	4.30	3.94	0.36
2017 (parks & playgrounds)	4.27	3.47	0.80

Source: Community Research, Micromex Research (November 2017)

4.3 Strategic and Corporate Goals

The Open Space AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 4 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 6.2.

Table 4: Open Space Asset Objectives

Focus Areas	Objectives
Customer Service	Meet Levels of Service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area

Focus Areas	Objectives
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations as shown in Table 5.

Table 5: Legislative Requirements

Legislation	Requirement
Local Government Act, 1993 and Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
OLG Integrated Planning NSW	Key requirement is to integrated community plans with operational and delivery plans.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.
Road Transport (Safety and Traffic Management) Act 1999	Facilitates the adoption of nationally consistent road rules in NSW, the Australian Road Rules. It also makes provision for safety and traffic management on roads and road related areas including alcohol and other drug use, speeding and other dangerous driving, traffic control devices and vehicle safety accidents.
WHS Act and Regulations	Council must ensure a safe workplace for all its employees and the public
Disability Discrimination Act	Sets out the responsibilities of Council and staff dealing with access and use of public infrastructure.
Native Vegetation Act	Control the removal of native vegetation
AS 4422-2016	Specifications and requirements for playground surfacing
AS/NZS 4486-1997	Specifications and requirements for playground equipment
AS 4685 Parts 1-6, 2014	General and particular safety requirements and test methods.

4.5 Current Levels of Service

We have defined service levels in two terms.

Community Levels of Service

This measures how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

Quality	How good is the service?
Function	Does it meet user’s needs?
Capacity/Utilisation	Is the service over or under used?

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. equipment, sporting grounds).
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. sporting grounds, parks)
- Upgrade – the activities to provide a higher level of service (e.g. replacing equipment, upgrading sporting facilities).

The open space levels of service are summarised in Table 6. The full levels of service (LOS) table including performance measures and targets are detailed in Section 8.2.

Table 6: Community Level of Service

Key Service Attribute	Customer LOS
Safety	Provide safe, suitable facilities, free from hazards
Quality - reliability	Provide sporting and park facilities of an appropriate standard
Responsiveness	Responses are prompt, clear and work appropriately prioritised
Accessibility	Councils’ high use parks facilities to be accessible to all
Sustainable -Cost Effectiveness	Provide service in a cost effective manner
Function	Ensure that recreation facilities meet user requirements
Availability	Provision of appropriate levels of parks assets

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The open space asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

The rollout of open space assets to a number of new areas is considered during a review of councils Strategic Business Plan, which includes detailed and long term financial modelling of options for service extensions.

5 FUTURE DEMAND

5.1 The Shire’s Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 7 reflecting an average annual growth rate of -0.50 % pa.

Table 7: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Forecast

The key factors that directly impact the demand for open space infrastructure are:

- population growth
- demographic changes
- residential development
- extension of services to towns and villages.

Demand factor trends and impacts on service delivery are summarised in Table 8.

Table 8: Demand Factors

Demand factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council’s population in 2016 was 14,350	Upper Hunter Shire Council’s population is predicted to decline over the next 10 years.	Negative growth rate will have a small decrease in demand

Demand factor	Present position	Projection	Impact on services
Demographics	28.6% of the Shire’s population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand on services
Climate Change	Extremes increasing	More frequent extreme weather events and increased exposure to radiation effects.	More rapid deterioration of equipment, increasing frequency of inspections and maintenance and repairs.
	Awareness that climate change is occurring and its impact on water supply and usage.	Decreasing water supply and increasing demand. Onsite and catchment of stormwater, reuse and change to parks and gardens plantings due to water restrictions.	Stormwater capture and reuse infrastructure needed.
Ageing Assets	Currently reaching maturity	Deteriorating condition of assets	Increased demand for timely asset renewal and upgrade as assets begin to show increasing signs of wear and tear.

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 9.

Table 9: Changes to Technology

Technology Change	Effect on Service Delivery
Implementation of electronic asset management system	Key areas of concern in service delivery will be identified and addressed as implementation progresses and more data becomes available on level of service criteria. Service provision is also expected to become more efficient, enabling increased service delivery.

Technology Change	Effect on Service Delivery
Improvements in data capture, analysis and monitoring	Accurate and up-to-date asset registers will lead to more accurate works planning and financial data. This will enable a more pro-active approach in asset management.
Introduction of improved materials and manufacturing methods	Increased residual life and lower lifecycle costs
Lighting	Use of LED and more sustainable options
Further development of urban stormwater sensitive devices and techniques.	Reduce stormwater run-off and increase reuse on parks and sports fields

5.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 10. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 10: Demand Management Plan

SERVICE ACTIVITY	DEMAND MANAGEMENT PLAN
Community engagement	Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council’s Charter.
Customer requests	Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services
Development	Identify areas that may be subject to development
Capital Works	Schedule long term capital works plan.
Parks annual maintenance plan	Indicates all forecasted maintenance works within parks.
Planning	Support, provide and maintain community facilities as focal points for community involvement, learning, leisure and sporting activities.
	Develop a detailed plan of current and future parks, playgrounds, open spaces and verges. Use this as the basis for development of a long term forward plan.
	Planning and resource allocation strategy for reserve management. The plan should integrate the need for interconnected open spaces, vegetation corridors and pedestrian and cycle routes (linked to public transport nodes).
	Develop a simple audit methodology to track changes in the standard of parks and sporting facilities

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor. The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10 year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the Open Space AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019
- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

The lifecycle management plan details how Council plans to manage and operate the open space assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. The open space assets and culverts are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council's key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 3 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

Figure 3: Asset Lifecycle



6.1 Background Data

6.1.1 Physical parameters

The summary of the open space asset classes covered by this AMP are shown in Table 11. The most recent information available for the quantities and total values are detailed in Section 8.

Table 11: Open Space asset classes

Open Space Asset Class
Playground equipment
Parks & open space furniture
Sporting Grounds & Venues

6.1.2 Asset Capacity and Performance

Council’s services are generally provided to meet design standards where these are available.

Council’s open space assets would have been designed to meet the current standards applicable at the time of construction, taking into account forecast growth.

Locations where deficiencies in service performance are known are detailed in Table 12.

Table 12 - Known Service Performance Deficiencies

Location	Service Deficiency
Playgrounds	Some play equipment may not meet current standards in relation to user stimulation, shade, fall zones etc.
Irrigation	Automatic systems being used as manual systems

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, routine maintenance inspections and customer requests.

The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset. In taking these factors into account and the current revaluation cycle for assets Council has determined a condition inspection frequency for each asset class. The following inspection frequency has been adopted for each asset class for future condition surveys:

ASSET CLASS	INSPECTION FREQUENCY	
Playgrounds	100% every 2 years	External
Furniture	50% per year	Internal
Lights	100% every 4 years	External
Fences	50% per year	Internal
Monuments	100% every 2 years	Internal
Other structures	100% every 4 years	External

At present the condition of an asset is gauged by a visual rating system that assigns a condition rating on the asset based on how it appears to be functioning in providing its service to the community.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 13.

Table 13: Visual Condition Assessment

Rating Scale	Condition Description
1	Excellent - A near new asset with no visible signs of deterioration
2	Good - An asset in a very good overall condition but with some early stages of deterioration evident.
3	Fair - An asset in fair overall condition. Deterioration in condition would be obvious and there would be some serviceability loss.
4	Poor - An asset in poor overall condition. Deterioration would be quite severe and would be starting to limit the serviceability of the asset. Maintenance costs would be high.
5	Very Poor - An asset in extremely poor condition with severe serviceability problems and needing rehabilitation immediately. There would be an extreme risk in leaving the asset in service.

Condition assessment

A desktop assessment of asset condition has been completed for the purposes of developing this AMP using the following method:

- Age and remaining life (based on design life)
- Construction plans not yet updated in MapInfo
- 2012 survey information for the complex assets
- Council knowledge on a township and asset category basis.

This high level assessment of asset condition is summarised in Table 14. Note that the percentages are based on replacement costs.

Table 14: Assessed Open Space asset condition summary

Open Space asset class	Asset Condition Grade				
	1	2	3	4	5
Parks and Gardens	47.0%	26.0%	14.0%	11.0%	2.0%
Sporting Grounds & Venues	17.0%	47.0%	32.0%	4.0%	0.0%
Open Space Earthworks	100.0%	0.0%	0.0%	0.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised below. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

	Parks & Gardens (\$)	Sporting Grounds & Venues (\$)	Open Space Earthworks (\$)
Current Replacement Cost	5,652,488	21,611,868	3,853,000
Accumulated Depreciation	1,602,000	7,411,000	-
Written Down Value	4,050,000	14,201,000	3,853,000

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The written-down value of assets are based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle.

Asset revaluations are required to be completed by Councils on a 5 year cycle (at a minimum) in accordance with the “Local Government Code of Accounting Practice and Financial Reporting”. This revaluation considers the suitability of design, useful life and condition assessment of the asset components that are being revalued. It also uses industry specific data to estimate the current replacement cost of the assets held.

Useful lives were last reviewed in June 2021 as part of the revaluation process with the assets to be reviewed again in 2026/27 in line with the revaluation cycle as set by the Office of Local Government.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes
- NSW Reference rates used for most assets replacement cost estimate.

There has been no major variation to the revaluation processes since the last Council adopted Asset Management Plan other than the change in methodology for asset write-down from a straight line method to consumption usage method which provide a more realistic approach for the deterioration of the asset.

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to open space assets is to ensure that

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council's open space assets include:

- Public health and safety
- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, water damage or events such as accidents.

Risk identification for open space assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment/control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Options to treat risk posed by open space assets include (but not limited to):

- risk elimination.
- reduction in the cause or likelihood of the event occurring.
- reduction in the consequence or severity of the event if it were to occur.
- increasing the maintenance regime.
- initiating council improvements.
- changing operating processes and procedures.
- sharing the risk through insurance or contracts.
- doing nothing and accepting the risk.

Asset risks have been identified using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 15 shows the very high (VH), high (H), medium (M) and low (L) risks identified, the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 15 – Critical Risks and Treatment Plan

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
Playgrounds	Structural failure caused by the age and condition of equipment.	M	Maintain playgrounds to Australian standards through regular inspection and Maintenance
	Vandalism and or misuse of equipment, potentially making playground unsafe for usage.	M	Regular inspection and responses from CRS
	Discarded syringes left in the vicinity of playgrounds causing potential injury to users.	M	Regular inspection and responses from CRS
Irrigation	Vandalism to sprinklers, controllers.	L	Maintain current reactive procedure
	Water restrictions reducing the use of automatic systems	M	Maintain current procedure
	Controller failures	L	Maintain current reactive procedures and regular maintenance
	Over watering and protruding irrigation sprinkler heads affecting ground quality and public risk.	M	Maintain current procedures and maintenance of settings, controllers and reticulation equipment.
Parks Infrastructure	Vandalism	L	Maintain procedures and regular visual inspections and CRS responses
Oval Sporting and park lighting	Pole/tower failure	M	Conduct a detailed audit and annual inspections, vandal proof fittings

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

- Reactive maintenance** is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.

Asset Management Plan – Open Space

- **Planned maintenance** is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- **Cyclic maintenance** is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 16.

Table 16: Maintenance Expenditure Trends

Maintenance Expenditure	
Planned and Specific	Unplanned
70%	30%

Planned/cyclic maintenance work is approximately 70% of total maintenance expenditure depending on the frequency and intensity of natural disasters which occur during the year. It is Council's goal to increase this amount progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

Most assets are reaching their full useful life indicating that existing maintenance expenditure levels are adequate to meet required service levels.

The assessment and prioritisation of reactive maintenance is undertaken by Council staff using professional experience and judgement.

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

Asset Management Plan – Open Space

Operations and maintenance 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.

A high level criticality assessment was completed in 2015 for Council's infrastructural asset groups including open space assets. Different open space asset elements were assessed as high, medium or low criticality rating and are detailed in Table 17. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 17: Critical Open Space Assets

	High	Medium	Low
Size	Large	Medium	Small
Usage	Sporting	Passive	Pocket
Playgrounds	> 2	> 1	0
Amenities		> 1	
Off Leash dog park		Yes	
Adjacent to a waterway		Yes	

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff in accordance with the Council standard drawings and in accordance with the following Standards and Specifications.

- Disability Discrimination Act
- Playground Safety Standards
- Compliance with current regulations
- Decisions of Elected Members

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the asset stock, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

6.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the condition survey. The estimated service life ranges between 10 and 100 years depending on the asset group.

Renewals will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
 - evaluate the options against evaluation criteria adopted by Council
 - select the best option to be included in capital renewal programs
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

6.4.3 Renewal standards

Renewal work is always carried out in accordance with the following Standards and Specifications:

- Australian Standards for Playgrounds - AS4685, ASNZ 4422
- Pavement construction specifications

6.4.4 Summary of future renewal expenditure

Future renewal costs are forecast to increase over time as the asset stock ages and use increases. Renewals are to be funded from the council’s capital works program and grants where available, see appendix B.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.1 Selection criteria

New assets and upgrade/expansion of the existing open space assets are identified from the following:

- proposals identified by strategic plans or partnerships with other organisation;
- growth – increased development and potential flooding;
- known road or street flooding locations;
- poor condition, under capacity open space locations.

In preparing future works programs to upgrade/expand open spaces. consideration is given to the following:

- extent of flooding including potential damage and hazards;
- capacity and condition of the existing open space asset;
- strategic locations to improve the quality of access.

6.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. It is unlikely Council would consider disposing of any parks and sporting facility assets other than minor items such as obsolete playground equipment which would have little value other than for scrap metal.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the Open Space AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Note that expenditure forecasts (operational and capital) are based on the revised current year budget 2021/22 and the 2018/19 to 2022/23 DPOP.

The improvements proposed for condition monitoring and establishing more accurate useful lives for the open space assets will be an input into that process.

7.1 Financial Projections

7.1.1 Financial Summary Overview

The total amount of forecasted expenditure for the open space operations, maintenance and capital over the next ten years will be approximately \$32.9 million (as shown in Figure 4 and Table 19) with annual forecasted expenditure for most years varying between approximately \$3 to \$4 million per annum.

This expenditure is divided into two main categories being:

- Capital Expenditure (CAPEX), which is approximately \$4.6 million or 14% of total expenditure, and
- Operational Expenditure (OPEX), which is approximately \$28.3 million or 86% of total expenditure.

The CAPEX is further separated into three main subcategories being:

- Level of Service (LOS), which increases the service level delivered by the assets. This accounts for approximately \$1.9 million or 41% of total expenditure.
- Renewal, which replaces the assets as new. This equates to approximately \$2.7 million or 59% of total capital expenditure.

Asset Management Plan – Open Space

- Growth, refers to the expansion of the existing asset network. There is no expenditure allocated to growth in the next ten years.

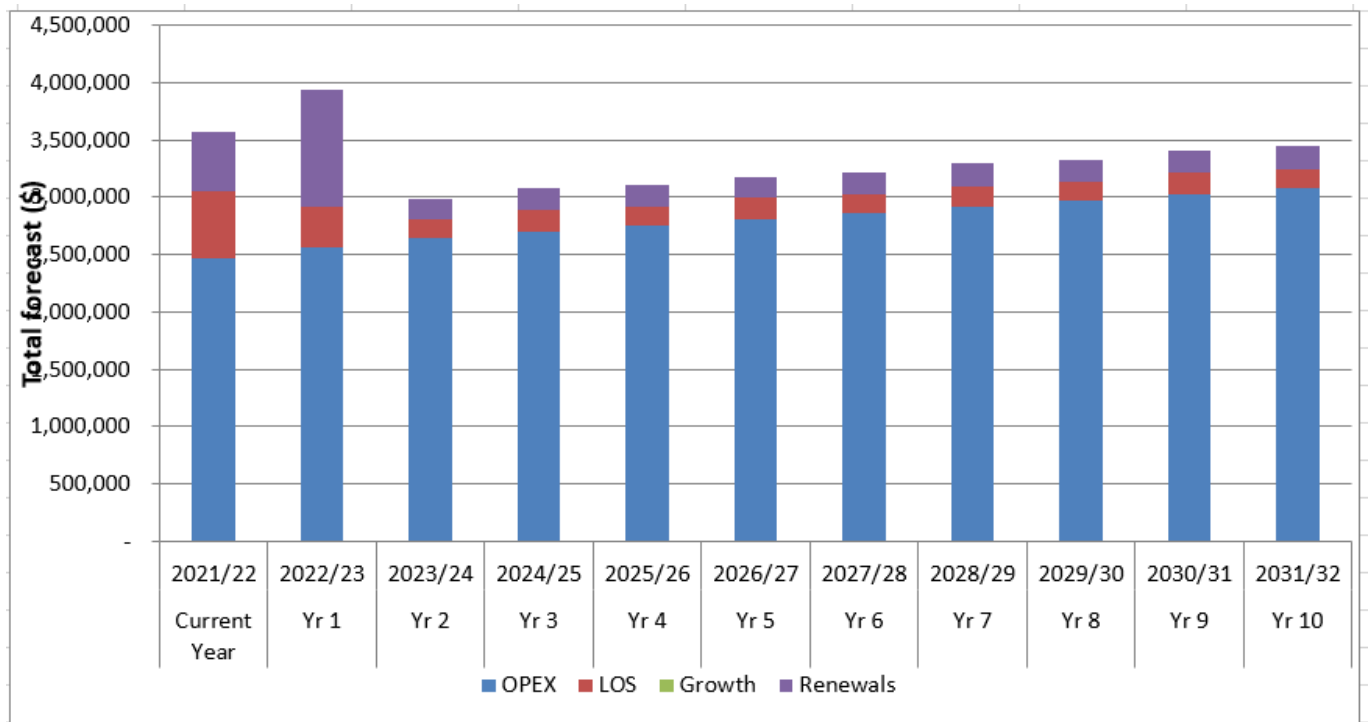


Figure 4: Summary of Open Space Total Expenditure Forecast



Table 19: Summary of Open Space Total Expenditure Forecast

OPEN SPACE OPEX SUMMARY	CURRENT 2021/22	Yr 1 2022/23	Yr 2 2023/24	Yr 3 2024/25	Yr 4 2025/26	Yr 5 2026/27	Yr 6 2027/28	Yr 7 2028/29	Yr 8 2029/30	Yr 9 2030/31	Yr 10 2031/32	10 Year Total
OPEX	2,465,968	2,567,855	2,646,962	2,705,888	2,757,055	2,807,631	2,859,529	2,912,783	2,967,834	3,025,944	3,085,700	28,337,181
LOS	590,082	351,667	160,632	186,256	161,872	187,440	163,024	188,620	164,236	189,868	165,512	1,919,127
Growth	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	514,936	1,020,458	180,000	182,500	184,500	187,000	189,000	191,500	193,500	196,000	198,000	2,722,458
TOTAL	3,570,986	3,939,979	2,987,594	3,074,644	3,103,427	3,182,071	3,211,553	3,292,903	3,325,570	3,411,812	3,449,212	32,978,765

7.1.2 Operational expenditure summary

The recommended ten year operational expenditure forecast is shown in Table 20 with \$28.3 million forecast over the next ten years. This shows that, costs associated with sports grounds is 58% of the total operation expenditure followed by costs associated with passive parks and gardens at 36% and costs associated with White Park Complex at 6%.

Table 20: Summary of Open Space Operational Expenditure

OPEN SPACE OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	17,500	17,700	18,282	18,872	19,471	19,977	20,496	21,029	21,576	22,137	22,713	202,253
Staff Training	10,000	10,250	10,583	10,913	11,241	11,523	11,813	12,109	12,414	12,725	13,045	116,616
Utilities	356,380	374,165	385,390	395,989	405,888	416,034	426,436	437,097	448,024	459,225	470,706	4,218,954
Tree Maintenance/Management	80,000	84,575	87,292	90,017	92,747	95,164	97,644	100,189	102,801	105,481	108,232	964,142
Passive Parks & Reserves	450,000	461,250	476,625	492,330	508,368	521,525	535,024	548,875	563,087	577,668	592,629	5,277,381
Yards & Facility Maintenance	135,000	100,712	104,024	107,372	110,753	113,597	116,514	119,507	122,576	125,725	128,955	1,149,735
Sporting Grounds	518,500	527,000	565,010	582,797	592,854	608,550	624,664	641,208	658,193	675,632	693,536	6,169,444
Mobile Amenities	17,500	17,500	18,075	18,663	19,263	19,772	20,294	20,830	21,381	21,946	22,527	200,251
INDIRECT ASSET COSTS												
Depreciation	634,145	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	7,073,340
Administration Overheads	231,277	253,562	262,436	271,622	281,128	288,157	295,361	302,745	310,314	318,071	326,023	2,909,419
White Park Redevelopment No1 - Loan Interest	15,666	13,807	11,911	9,979	8,008	5,998	3,949	1,860	134	-	-	55,646
TOTAL	2,465,968	2,567,855	2,646,962	2,705,888	2,757,055	2,807,631	2,859,529	2,912,783	2,967,834	3,025,944	3,085,700	28,337,181

7.1.3 Capital expenditure

There is a total of \$4.6 million for capital expenditure for the next ten years as shown in Table 19. It is estimated that 59% of the capital expenditure is for renewals and total annual renewals are approximately \$272,245 per annum. It is estimated that 41% of the capital expenditure is for new works LOS.

The full capital expenditure program is detailed in Appendix B.

7.2 Forecast Reliability and Confidence

The expenditure and valuations projections in the Open Space AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 21.

Table 21: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in Open Space Assets Services AMP is shown in Table 22.

Table 22: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C	
Growth projections	C	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.

Data	Confidence Assessment	Comment
Projected Renewal exps.		
- Asset values	B	Asset revaluation completed in June 2021. Major revaluation scheduled for every five years and due 2026.
- Asset useful lives	B	Useful lives are currently being reviewed.
- Condition modelling	E	There has been limited condition information collected and therefore no modelling undertaken to date.
- Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
- Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally, as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as uncertain confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

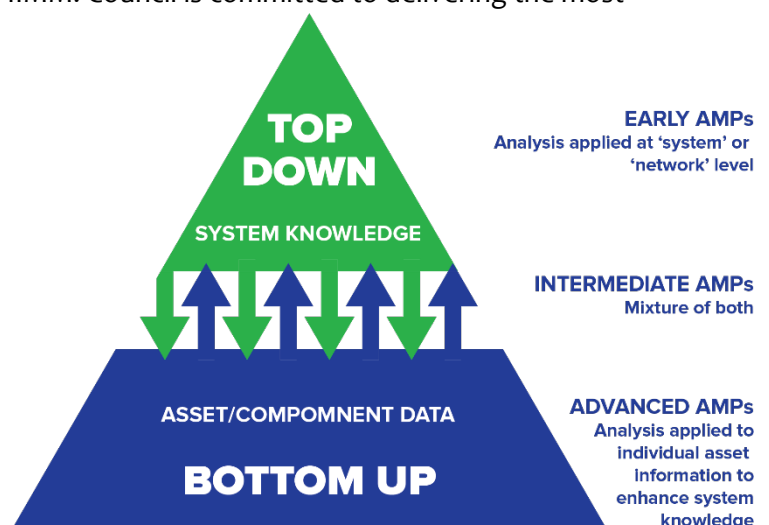
Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 4.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a



‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels:

Figure 4: Core versus advanced asset management status

8.1.1 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate & Community Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year’s achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council’s maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the open space assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are capitalised.

Required changes to accounting financial systems arising from this AMP

Areas that need to be investigated include establishing an integrated work orders system for open space assets. This will allow for a thorough costing of the planned, cyclic and reactive maintenance tasks in the open space system. This process is well advanced for other sections of Council, and now needs to be extended to the open space System.

8.1.2 Asset registers and management systems

Currently CONFIRM is used, supplemented by spreadsheets and Content Manager documentation. There is a need to obtain more sophisticated reports from CONFIRM, and also to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded
- The link between the financial plan, asset plan and the works order system will be addressed in the future

Asset Management Plan – Open Space

- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.
- Asset updates are mainly undertaken for audit reporting purposes rather than for long term asset management planning. A sound and complete asset inventory is essential for Council to manage open space services sustainably. This is recognised as a very high improvement task.

8.2 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The improvement programme is summarised in Table 23.

Table 23: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2021/22	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the open space asset inventory, collection of asset repair data, and updating asset condition assessment records.	2021/22	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the open space assets.	2021/22	High	Strategic Assets, Works Delivery
	Revise and improve the effectiveness of the current open space renewal program	2021/22	High	Strategic Assets
Risk management	Audit existing playgrounds, investigate other design and locations, liaise with appropriate bodies, and ensure appropriate training for damage in relation to unsuitability of playgrounds in all open reserves	2021/22	High	Strategic Assets, Internal Auditor/Risk Coordinator
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	High	Strategic Assets, Information Technology, Works Delivery

8.3 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans

9 LATEST ASSET and LOS INFORMATION

9.1 Open Space asset summary

A summary of the Shire’s Open Space asset class values is below as at 30 June 2021 from Council’s Asset Register.

Table 24: Value of Open Space asset classes

Open Space Asset Class	Current Replacement Value (\$)	Accumulated Depreciation (\$)	Written Down Value (WDV) (\$)
Parks & Gardens	5,652,488	1,602,488	4,050,000
Sporting Grounds & Venues	21,611,868	7,410,868	14,201,000
Earthworks	3,853,000	-	3,853,000
TOTAL	31,117,356	9,013,356	22,104,000

Source: Council’s Asset Register (as at 30 June 2021)

9.2 Service Level Summary

The levels of service and performance measures for open space assets are summarised in Table 25.

Table 25: Open Space Services Level and Performance Measure Summary

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
Quality	Assets are of a suitable quality and quantity	Number of justified complaints of unsatisfactory condition per annum	Less than 10 valid complaints per year	Meeting target
Quality	Satisfactory condition	Assets are maintained in good condition	>90%	Meeting Target
Safety	No hazards caused by defective or damaged assets	Equipment upgraded to meet assessment report	Achieved	Achieved

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 26. The ten year asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 26: Asset performance indicators

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	64.92%	>100%	No	The average renewal expenditure planned over the next ten years is \$272,245 per annum and the average depreciation is \$707,334 (ie. 38% infrastructure ratio)
Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory condition/ value of assets)	To assess the infrastructure backlog against the total value of council’s infrastructure	5.66%	<2%	No	Significant capital expenditure with a focus on renewals is required.
Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	144%	>100%	Yes	Council’s open space assets met the required planned maintenance in 2020/21.
Capital Expenditure Ratio					

Asset Management Plan – Open Space

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
(assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	1.81	>1.1	Yes	Capital expenditure planned over the next ten year meets target until 2024/25 which then declines and the benchmarks are not met.

Specifically the Infrastructure Renewals Ratio for 2020/21 for open space infrastructure was as follows:

- Renewals were \$459,229
- Depreciation was \$707,334
- Ratio was 64.92% which was lower than the benchmark for open space assets

Specifically the Infrastructure Backlog Ratio for 2020/21 for open space assets was as follows:

- Estimated cost to bring open space assets back to a satisfactory standard is \$1,250,000 (based on the condition assessment of the open space assets)
- Gross replacement cost of the open space asset infrastructure was \$31,117,356
- Ratio is 5.66% which does not meet the benchmark for open space infrastructure

Specifically the Asset Maintenance Ratio for 2020/21 for open space assets is as follows:

- Actual maintenance was \$1,710,000
- Required maintenance was \$1,186,000 (based on condition assessment of the open space asset)
- Ratio was 144% so therefore maintenance is on target for open space infrastructure

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

- Appendix A Acronym Glossary
- Appendix B Projected 10 Year Capital Renewal, Replacement and New Works Program
- Appendix C Operational Expenditure
- Appendix D Forecast of Asset Ratios to Local Government benchmarks
- Appendix E Open Space Services Activity Risk Register
- Appendix F Glossary/ Definitions

Appendix A - Acronym Glossary

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value



Appendix B – Projected 10 Year Capital Renewal, Replacement and New Works Program

PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	CURRENT YR	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	TOTAL 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
PARKS AND GARDENS CAPITAL PROJECTS																	
0709. Tree Planting Scn	100%			-	56,865	5,000	5,000	5,158	5,314	5,468	5,610	5,756	5,905	6,059	6,217	6,378	56,865
0802. Tree Planting Abn	100%			-	56,865	5,000	5,000	5,158	5,314	5,468	5,610	5,756	5,905	6,059	6,217	6,378	56,865
0803. Tree Planting Mwa	100%			-	56,865	5,000	5,000	5,158	5,314	5,468	5,610	5,756	5,905	6,059	6,217	6,378	56,865
0804. Tree Planting Mdi	100%			-	56,865	5,000	5,000	5,158	5,314	5,468	5,610	5,756	5,905	6,059	6,217	6,378	56,865
1254. Playground Shade & Equipment Grant	100%			-	123,064	-	23,064	-	25,000	-	25,000	-	25,000	-	25,000	-	123,064
4505. Playground Equipment upgrade			100%	657,000	657,000	-	45,000	60,000	62,000	64,000	66,000	68,000	70,000	72,000	74,000	76,000	657,000
5273. Playground Fencing			100%	110,000	110,000	10,000	10,000	10,000	10,500	10,500	11,000	11,000	11,500	11,500	12,000	12,000	110,000
5442. Aberdeen River Walk	100%			-	-	20,837	-	-	-	-	-	-	-	-	-	-	-
5478. Merriwa Driver Reviver Facility	100%			-	-	16,637	-	-	-	-	-	-	-	-	-	-	-
5483. Cassilis Hall and Playground Upgrade	50%		50%	-	-	113,335	-	-	-	-	-	-	-	-	-	-	-
5499. Community Garden	100%			-	-	10,000	-	-	-	-	-	-	-	-	-	-	-
5503. Merriwa Driver Reviver Additional Works	100%			-	-	56,379	-	-	-	-	-	-	-	-	-	-	-
5521. Amaroo Park Playspace	50%		50%	69,819	139,637	8,500	139,637	-	-	-	-	-	-	-	-	-	139,637
WHITE PARK COMPLEX CAPITAL PROJECTS																	
0847. White Park Development	80%		20%	90,000	450,000		-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	450,000
5473. White Park Electrical Supply Upgrade			100%	700,000	700,000	140,257	700,000				-	-	-	-	-	-	700,000
5509. Catwalk adjoining lane-Campdraft Yards	80%		20%	-	-	16,200					-	-	-	-	-	-	-
5517. White Park Complex Business Case	100%			-	43,145	50,000	43,145				-	-	-	-	-	-	43,145
SPORTING GROUNDS & VENUES CAPITAL PROJECTS																	
0827. Bill Rose Complex Master Plan	100%			-	50,000	50,000	-					-	-	-	-	-	-
4109. Mwa Showground Upgrade	50%		50%	34,241	68,482	68,482	-	-	-	-	-	-	-	-	-	-	-
4701. Jefferson Park Reserve	50%		50%	925,000	1,850,000	-	50,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,850,000
5359. Murray Bain Oval Lighting Upgrade	50%		50%	75,000	150,000	-	150,000	-	-	-	-	-	-	-	-	-	150,000
5420. Scone Tennis Club Courts Resurfacing	50%		50%	95,639	191,278	-	191,278	-	-	-	-	-	-	-	-	-	191,278
5441. Murrurundi Youth Park	50%		50%	-	-	27,076	-	-	-	-	-	-	-	-	-	-	-
5444. Rouchel Tennis Courts - Upgrade	50%		50%	-	-	17,188	-	-	-	-	-	-	-	-	-	-	-
5445. Gundy Tennis Courts - Upgrade	50%		50%	-	-	24,874	-	-	-	-	-	-	-	-	-	-	-
5477. McKinnon Oval Facility Upgrade (SCCF3)			100%	-	-	20,266	-	-	-	-	-	-	-	-	-	-	-
5484. Wilson Memorial Oval Upgrades	50%		50%	-	-	99,157	-	-	-	-	-	-	-	-	-	-	-

Asset Management Plan – Open Space



PROJECT DESCRIPTION	TYPE OF WORKS			COST OF RENEWALS	TOTALS	CURRENT YR	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	TOTAL 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
5485. Wilson Memorial Oval Grandstand	100%			-	-	12,096	-	-	-	-	-	-	-	-	-	-	-
5488. Mwa Showground Campdraft Yards Upgrade	50%		50%	-	-	174,971	-	-	-	-	-	-	-	-	-	-	-
5490. Merriwa Race Course Amenities Upgrade	50%		50%	-	-	148,763	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD					4,641,584	200,000	1,372,124	340,632	368,756	346,372	374,440	352,024	380,120	357,736	385,868	363,512	4,641,584
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				2,756,699													



Appendix C – Operational Expenditure

OPEN SPACE OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	17,500	17,700	18,282	18,872	19,471	19,977	20,496	21,029	21,576	22,137	22,713	202,253
Staff Training	10,000	10,250	10,583	10,913	11,241	11,523	11,813	12,109	12,414	12,725	13,045	116,616
Utilities	356,380	374,165	385,390	395,989	405,888	416,034	426,436	437,097	448,024	459,225	470,706	4,218,954
Tree Maintenance/Management	80,000	84,575	87,292	90,017	92,747	95,164	97,644	100,189	102,801	105,481	108,232	964,142
Passive Parks & Reserves	450,000	461,250	476,625	492,330	508,368	521,525	535,024	548,875	563,087	577,668	592,629	5,277,381
Yards & Facility Maintenance	135,000	100,712	104,024	107,372	110,753	113,597	116,514	119,507	122,576	125,725	128,955	1,149,735
Sporting Grounds	518,500	527,000	565,010	582,797	592,854	608,550	624,664	641,208	658,193	675,632	693,536	6,169,444
Mobile Amenities	17,500	17,500	18,075	18,663	19,263	19,772	20,294	20,830	21,381	21,946	22,527	200,251
INDIRECT ASSET COSTS												
Depreciation	634,145	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	7,073,340
Administration Overheads	231,277	253,562	262,436	271,622	281,128	288,157	295,361	302,745	310,314	318,071	326,023	2,909,419
White Park Redevelopment No1 - Loan Interest	15,666	13,807	11,911	9,979	8,008	5,998	3,949	1,860	134	-	-	55,646
TOTAL	2,465,968	2,567,855	2,646,962	2,705,888	2,757,055	2,807,631	2,859,529	2,912,783	2,967,834	3,025,944	3,085,700	28,337,181

PARKS & GARDENS OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	8,000	8,200	8,472	8,747	9,026	9,257	9,494	9,738	9,987	10,243	10,506	93,670
Utilities	10,000	10,250	10,583	10,913	11,241	11,523	11,813	12,109	12,414	12,725	13,045	116,616
Tree Maintenance/Management	84,380	86,490	89,085	91,535	93,823	96,168	98,573	101,037	103,563	106,152	108,806	975,232
Passive Parks & Reserves	80,000	84,575	87,292	90,017	92,747	95,164	97,644	100,189	102,801	105,481	108,232	964,142
INDIRECT ASSET COSTS												
Depreciation	122,182	144,069	144,069	144,069	144,069	144,069	144,069	144,069	144,069	144,069	144,069	1,440,690
Administration Overheads	109,053	119,267	123,441	127,762	132,233	135,539	138,928	142,401	145,961	149,610	153,350	1,368,492
TOTAL	863,615	914,101	939,567	965,373	991,507	1,013,245	1,035,545	1,058,418	1,081,882	1,105,948	1,130,637	10,236,223



WHITE PARK COMPLEX OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Utilities	30,000	30,600	32,404	34,612	45,939	49,887	53,847	57,818	61,801	65,796	67,441	500,145
Yards & Facility Maintenance	135,000	137,450	139,947	156,878	174,789	192,768	205,818	218,941	232,137	245,410	251,545	1,955,683
INDIRECT ASSET COSTS												
White Park Redevelopment No1 - Loan Interest	15,666	13,807	11,911	9,979	8,008	5,998	3,949	1,860	134	-	-	55,646
White Park Redevelopment No2 - Loan Interest	-	-	49,272	47,300	45,280	43,208	41,084	38,906	36,673	34,384	32,037	368,144
TOTAL	180,666	181,857	233,534	248,769	274,016	291,861	304,698	317,525	330,745	345,590	351,023	2,879,618

SPORTING GROUNDS & VENUES OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	9,500	9,665	9,833	10,004	10,216	10,432	10,653	10,880	11,112	11,349	11,633	105,777
Utilities	242,000	246,840	251,777	256,812	263,233	269,813	276,559	283,473	290,560	297,824	305,269	2,742,159
Sporting Grounds	518,500	527,170	535,996	544,982	555,979	567,225	578,726	590,487	602,515	614,817	630,187	5,748,087
Mobile Amenities	17,500	17,800	18,106	18,417	18,800	19,192	19,593	20,003	20,423	20,852	21,373	194,557
INDIRECT ASSET COSTS												
Depreciation	511,963	511,963	511,963	511,963	511,963	511,963	511,963	511,963	511,963	511,963	511,963	5,119,630
Administration Overheads	122,224	125,334	127,818	130,454	133,569	136,869	140,360	143,696	144,671	148,428	152,139	1,383,338
TOTAL	1,421,687	1,438,772	1,455,493	1,472,632	1,493,760	1,515,495	1,537,854	1,560,502	1,581,243	1,605,232	1,632,564	15,293,547

Appendix D - Forecast of Asset Ratios to Local Government Benchmarks



	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
INFRASTRUCTURE RENEWAL												
Asset Renewals	514,936	1,020,458	180,000	182,500	184,500	187,000	189,000	191,500	193,500	196,000	198,000	
Depreciation Expense	634,145	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	
INFRASTRUCTURE BACKLOG												
Estimated Cost to bring back to Satisfactory	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	2,369,341	
Closing Value of Assets	22,574,873	23,239,663	22,872,961	22,534,383	22,173,421	21,840,527	21,485,217	21,158,003	20,808,405	20,486,939	20,143,117	
ASSET MAINTENANCE												
Asset Maintenance Expense	1,584,880	1,593,152	1,665,281	1,716,953	1,760,585	1,806,142	1,852,885	1,900,844	1,950,052	2,000,539	2,052,343	
Required Asset Maintenance	322,224	335,945	339,351	343,039	346,503	350,247	353,767	357,568	361,146	365,004	368,640	
CAPITAL EXPENDITURE												
Annual Capital Expenditure	1,105,018	1,372,124	340,632	368,756	346,372	374,440	352,024	380,120	357,736	385,868	363,512	
Annual Depreciation Expense	634,145	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	707,334	
SS7 Data												
Gross Replacement Cost (GRC)	32,222,374	33,594,498	33,935,130	34,303,886	34,650,258	35,024,698	35,376,722	35,756,842	36,114,578	36,500,446	36,863,958	
% Infrastructure Condition 4 and above	4.92%	4.68%	4.57%	4.46%	4.36%	4.26%	4.16%	4.07%	3.98%	3.98%	3.90%	
% Infrastructure Condition 3 and above	28.63%	27.23%	26.58%	25.94%	25.35%	24.76%	24.22%	23.68%	23.18%	23.17%	22.70%	
RATIOS BASED ON 3YR AVERAGE												
	Benchmark											
Infrastructure Renewal	100%	78.90%	97.36%	83.73%	65.17%	25.78%	26.11%	26.41%	26.74%	27.05%	27.38%	27.69%
Infrastructure Backlog	2%	7.70%	8.82%	10.35%	10.35%	10.52%	10.68%	10.85%	11.02%	11.20%	11.38%	11.57%
Asset Maintenance	1.00	1.79	2.65	4.86	4.89	5.00	5.08	5.16	5.24	5.32	5.40	5.48
Capital Expenditure	1.10	1.71	1.84	1.38	0.98	0.50	0.51	0.51	0.52	0.51	0.53	0.52
ACTUAL RATIO MEETING BENCHMARK												
Infrastructure Renewal		X	X	X	X	X	X	X	X	X	X	X
Infrastructure Backlog		X	X	X	X	X	X	X	X	X	X	X
Asset Maintenance		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Capital Expenditure		✓	✓	✓	X	X	X	X	X	X	X	X

Appendix E - Open Space Activity Risk Register

Risk	Consequence	Likelihood	Risk Rating	Proposed Treatment	Responsibility	Completion Date
Natural Disaster	Massive	Unlikely	High	Manage through existing systems and procedures	Emergency Response Plan	n/a
Injury sustained as a result of inadequate asset management	Moderate	Unlikely	Moderate	Robust asset management policy and plans Regular inspection program Maintenance program to address defects	Engineering, Strategy and Assets Open Space, Recreation and Property	Ongoing
Injury sustained whilst work is occurring to renew or replace an Open Space a	Major	Unlikely	High	Contractor management procedures Regular site inspections and monitoring Construction risk assessments	Engineering, Strategy and Assets Open Space, Recreation and Property	Ongoing

Appendix F – Glossary/Definitions

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to

that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost “As New” (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and

renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridge, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash

inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows,

Asset Management Plan – Open Space

where if deprived of the asset its future economic benefits would be replaced.

*Note: Items shown * modified to use DA instead of CRC*

*Additional glossary items shown ***

Source: DVC 2006, Glossary

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2011	Initial draft	JB/GD	JB	JB
2	February 2013	Update asset inventory and financial data	JB/GD	JB	JB
3	March 2017	Update Assets, Financials & Information	JB – GNS		
4	May 2020	Update Assets, Financials & Information	JB – GNS		
5	June 2021	Update Assets, Financials & Information	JB/GD	JB	JB
6	February 2022	Update Assets, Financials & Information	KW	JB	



Asset Management Plan

SWIMMING POOLS, AERODROME & SALEYARDS

2022

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards

Date adopted by Council	27 June 2022
Minute number	SCR06.22
CM Ref	INT-23951/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population.</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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1 EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry.

- Council supplies swimming pools for the residents and general public in Murrurundi, Merriwa and Scone, which also caters for the shire and wider area.
- Council provides aerodrome and associated facilities to residential, commercial and industrial customers in Scone, which also caters for the shire and wider area.
- Council provides saleyards and associated facilities to residential, commercial and industrial customers in Scone, which also caters for the shire and wider area.

Council plans to operate and maintain its swimming pool, aerodrome and saleyards assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by Swimming Pool, Aerodrome and Saleyards (SAS) Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets.

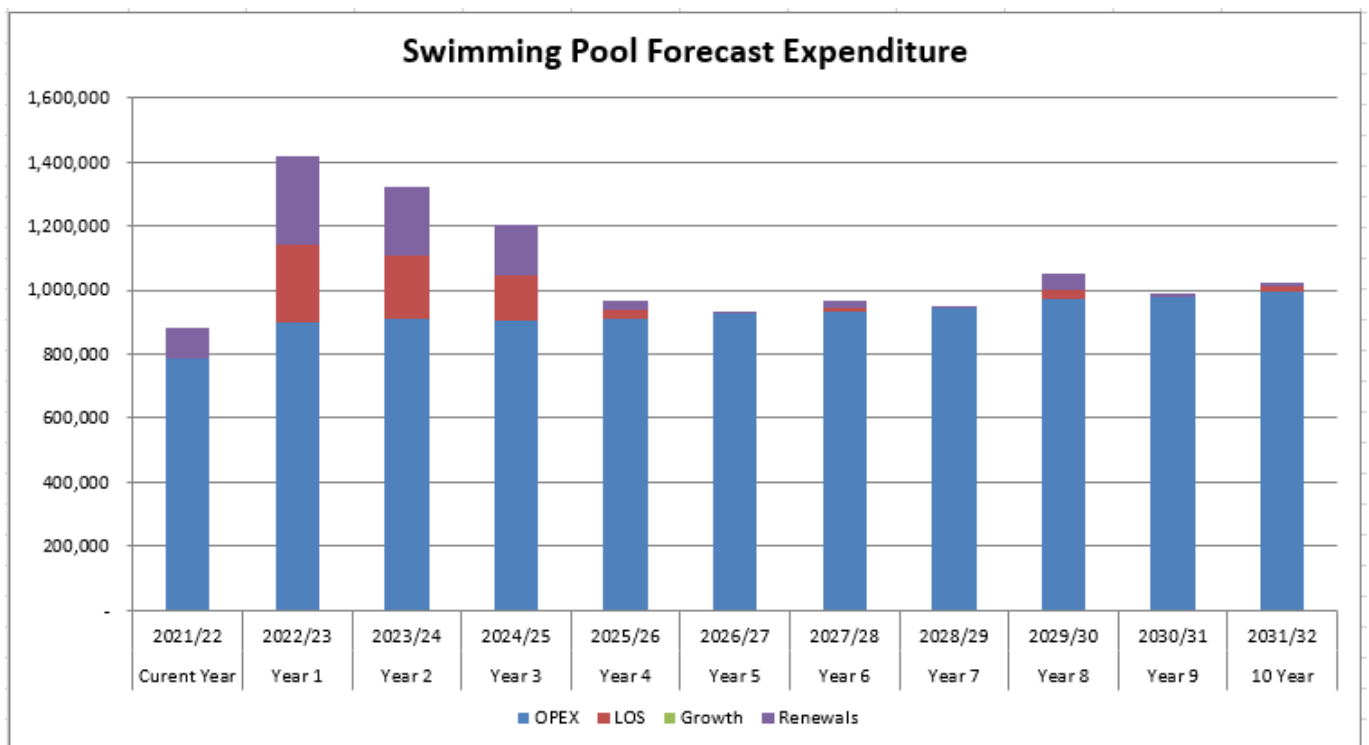
Figures 1-3 show the summary of the operational expenditure (OPEX) and the capital expenditure (CAPEX) for swimming pools, aerodrome and the saleyards.

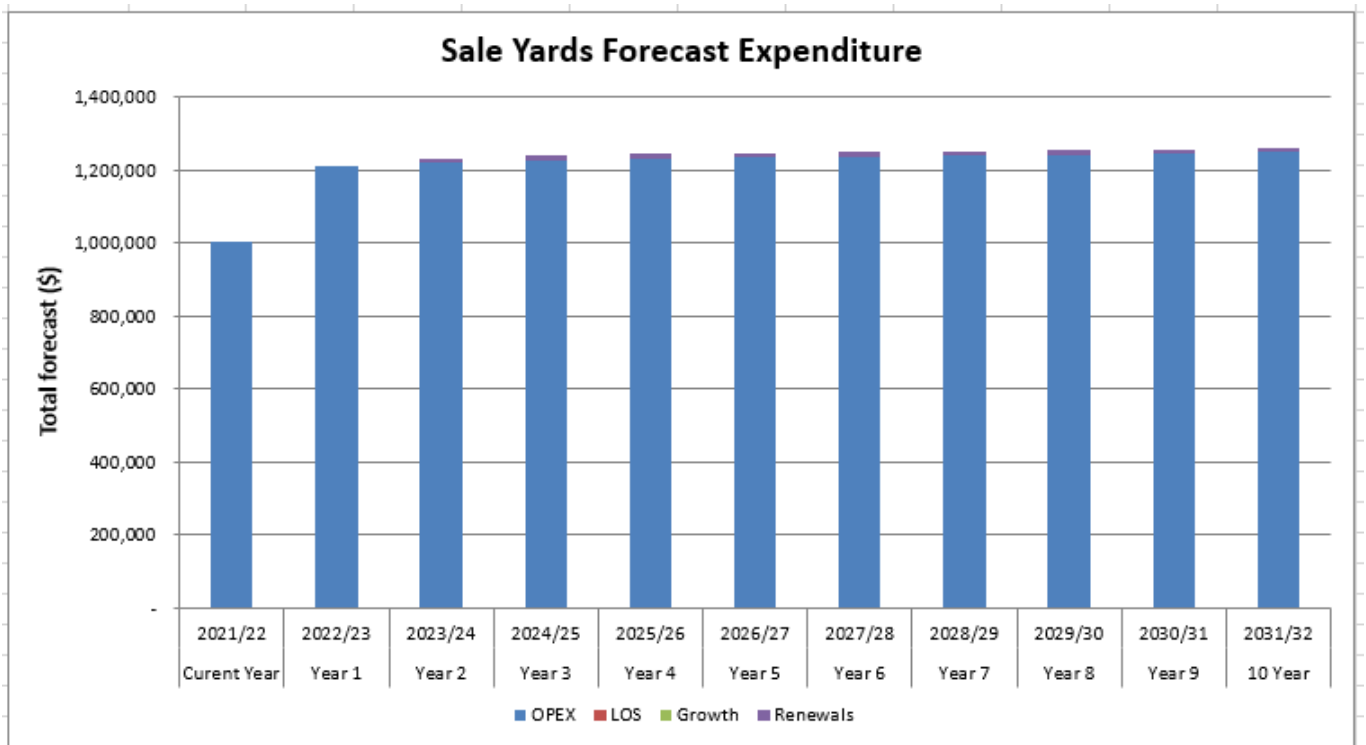
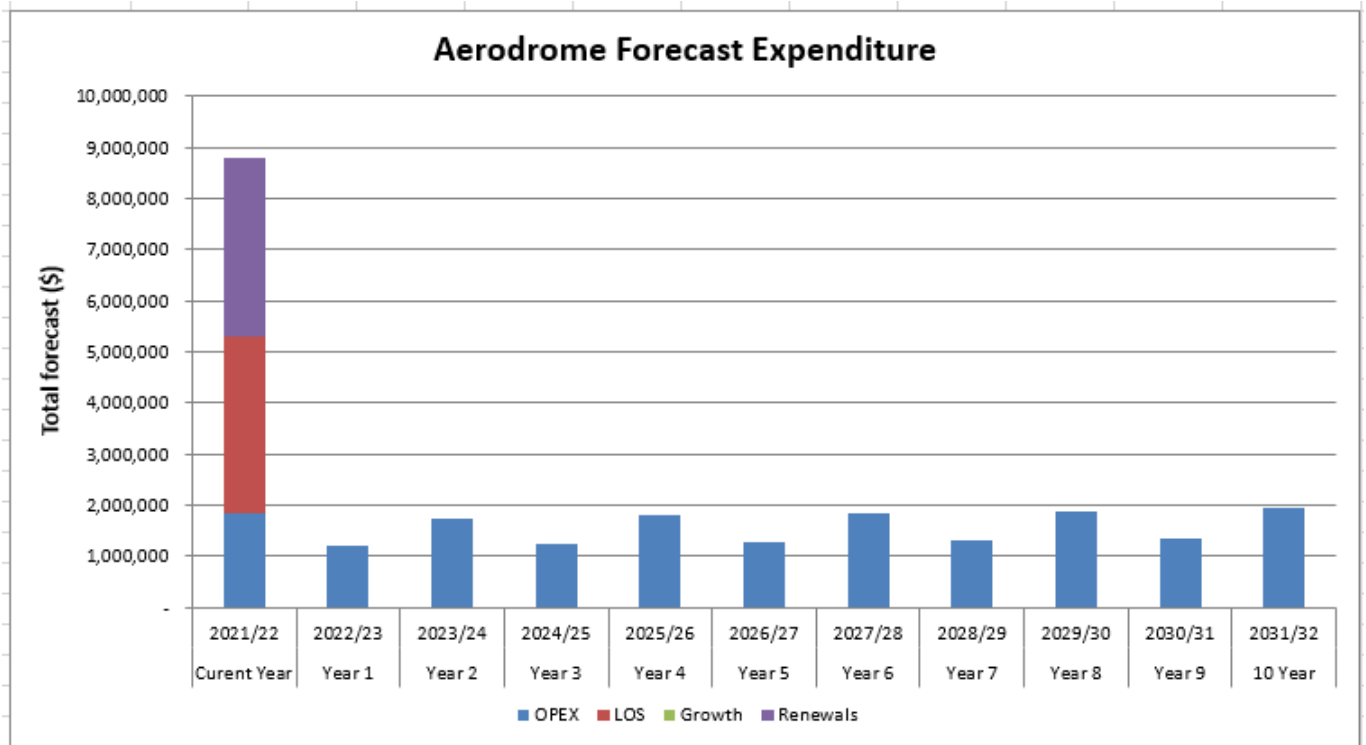
The total amount of forecasted expenditure for SAS operations, maintenance and capital over the next ten years will be approximately \$38.9 million with annual forecasted expenditure averaging \$3.9million per annum.

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards

Forecasted operational expenditure for the ten-year cycle will be approximately \$37.3 million which equates to 96% of the total forecasted expenditure. The Levels of Service (LOS) capital expenditure is for increasing the service level delivered by the assets.

	Swimming Pools	Aerodrome	Sale Yards
OPEX:	\$9,371,058	\$15,621,852	\$12,333,496
LOS:	\$671,552	\$0	\$0
Growth:	\$0	\$0	\$0
Renewal	\$774,052	\$0	\$108,000





Expenditure forecasts (operational and capital) are based on the revised current year budget 2021/22 and the 2018/19 to 2022/23 Delivery Program and Operational Plan (DPOP).

1.3 What we will do

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter Shire’s swimming pools, aerodrome and sale yards assets to meet the service levels set in this plan.
- Inspection of the swimming pools, aerodrome and sale yards assets annually to ensure that they are performing and reassess their condition grading.
- Plan any works to address the defects found from asset inspections.
- Plan renewals based on failure statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog.
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.
- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Poor or incomplete asset management practices including AMP, lifecycle management plans (LCMP) and asset condition assessments.
- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Completing the actions identified in the SAS AMP including life cycle management plan; complete the resourcing levels for swimming pools, aerodrome and sale yards and complete the asset condition survey.
- Complete the full revision of the SAS AMP; complete the asset condition assessment program.
- Implement the asset management improvement program; continue with regular inspections and reporting on assets; start proactively analysing and reporting on data availability; start building core asset management capability; complete asset condition survey.

1.5 The Next Steps

The actions resulting from the SAS AMP are:

- Complete the comprehensive condition survey of all assets located within the swimming pools, aerodrome and sale yards.

- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the swimming pools, aerodrome and sale yards asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Begin the integration of swimming pool, aerodrome and sale yards assets into CONFIRM to improve renewal planning.
- Complete a formal AM Maturity Assessment of the all assets located within the swimming pools, sale yards and aerodrome.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.6 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council's assets range from roads and footpaths to buildings, playgrounds, bridge infrastructure and street furniture.

What is an Asset Management Plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset's life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however, excessive planned maintenance increases costs. An objective of asset management is to strategically time infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

How does Council include community feedback into the Plan?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

Council includes community feedback into Asset Management Plans in a number of ways;

- Through information provided via our Annual Community Survey.
- Through review of common customer requests and complaints in our Customer Request Management (CRM) system, and
- Through a formal community engagement process where the community is invited to provide feedback on draft Asset Management Plans, which is then incorporated into the final documents.

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

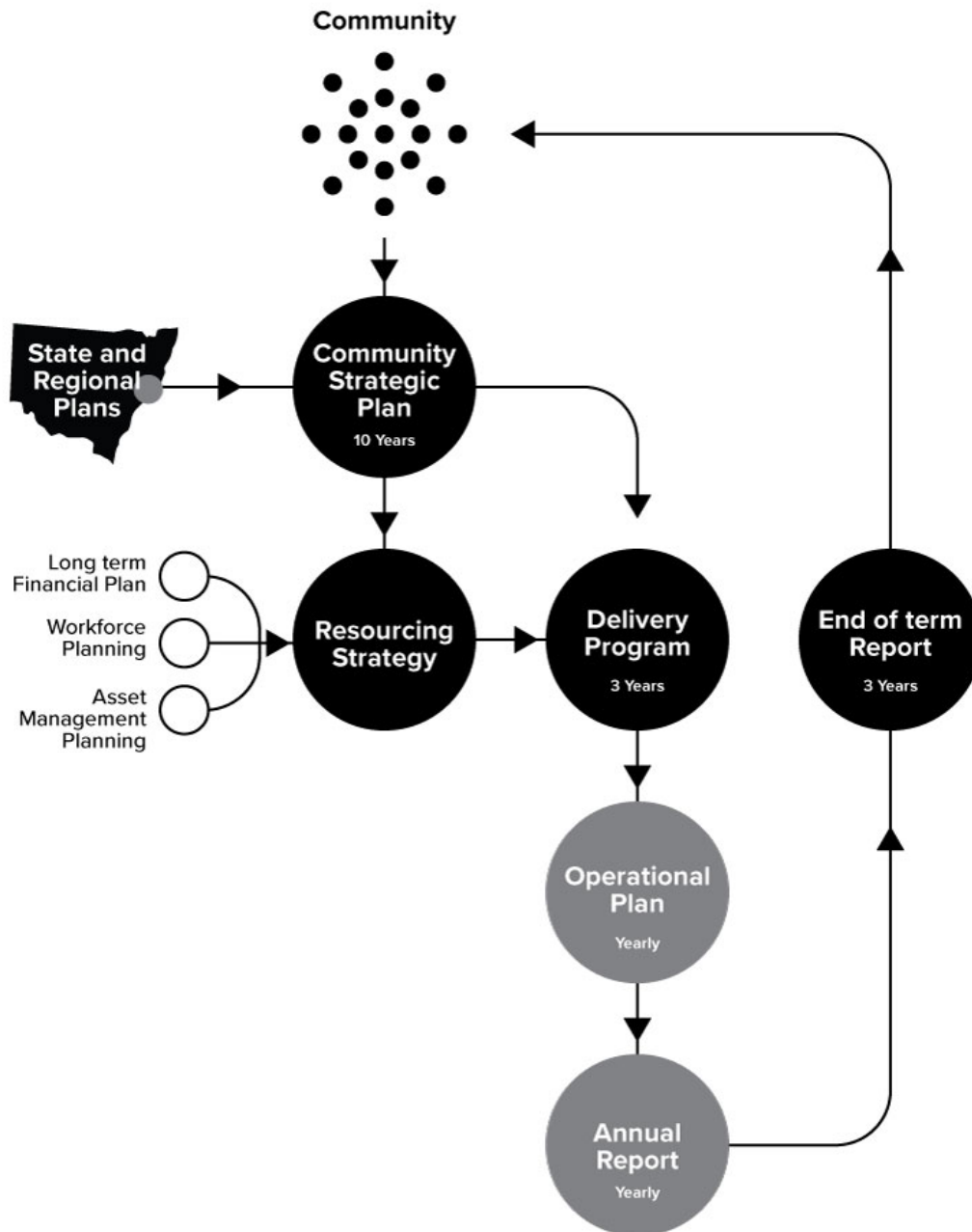
The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program,

Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



3 INTRODUCTION

3.1 Background

About this Plan

This AMP is to demonstrate responsible 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 SAS AMP is to be read with Upper Hunter Shire Council’s Asset Management Policy and Asset Management Strategy and the following associated planning documents:

- Revised current year budget 2021/22
- Delivery Program 2018/19-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation.
- Council files on swimming pools, aerodrome and sale yards.
- Upper Hunter Shire Council Resident Satisfaction Survey Results

Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². Swimming pools, aerodrome and sale yards are collectively referred to in this plan as “SAS assets” and form an integral part of the community infrastructure which is provided and maintained by Council on behalf of the community, businesses and visitors moving through the shire as shown in Figure 1.



Figure 1: Map of Upper Hunter Shire Towns

Our Stakeholders

Key stakeholders interested in swimming pool, aerodrome and saleyards assets are shown in Table 1.

Table 1: Key Stakeholders in SAS Assets

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Asset Program Area	Owner of this plan and responsible for assets covered by this plan
Strategic Assets	Owner of Asset Management Policies and Strategies
Local Resident’s	Users of Council Assets and Services
Local Business	As User of Council Assets and the future of new commercial and community growth
Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental Groups	Interested in improvement to the natural environment and efficiency initiatives
Council’s Business Enterprise & Tourism Department	Interested in the coordination of the capital programs in the road corridor

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by swimming pools, aerodrome and saleyard assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failure

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards

- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

The SAS AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032

Council’s goal is to achieve this in an efficient, cost effective manner while remaining ecologically sustainable and to investigate the future delivery of services.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”

Our commitment to the Community

- We will deliver high quality, innovative, consistent and responsive services to the community.
- We respect the rights of everyone to be treated fairly.
- We will keep our community informed about Council services and financial position.
- We will continually strive to improve our services to the community and encourage community engagement.
- We will deliver increased effort in the protection of the environment.

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 2.

Table 2: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Maintaining and developing our infrastructure network to meet the ongoing needs of our population	Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.	By sustainably managing the asset portfolio and by renewing and upgrading structures as required.
Strengthening our vibrant industries and economy while seizing emerging opportunities	Facilitate and support increased and innovative tourism and marketing opportunities.	By providing for the cost effective development, upgrade, renewal and maintenance of swimming pool, aerodrome and saleyard assets in the Shire, and by ensuring that they are effectively managed to deliver the required services.

4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. To achieve and maintain acceptable levels of service for Council’s SAS assets, a system of setting, recording and reviewing service levels achieved with the assistance of Community input is required. Future iterations of this plan will involve further and more detailed community consultation in this regard.

The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements.

4.1 Community Consultation

Future revisions of this AMP will incorporate further community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company Micromex Research Consultants. They undertook extensive surveys in 2010, 2013 and 2015.

The survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of services (52 in total). A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013 and 2015 using a mix of phone and face to face surveys. The results for swimming pool, aerodrome and saleyard assets are summarised Table 3.

Table 3: Survey Results

Years	Measure	Ranking	Importance	Satisfaction	Performance Gap
2010	Swimming Pools	49	3.41	3.49	-0.08
	Scone & Upper Hunter Airport	NA	NA	NA	NA
	Scone & Upper Hunter Regional Saleyards	NA	NA	NA	NA
2013	Swimming Pools	48	3.31	3.55	-0.24
	Scone & Upper Hunter Airport	NA	NA	NA	NA
	Scone & Upper Hunter Regional Saleyards	NA	NA	NA	NA
2015	Swimming Pools	38	4.00	3.52	0.48
	Scone & Upper Hunter Airport	31	3.98	3.31	0.67

Years	Measure	Ranking	Importance	Satisfaction	Performance Gap
	Scone & Upper Hunter Regional Saleyards	45	4.15	3.95	0.20

The swimming pool assets have become a more important asset group, increasing in ranking by ten places over the five-year period. The first year specific questions regarding the aerodrome and sale yards were included in the survey was 2015.

It should be noted that a performance gap of up to 1.0 is acceptable. Furthermore, swimming pools have become more important to the general public rising ten places in the ranking schedule.

4.3 Strategic and Corporate Goals

The SAS AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 5 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 6.2.

Table 4: SAS Asset Objectives

Focus Areas	Objectives
Customer Service	Meet Levels of Service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council is required to adhere to many Federal and State Government legislative regulations and requirements as shown in Table 5.

Table 5: Legislative Requirements

Legislation	Requirement
Agricultural and Veterinary Products (Control of Use) Act 2002	Act relating to agricultural chemical products, fertilisers and veterinary products and for other purposes. In particular, Use or possession of unregistered agricultural chemical product, Treatment of trade species animal by injection and Treatment of trade species animals in unauthorised manner
Airports Building Controls Regulations 1996	Controls building activities within exiting airports.
Airports Act 1996	Defines condition of operations.
Animal Welfare Act 1985	Act for the promotion of animal welfare; and for other purposes
Animal Welfare Regulations 2000	As allowed for under the Animal Welfare Act 1985.
Aviation Transport Security Act 2004	The main purpose of this Act is to establish a regulatory framework to safeguard against unlawful interference with aviation
Brands Act 1933	Branding of horses, cattle and sheep
Catchment Management Authorities Act 2003	Promotes the coordination of activities within catchment areas. Council believes the Act has implications for the management of waterway quality and quantity.
Civil Aviation Regulations Part 139 – Aerodromes	CASR Part 139 prescribes the requirements for aerodromes used in air transport operations.
Manual of Standards Part 139 – Aerodromes	MOS Part 139 standards and operating procedures for certified, registered aerodromes and other aerodromes used in air transport operations
Civil Aviation Act and Regulations 1988	Provides the legislative basis for air safety and the network of aviation facilities
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards
Controlled Substances Act 1984	Defines who is allowed to administer drugs and regulates or prohibits the manufacture, production, sale, supply, possession, handling or use of certain poisons, drugs, therapeutic and other substances, and of certain therapeutic devices.

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards

Legislation	Requirement
Disability Discrimination Act	Sets out the responsibilities of Council and staff dealing with access and use of public infrastructure.
Environmental Planning and Assessment Act 1997	Encourages the proper management of natural and man-made resources, the orderly use of land, the provision of services and protection of the environment.
Environmental Planning and Assessment Regulation 2000	
Livestock Act 1997	Act to regulate matters relating to livestock.
Livestock Regulations 1998	Livestock regulations as made under the Livestock Act 1997.
Local Government Act, 1993	
Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
NSW Health: Public Swimming Pool Regulation 2000	
NSW Health: Minimising Risk of Cryptosporidium	
Occupational Health and Safety Act 2011	Council must ensure the health, safety and welfare of employees and the public at places of work.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.
Protection of the Environment Act 1997	Regulation the pollution activities and issue of licences as well as the monitoring of and reporting on waste output.
Public Health Act 1993	Public Health Act 1993 Section 82(2) refers to prevention of risks to public health and the requirement to close public pools during such risks to the public.
Swimming Pool Act 1992	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
Swimming Pools Regulation 1998	Key requirement is to integrated community plans with operational and delivery plans.
WHS Act and Regulations	Council must ensure the health, safety and welfare of employees and the public at places of work.
Veterinary Practices Act 2003	Defines who can perform various husbandry practices and procedures.
Veterinary Practice Regulations 2005	Covers three broad categories of responsibility for livestock husbandry and management
	Veterinarian only - These procedures are illegal to be performed except by a registered veterinarian

Legislation	Requirement
	Under veterinary supervision - This can mean that either a procedure is performed by the owner while a veterinarian is present, or it can mean when a veterinarian dispenses a drug together with instructions for administration by the owner
	Owner responsibility - Covers routine husbandry practices
All other relevant State and Federal Acts and Regulations	Other Acts, not mentioned above, that provide regulations on Council.
All Local Laws and relevant policies of the Organisation	Internal policies that define requirements and/or procedures in the carrying out of works or dealing with the public

Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan linked to this AMP.

4.5 Current Levels of Service

We have defined service levels in two terms.

Community Levels of Service

This measures how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service

Are operational or technical measures of performance, which are supported by the community service levels. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition.
- Renewal – the activities that return the service capability of an asset up to that which it had originally.
- Upgrade – the activities to provide a higher level of service.

The levels of service are summarised in Table 6. The full levels of service (LOS) table including performance measures and targets are detailed in Section 8.2.

Table 6: Community Level of Service

Key Service Attribute	Customer LOS
Safety	To reduce risks and hazards.
Quality - reliability	To provide well maintained assets rated as in satisfactory condition at end of any period
Responsiveness	To provide prompt responses for service
Sustainable -Environmental performance	To provide a network that meets customer requirements
Sustainable -Cost Effectiveness	To maintain high levels of proactive maintenance for pipe and pit cleaning

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The SAS asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

The upgrade and/or extension of assets within the swimming pools, aerodrome and saleyards is considered during a review of councils Strategic Business Plan, which includes detailed and long term financial modelling of options for service extensions.

5 FUTURE DEMAND

5.1 The Shire’s Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 7 reflecting an average annual growth rate of -0.50 % pa.

Table 7: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Forecast

The key factors that directly impact the demand for SAS infrastructure are:

- population growth
- demographic changes
- residential development
- extension of services to towns and villages

Demand factor trends and impacts on service delivery are summarised in Table 8.

Table 8: Demand Factors

Demand Factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council's population in 2016 was 14,350	Upper Hunter Shire Council's population is predicted to decline over the next 10 years.	Negative growth rate will have a small decrease in demand
Demographics	28.6% of the Shire's population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand on services
Climate Change	Extremes increasing	More frequent extreme weather events and increased exposure to radiation effects.	More rapid deterioration of infrastructure, increasing frequency of inspections and maintenance and repairs.
Passenger Traffic	Exact numbers not available at present.	Exact numbers not available at present.	Items in Scone Airport Mater Plan Report 2016 (refer below).
Commercial airline service.	Exact numbers not available at present.	Exact numbers not available at present.	
Aircraft movements	Approximately 6,000 – 8,000 per year.	Future growth rate is unlikely.	
Aircraft operating mass characteristics	Exact numbers not available at present.	Exact numbers not available at present.	

Demand Factor	Present position	Projection	Impact on services
Commercial Development	Exact numbers not available at present.	Exact numbers not available at present.	
Land use	Exact numbers not available at present.	Exact numbers not available at present.	Such a trend will adversely impact on the throughput of livestock, which will impact on Council's revenue stream.
Further investigation required to ascertain impact.			
Environment	Unpredictable seasonal conditions.	Prolonged periods of drought sees an increase of livestock during sale days.	The saleyard needs to be able to cater for such fluctuations of livestock numbers on sale days.
Competing Saleyards in Region	Current ranked 10th in NSW for cattle saleyards	Increase sales and remain in top 10.	The saleyard needs to be able to cater for such increased livestock numbers on sale days or else these sales can be directed to other saleyards.
Direct Selling	There has been, in this area, a swing with sellers towards direct selling of stock in recent years, particularly lambs. Direct selling accounts for the second highest percentage of selling methods.	Projected to remain constant for the foreseeable future	Convenience appears to be direct selling's cornerstone, yet it has the ability to upset the essential price setting mechanism, the Saleyard Auction.

Extract from Scone Airport Master Plan 2016.

After consultation with Stakeholders, Council selected Option H for the long term development of the airport. Therefore, Option H represents the Council Preferred Option for Scone Airport. The option provides for:

- Code 2C runway infrastructure
- 43 Code A aircraft parking positions
- Helicopter parking positions
- 2 Code B jet aircraft parking positions that can be used as a single Code C aircraft parking position;
- New Avgas refuelling facility
- Relocated Terminal Building;

- Expanded public parking lot
- Rural Fire Service Station/Facility
- SES Facility
- Location for new Aviation Museum
- New Council Shed
- Full length parallel taxiway
- Stormwater treatment and management

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 9.

Table 9: Changes to Technology

Technology Change	Effect on Service Delivery
Australian Standards/guidelines continuously updating.	Puts today's "acceptable" to a "redundant" to meet new requirements especially in legal terms. Legal compliance drives renewal and supervision compliances.
Improvements in material and design of various components	Changes to compete and meet demand expectations
Implementation of electronic asset management system	Key areas of concern in service delivery will be identified and addressed as implementation progresses and more data becomes available on level of service criteria. Service provision is also expected to become more efficient, enabling increased service delivery.
Improvements in data capture, analysis and monitoring	Accurate and up-to-date asset registers will lead to more accurate works planning and financial data. This will enable a more pro-active approach in asset management.
Introduction of new machinery	Reduced costs, improved productivity and WHS
Renewal treatments	Increased residual life and lower lifecycle costs

5.4 Demand Management Plan

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

Non-asset solutions focus on providing the required service without the need for Council to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept

appropriate asset failures. Examples of non-asset solutions include providing services from existing infrastructure that may be in another community area or commercial premises.

Opportunities identified to date for demand management are shown in Table 10. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 10: Demand Management Plan

Service Activity	Impact on Services	Demand Management Plan
Community engagement		Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council's Charter.
Customer requests		Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services
Passenger traffic	Attainment of trigger point thresholds initiate further phases of development for both landside and airside assets	Monitor annual airport traffic numbers and lobby higher tiers of government for grant funding to implement upgrades according to Scone Airport Master Plan 2016.
Aircraft movements		
Aircraft operating mass characteristics	Runway extension and strengthening	
Commercial Development	Increased demand for development of Commercial land for lease and supporting water, sewer, firefighting, airside and landside access	
Number of livestock sold	Increase demand of livestock passing through the saleyards and possible expansion with other livestock (sheep etc.)	Monitor demand for increase in cattle passing through the saleyards and assess if further expansion or upgrade is feasible
		Monitor demand for in other livestock (sheep etc.) passing through the saleyards and assess if expansion or upgrade is feasible
Truck wash facilities	Increased demand for trucks using the truck wash facilities, both those using the saleyards and passing trucks)	Monitor demand for trucks, both those using the saleyards and passing through, using the truck was facilities to determine if expansion or upgrade is feasible

There is a clear demand for Council to continue providing these services at present and therefore the financial forecasting will assume a 20-year period. However, with each iteration of this SAS AMP which will be undertaken on a 4 to 5-year cycle, demand will be continually assessed.

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor.

The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10-year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the SAS AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019
- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

The lifecycle management plan details how Council plans to manage and operate the swimming pools, aerodrome and saleyards assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. These assets are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council's key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 2 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life



6.1 Background Data

6.1.1 Physical parameters

The summary of the swimming pool, aerodrome and saleyard asset classes covered by this AMP are shown in Table 11. The most recent information available for the quantities and total values are detailed in Section 8.

The aerodrome contains a mixture of airside and landside assets aimed at servicing aviation and commercial activities. Many assets are ageing and require renewal or upgrade due to relative age, condition or function due to legislative changes, technological advancements in aircraft characteristics, increases in passenger numbers, aircraft movements or providing for future airport development.

Table 11: Summary of Asset Classes

Asset	Units	CRC (\$)
Swimming Pools		
50m Pool	2	4,915,900
25m Pool	1	1,053,407
Toddlers Pool	3	447,580
Infants Pool	2	157,307
Concrete Concourse	3,739 m ²	1,397,899
Lighting	9	245,250
Shade Sail	929 m ²	289,087
Aerodrome		
Earthworks	83,415 m ²	644,505
Pavement	78,159 m ²	3,665,532
Seal	111,159 m ²	2,714,962
Lighting	68	320,061
Fencing	4,370 m	140,496
Saleyards		
Earthworks	21,536 m ²	265,685
Pavement	16,699 m ²	631,937
Seal	14,887 m ²	124,345

Asset	Units	CRC (\$)
Truck Wash Facilities	various	303,937
Fencing/Yards	6,450 m	421,099
Catwalks	593 m ²	115,000
Loading Ramps	4	437,481
NLIS Equipment & Pre-Sale	1	115,500
Roofing	2,400 m ²	510,120
Power Supply & Distribution	1	106,275
Security System	1	49,595
Waste water management system	1	60,000

6.1.2 Asset Capacity and Performance

Council’s services are generally provided to meet design standards where these are available.

Council’s swimming pool, aerodrome and saleyards assets would have been designed to meet the standards applicable at the time of construction, taking into account forecast growth. This may mean that some of the older structures may need to be re-assessed to determine if they meet today’s relevant design standards and specifications.

Locations where deficiencies in service performance have not been determined but will be included in future versions of the SAS AMP.

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, routine maintenance inspections and customer requests.

The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset. In taking these factors into account and the current revaluation cycle for assets Council has determined a condition inspection frequency for each asset class. The following inspection frequency has been adopted for each asset class for future condition surveys:

- Swimming Pools – Annually
- Aerodrome - Annually
- Saleyards - Annually

At present the condition of an asset is gauged by a visual rating system that assigns a condition rating on the asset based on how it appears to be functioning in providing its service to the community.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 12.

Table 12: Visual Condition Assessment

Rating Scale	Condition Description
1	Excellent - A near new asset with no visible signs of deterioration
2	Good - An asset in a very good overall condition but with some early stages of deterioration evident.
3	Fair - An asset in fair overall condition. Deterioration in condition would be obvious and there would be some serviceability loss.
4	Poor - An asset in poor overall condition. Deterioration would be quite severe and would be starting to limit the serviceability of the asset. Maintenance costs would be high.
5	Very Poor - An asset in extremely poor condition with severe serviceability problems and needing rehabilitation immediately. There would be an extreme risk in leaving the asset in service.

Condition assessment

A desktop assessment of asset condition has been completed for the purposes of developing this AMP. Periodic condition assessments are critical in keeping a grasp on the condition of an asset’s various components.

This high level assessment of asset condition is summarised in Table 13. Note that the percentages are based on gross replacement costs.

Table 13: Asset Condition Summary

Asset Class	Asset Condition Grade				
	1	2	3	4	5
Swimming Pools	4.0%	8.0%	53.0%	35.0%	0.0%
Aerodrome	29.0%	46.0%	20.0%	4.0%	1.0%
Saleyards	90.0%	10.0%	0.0%	0.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised in Table 14. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

Table 14: Summary of Financial Data

	Swimming Pools (\$)	Aerodrome (\$)	Saleyards (\$)
Current Replacement Cost	9,492,335	6,919,772	14,695,071
Accumulated Depreciation	5,462,536	2,030,903	1,010,419
Written Down Value	4,029,799	4,888,869	13,684,652
Earthworks	-	644,505	265,685
Gross Current Replacement Cost	9,492,335	7,564,277	14,960,756

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The written-down of assets are based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle.

Asset revaluations are required to be completed by Council’s on a 5-year cycle (at a minimum) in accordance with the “Local Government Code of Accounting Practice and Financial Reporting”. This revaluation considers the suitability of design, useful life and condition assessment of the asset components that are being revalued. It also uses industry specific data to estimate the current replacement cost of the assets held.

Useful lives were last reviewed in June 2021 as part of the revaluation process with the assets to be reviewed again in 2026/27 in line with the revaluation cycle as set by the Office of Local Government.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes
- NSW Reference rates used for most assets replacement cost estimate.

There has been no major variation to the revaluation processes since the last Council adopted Asset Management Plan other than the change in methodology for asset write-down from a straight line method to consumption usage method which provide a more realistic approach for the deterioration of the asset.

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to SAS assets is to ensure that:

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council’s swimming pool, aerodrome and saleyard assets include:

- Public health and safety
- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, water damage or events such as accidents.

Risk identification for swimming pool, aerodrome and saleyard assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment/control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Options to treat risk posed by swimming pool, aerodrome and saleyard assets include (but not limited to):

- Risk elimination.
- Reduction in the cause or likelihood of the event occurring.
- Reduction in the consequence or severity of the event if it were to occur.
- Increasing the maintenance regime.
- Initiating council improvements.
- Changing operating processes and procedures.
- Sharing the risk through insurance or contracts.
- Doing nothing and accepting the risk.

Asset risks have been identified for the SAS activity using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 15 shows the very high (VH), high (H) and medium (M) risks identified, the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 15: Critical Risks and Treatment Plan

	Service or Asset at Risk	What can happen	Risk Rating	Risk treatment plan
Aerodrome	Runway	Aircraft crash	High	Intermittent resealing/asphalt
		Damage to aircraft		Regular maintenance inspections
	Taxiway	Aircraft crash	High	Intermittent resealing/asphalt
		Damage to aircraft		Regular maintenance inspections
	Navigational Aids & Lighting	Aircraft crash	High	Regular maintenance inspections
		Damage to aircraft		
Swimming Pools	Swimming Pool	Drowning	High	Ensure staffing levels at pool are adequate

	Service or Asset at Risk	What can happen	Risk Rating	Risk treatment plan
				Ensure staff have completed required training
		Physical Injury		Regular maintenance inspections
Saleyards	Saleyards	Death or injury to person or animal	Very High	Regular maintenance inspections

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. Maintenance includes reactive, planned and cyclic work activities.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

- Reactive maintenance is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.
- Planned maintenance is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 16.

Table 16: Maintenance Expenditure Trends

	Maintenance Expenditure	
	Planned and Specific	Unplanned
Swimming Pools	75%	25%
Aerodrome	80%	20%
Saleyards	50%	50%

It is Council’s goal to increase the planned and cyclic maintenance expenditure progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

Due to there being a minimal backlog of works and that most assets are reaching their full useful life indicating that existing maintenance expenditure levels are adequate to meet required service levels. The assessment and prioritisation of reactive maintenance is undertaken by Council staff using professional experience and judgement.

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

A high level criticality assessment has been completed for Council’s infrastructural asset groups including swimming pool, aerodrome and saleyard assets. Different swimming pool, aerodrome and saleyard asset elements were assessed as high, medium or low criticality rating and are detailed in Table 17. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 17: Critical Assets

	High	Medium	Low
Swimming Pool	-	Chlorination/Filtration Pumps	Signage
Aerodrome	Runway	Taxiway	-
	RFS Taxiway		
	Lighting	Fencing	

	High	Medium	Low
	OLS	Road	
Saleyards	-	Fencing	Signage
		Yards	

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff in accordance with the Council standard drawings.

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the asset network, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the asset network from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Renewal will be undertaken using ‘low cost’ renewal methods where practical. The aim of ‘low cost’ renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement costs.

6.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the condition survey. Renewal will be undertaken using ‘low-cost’ renewal methods where practical. The aim of ‘low-cost’ renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

The decision criteria for major renewals include, in descending importance:

- Standard and regulation compliance
- Condition
- Risk and/or Criticality
- Capacity
- Function
- Age
- Cost/Benefit ratio
- Grant funding
- Existing maintenance costs
- Environmental issues

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
- evaluate the options against evaluation criteria adopted by Council
- select the best option to be included in capital renewal programs
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

6.4.3 Renewal standards

Renewal work is always carried out to current standards and capacity unless a reduced capacity can be justified.

6.4.4 Summary of future renewal expenditure

Future renewal costs are forecast to increase over time as the asset network ages and traffic loading and use increases. Renewals are to be funded from the council’s capital works program and grants where available, see appendix B.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.1 Selection criteria

New assets and upgrade/expansion of the existing swimming pool, aerodrome and saleyard assets are identified from the following:

- Proposals identified by strategic plans or partnerships with other organisation.
- Growth – increased development.
- Poor condition or under capacity.
- Councillor and/or community requests.

Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

6.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. It is unlikely that any swimming pool, aerodrome and saleyard assets would be disposed of while it is still in service. Demolition and disposal of swimming pool, aerodrome and saleyard assets will occur during the replacement process.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the SAS AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Note that expenditure forecasts (operational and capital) are based on the on the revised current year budget 2021/22 and the 2018/19 to 2022/23 DPOP.

The improvements proposed for condition monitoring and establishing more accurate useful lives for the swimming pool, aerodrome and saleyard assets will be an input into that process also.

7.1 Financial Projections

7.1.1 Financial Summary Overview

Swimming pool, aerodrome and sale yards operations, maintenance and capital over the next ten years will be approximately \$38.9 million (as shown in Table 18, 19, 20 and Figure 3, Figure 4, Figure 5) with annual forecasted expenditure averaging \$3.9 million per annum.

This expenditure is divided into two main categories being:

- Capital Expenditure (CAPEX), which is approximately \$1.6 million or 4% of total expenditure and Operational Expenditure (OPEX), which is approximately \$37.3 million or 96% of total expenditure.

The CAPEX is further separated into three main subcategories being:

- Level of Service (LOS), which increases the service level delivered by the assets. This accounts for approximately \$671,552 or 43.2% of total capital expenditure.
- Renewal, which replaces the assets as new. This equates to approximately \$882,052 or 56.8% of total capital expenditure.
- Growth, refers to the expansion of the existing asset network. There is currently no planned expansion to the existing asset network.

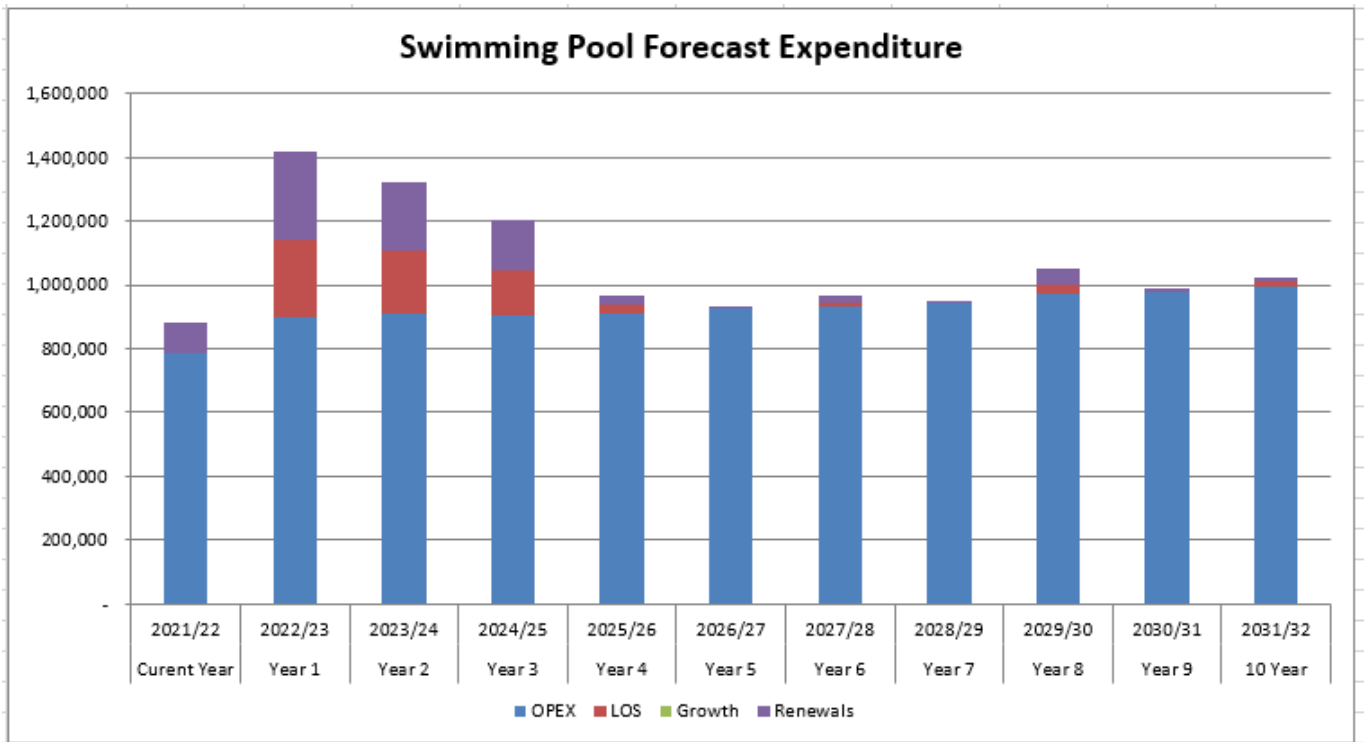


Figure 3: Summary of Swimming Pool Total Expenditure Forecast

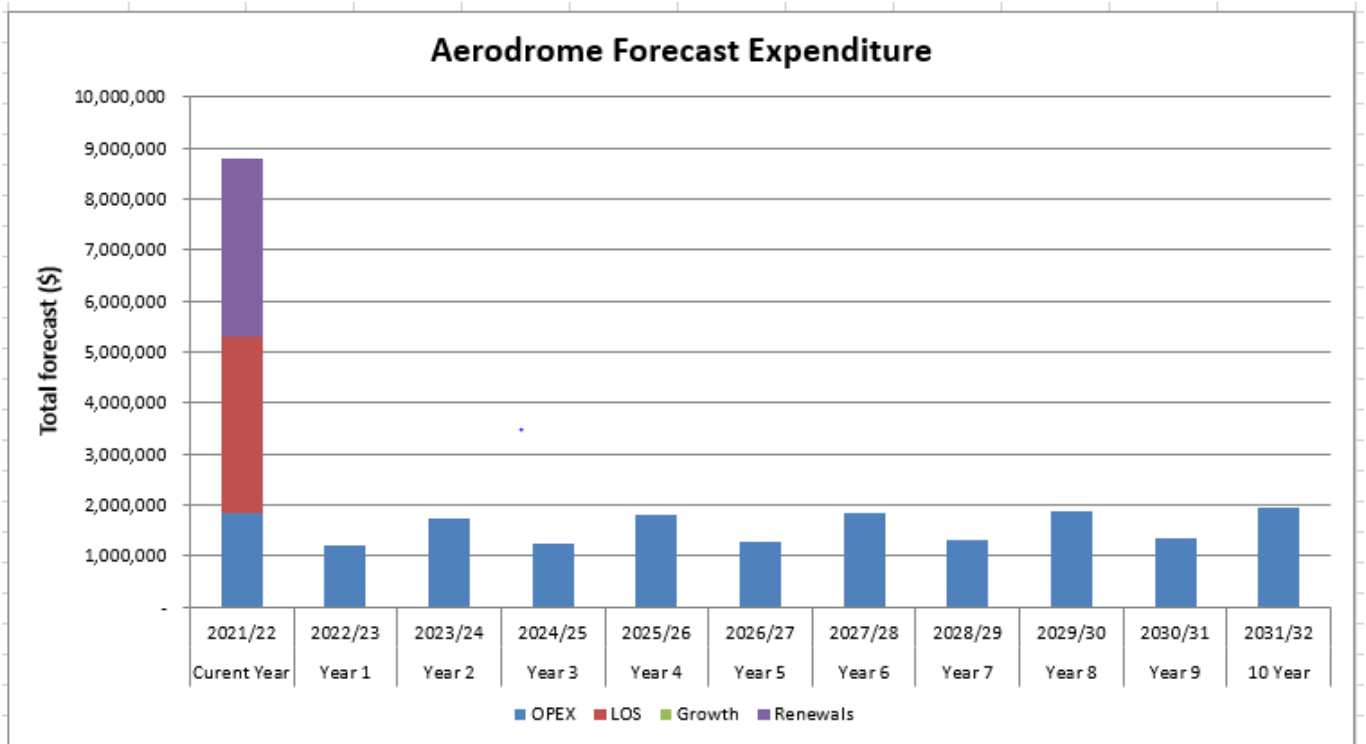


Figure 4: Summary of Aerodrome Total Expenditure Forecast

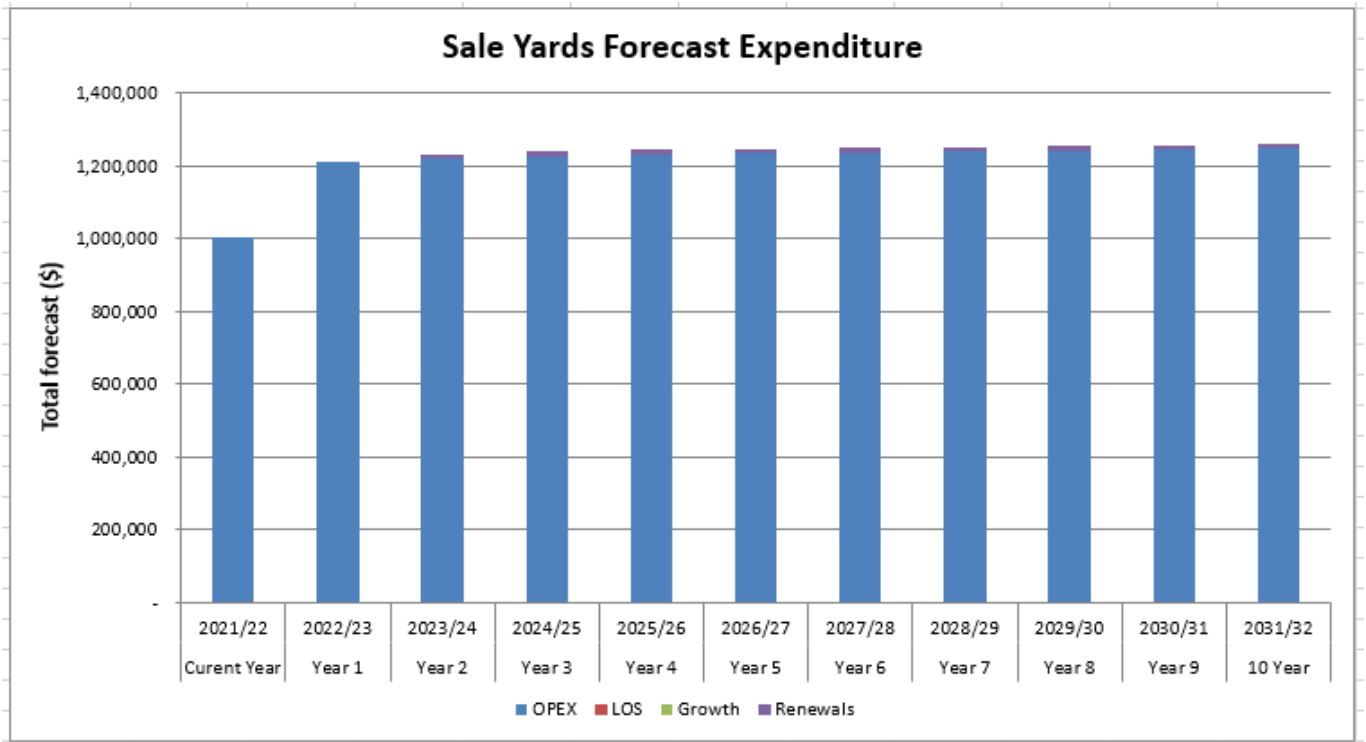


Figure 5: Summary of Saleyards Total Expenditure Forecast



Table 18: Summary of Swimming Pool Total Expenditure Forecast

Swimming Pool Summary	Current Year 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	Year 10 2031/32	10 YEAR TOTAL
OPEX	784,910	900,014	908,276	902,360	910,243	927,442	934,824	942,390	970,148	978,102	997,259	9,371,058
LOS	1,500	243,052	201,500	141,500	29,000	1,500	11,500	1,500	29,000	1,500	11,500	671,552
Growth	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	95,200	275,552	211,500	161,500	29,000	1,500	21,500	1,500	49,000	11,500	11,500	774,052
TOTAL	881,610	1,418,618	1,321,276	1,205,360	968,243	930,442	967,824	945,390	1,048,148	991,102	1,020,259	10,816,662

Table 19: Summary of Aerodrome Total Expenditure Forecast

Aerodrome Summary	Current Year 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	Year 10 2031/32	10 YEAR TOTAL
OPEX	1,827,647	1,224,071	1,738,182	1,252,595	1,795,927	1,283,003	1,845,319	1,307,562	1,895,078	1,332,726	1,947,389	15,621,852
LOS	3,475,071	-	-	-	-	-	-	-	-	-	-	-
Growth	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	3,475,071	-	-	-	-	-	-	-	-	-	-	-
TOTAL	8,777,789	1,224,071	1,738,182	1,252,595	1,795,927	1,283,003	1,845,319	1,307,562	1,895,078	1,332,726	1,947,389	15,621,852

Table 20: Summary of Saleyards Total Expenditure Forecast

Sale Yards Summary	Current Year 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	Year 10 2031/32	10 YEAR TOTAL
OPEX	1,001,129	1,213,042	1,219,695	1,226,193	1,231,825	1,234,501	1,237,145	1,239,166	1,241,185	1,242,930	1,247,814	12,333,496
LOS	-	-	-	-	-	-	-	-	-	-	-	-
Growth	-	-	-	-	-	-	-	-	-	-	-	-
Renewals	-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	108,000
TOTAL	1,001,129	1,213,042	1,231,695	1,238,193	1,243,825	1,246,501	1,249,145	1,251,166	1,253,185	1,254,930	1,259,814	12,441,496



7.1.2 Operational expenditure summary

The recommended ten-year operational expenditure forecast is shown in Table 21, Table 22, Table 23 with \$37.3 million forecast over the next ten years.

Table 21: Summary Swimming Pool OPEX

SWIMMING POOLS	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Utilities	105,250	110,500	113,815	116,945	119,869	122,865	125,937	129,085	132,312	135,620	139,011	1,245,959
Operating Costs	40,500	42,000	43,310	44,586	45,824	46,986	48,178	49,399	50,652	51,937	53,255	476,127
Scone Maintenance	23,500	24,550	25,337	26,117	26,891	27,577	28,280	29,002	29,741	30,500	31,279	279,274
Murrurundi Maintenance	36,500	37,500	38,700	39,891	41,070	42,119	43,194	44,297	45,429	46,589	47,779	426,568
Merriwa Maintenance	336,000	429,000	429,000	415,000	415,000	425,000	425,000	425,000	445,000	445,000	456,000	4,309,000
INDIRECT ASSET COSTS												
Depreciation	200,234	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	2,093,260
Administration Overheads	42,926	47,138	48,788	50,495	52,263	53,569	54,909	56,281	57,688	59,130	60,609	540,870
TOTAL	784,910	900,014	908,276	902,360	910,243	927,442	934,824	942,390	970,148	978,102	997,259	9,371,058



Table 22: Summary Aerodrome OPEX

AERODROME	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	TOTAL
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	33,280	21,500	17,955	14,423	14,904	15,290	15,686	16,093	16,510	16,938	17,378	166,677
Operational Costs	109,127	197,961	204,687	211,543	218,530	224,006	229,619	235,372	241,270	247,316	253,514	2,263,818
Utilities	20,050	24,180	24,905	25,590	26,230	26,886	27,558	28,247	28,953	29,677	30,419	272,645
Warbirds over Scone	503,977	-	500,000	-	525,000	-	550,000	-	575,000	-	600,000	2,750,000
Aerodrome Facility Maintenance	86,047	88,000	91,040	94,177	97,415	99,878	102,403	104,992	107,647	110,369	113,160	1,009,081
Aerodrome Events & Promotions	122,270	-	-	-	-	-	-	-	-	-	-	-
Plane Wash Costs	1,560	-	-	-	-	-	-	-	-	-	-	-
Aviation Centre	478,913	450,572	465,570	480,679	495,883	508,294	521,015	534,055	547,421	561,122	575,166	5,139,777
INDIRECT ASSET COSTS												
Depreciation	193,035	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	1,661,980
Administration Overheads	64,841	70,356	72,818	75,367	78,005	79,955	81,954	84,003	86,103	88,255	90,462	781,657
Aerodrome Runway - Loan Interest	27,853	25,928	23,497	21,167	18,573	15,775	12,847	9,459	5,954	2,177	-	163,230
Aviation Centre & Infrastructure - Loan Interest	121,807	61,806	58,922	55,972	52,954	49,867	46,708	43,478	40,172	36,791	33,332	568,477
Aerodrome Redevelopment - Loan Interest	64,887	117,570	112,590	107,479	102,235	96,854	91,331	85,665	79,850	73,883	67,760	932,344
TOTAL	1,827,647	1,224,071	1,738,182	1,252,595	1,795,927	1,283,003	1,845,319	1,307,562	1,895,078	1,332,726	1,947,389	15,621,852

Table 23: Summary Saleyards OPEX

SALEYARDS	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	TOTAL
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	6,000	6,000	6,180	6,353	6,517	6,685	6,858	7,035	7,217	7,403	7,595	67,843
Operational Costs	328,035	394,044	406,867	419,676	432,447	443,395	454,620	466,131	477,933	490,035	502,445	4,487,593
Utilities	64,532	86,646	89,245	91,700	93,992	96,342	98,750	101,219	103,750	106,343	109,002	976,989
Yards & Facility Maintenance	155,830	25,152	25,907	26,638	27,343	28,066	28,809	29,572	30,355	31,159	31,984	284,985
Truck Wash Costs	60,141	39,800	40,994	42,179	43,353	44,560	45,800	47,076	48,387	49,735	51,121	453,005

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards



SALEYARDS	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Beast Destruction/Removal	1,250	750	773	794	816	837	860	883	906	930	955	8,504
INDIRECT ASSET COSTS												
Depreciation	82,622	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	3,659,950
Administration Overheads	59,772	65,688	67,987	70,367	72,829	74,650	76,516	78,429	80,390	82,400	84,460	753,716
Saleyards - Loan Interest	51,346	47,143	42,722	38,485	33,770	28,682	23,358	17,199	10,826	3,958	-	246,143
Saleyards Redevelopment Loan No1 - Loan Interest	191,601	181,824	173,025	164,006	154,763	145,289	135,579	125,627	115,426	104,972	94,257	1,492,112
TOTAL	1,001,129	1,213,042	1,219,695	1,226,193	1,231,825	1,234,501	1,237,145	1,239,166	1,241,185	1,242,930	1,247,814	12,333,496

7.1.3 Capital expenditure

There is a total of \$1.6 million for capital expenditure for the next ten years as shown in Table 29. Total annual renewals fluctuate between years with a ten-year average of \$88,205 per annum for swimming pool, aerodrome and sale yard assets. It is estimated that 43.2% of the capital expenditure is for new LOS works. The full capital expenditure program is detailed in Appendix B.

7.2 Forecast Reliability and Confidence

The expenditure and valuations projections in the SAS AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 24.

Table 24: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in SAS AMP is shown in Table 27.

Table 27: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C	
Growth projections	C	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.
Asset values	B	Asset revaluation completed in June 2021. Major revaluation scheduled for every five years and due 2026/27.

Data	Confidence Assessment	Comment
Asset useful lives	B	Useful lives were last reviewed in June 2021 and will be reviewed in 2026/27 prior to the major asset revaluation.
Condition modelling	E	There has been limited condition information collected and therefore no modelling undertaken to date.
Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as reliable confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 6.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a ‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels:

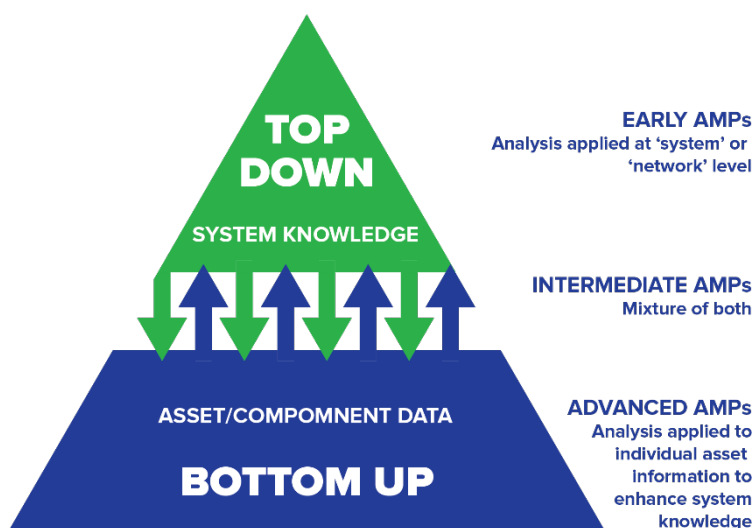


Figure 6: Core versus advanced asset management status

8.1.1 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate & Community Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year's achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council's maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the SAS assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are capitalised.

8.1.2 Asset registers and management systems

Currently CONFIRM is used, supplemented by spreadsheets and Content Manager documentation. There is a need to obtain more sophisticated reports from CONFIRM, and also to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system. Currently, there is a link between asset management systems and accounting systems. In order for this AMP to grow in maturity and improve in accuracy it is vital that integration of asset register systems and financial systems be further improved.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded
- The link between the financial plan, asset plan and the works order system will be addressed in the future
- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.

8.2 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The improvement programme is summarised in Table 26.

Table 26: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2026/27	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the swimming pool, aerodrome and saleyards asset inventory, collection of asset repair data, and updating asset condition assessment records.	2021/22	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the swimming pool, aerodrome and saleyards assets and history.	2021/22	High	Strategic Assets, Operations Services
	Revise and improve the effectiveness of the current SAS renewal program	2021/22	High	Strategic Assets
Risk management	Develop an Emergency Response Plan for the critical swimming pool, aerodrome and saleyards assets.	2021/22	High	Strategic Assets, Internal Auditor/Risk Co-ordinator
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	Very High	Strategic Assets, IT, Operations

8.3 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan.
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP.
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans.

9 LATEST ASSET and LOS INFORMATION

9.1 Swimming Pool, Aerodrome and Saleyard Major Asset Summary

A summary of the major assets that make up the swimming pools, aerodrome and saleyard asset class values is below as at 30 June 2021 are shown in Table 27.

Table 27: Value of Major Assets in the SAS AMP

	Asset Class	Current Replacement Value (\$)	Accumulated Depreciation (\$)	Written Down Value (WDV) (\$)	Earthworks (\$)
Swimming Pool	Concrete	1,397,900	850,188	547,712	
	Facility	390,245	106,430	283,815	
	Fence	10,900	1,370	9,530	
	Landscaping	7,324	2,576	4,748	
	Lighting	245,250	102,754	142,496	-
	Pool	7,151,628	4,348,512	2,803,116	-
	Shade Sail	289,088	50,703	238,385	-
Aerodrome	Earthworks	-	-	-	644,505
	Pavement	3,665,532	793,104	2,872,428	-
	Seal	2,714,962	1,059,919	1,655,042	-
	Lighting	320,061	95,726	224,335	-
	Concrete Infrastructure	15,400	456	14,943	-
	Fencing/Surveillance	184,400	77,371	107,029	-
Saleyards	Landscaping	19,415	4,325	15,090	-
	Acoustic Barrier	256,511	5,234	251,277	
	Electrical & Lighting	341,118	14,213	326,905	-
	Equipment	139,248	36,213	103,035	
	Facilities	8,234,988	168,807	8,066,181	-

Asset Class	Current Replacement Value (\$)	Accumulated Depreciation (\$)	Written Down Value (WDV) (\$)	Earthworks (\$)
Fencing	495,546	59,361	436,185	-
Information Technology	425,564	8,685	416,879	-
Landscaping & Signage	43,981	732	43,249	-
Road Infrastructure	1,072,679	19,395	1,053,284	-
Roofing	510,120	62,488	447,632	-
Truck Parking	955,288	198,101	757,187	199,006
Truck Wash Facilities	303,394	48,543	251,851	-
Waste Management	638,685	30,106	608,579	66,679
Water Tanks	467,001	24,579	442,422	-

Source: Council’s Asset Register (as at 30 June 2021)

9.2 Service Level Summary

The levels of service and performance measures for swimming pool, aerodrome and saleyard services have not been determined but will be included in future versions of the SAS AMP.

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 28. The ten-year asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 28: Asset performance indicators

Asset	Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Swimming Pools	Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	33.60%	>100%	No	Major assets reaching end of useful life and require significant maintenance and/or renewal
Aerodrome			4010.30%		Yes	

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards

Asset	Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Sale yards			3.94%		Yes	Although meeting requirement this is highly skewed due to grant and loan funding – after 22/23 fails to meet benchmark
Swimming Pools	Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory condition/ value of assets)	To assess the infrastructure backlog against the total value of council's infrastructure	12.41%	<2%	No	Major assets reaching end of useful life and require significant maintenance and/or renewal
Aerodrome			2.05%		No	Although meeting requirement this is highly skewed due to grant and loan funding – after 22/23 fails to meet benchmark
Sale yards			0.73%		Yes	
Swimming Pools	Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	86%	>100%	Yes	Major assets reaching end of useful life and require significant maintenance and/or renewal
Aerodrome			19%		No	
Sale yards			109%		Yes	
Swimming Pools	Capital Expenditure Ratio (assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	66%	>110%	No	Major assets reaching end of useful life and require significant maintenance and/or renewal
Aerodrome			131.84%		Yes	Although meeting requirement this is highly skewed due to grant and loan funding – after 22/23 fails to meet benchmark
Sale yards			59%		No	

It should be noted that the majority of assets in the swimming pools, aerodrome and sale yards are large number of small components (that make up a small percentage of the current replacement costs) and a small number of large components (which make up the majority of the current replacement cost). These larger components also have long useful lives ranging from 20 to 80 years which generally means:

- The infrastructure renewal ratio will not meet the benchmark until a major component required renewal and/or upgrading. This is because although smaller components are renewed, replaced or upgraded it will not reach the benchmark of 100%.
- The infrastructure backlog ratio will meet the benchmark in the case of sale yards due to many of the larger components are in a good condition (>2). In the case of swimming pools, the pools are coming towards the end of their useful life and are deteriorating in condition.
- The asset maintenance ratio will not meet the benchmark in the case of swimming pools as they are coming towards the end of their useful life and are deteriorating in condition. This will mean a lifecycle cost and a benefit cost ratios will determine to either significantly increase the maintenance expenditure in the future or undertake planned renewals and/or upgrades (increasing capital expenditure).
- The capital expenditure ratio will not meet the benchmark in the case of swimming pools until a major component is renewed, replaced or upgraded.

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

- Appendix A Acronym Glossary
- Appendix B Projected 10 Year Capital Renewal, Replacement and New Works Program
- Appendix C Forecast of Asset Ratios to Local Government benchmarks
- Appendix D Swimming pool, Aerodrome and Saleyards Services Activity Risk Register
- Appendix E Glossary/ Definitions

Appendix A - Acronym Glossary

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value



Appendix B - Projected 10 year Capital Renewal, Replacement and New Works Program

Table 29: SAS CAPEX

Upper Hunter Council Swimming Pool Capital Works Program

PROJECT DESCRIPTION	Type of Works			Cost Renewals	Totals	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	10 Years
POOLS CAPITAL EXPENDITURE																	
1134. Mdi - Sand Filter Refurbishment			100%	-	-	23,700	-	-	-	-	-	-	-	-	-	-	-
1144. Mdi - Valve Replacement & Plantroom Upg			100%	30,000	30,000	-	-	-	10,000	-	-	10,000	-	-	-	10,000	30,000
4094. Scn - Valve Replacement in Plantroom			100%	40,000	40,000	-	-	10,000	10,000	-	-	-	-	20,000	-	-	40,000
4102. Scn New Shade Covers	50%		50%	5,000	10,000	-	-	10,000	-	-	-	-	-	-	-	-	10,000
4300. Mdi - pool blanket/covers renewal	50%		50%	7,500	15,000	-	-	15,000	-	-	-	-	-	-	-	-	15,000
5267. Mwa - Plantroom	50%		50%	47,500	95,000	-	-	15,000	-	20,000	-	20,000	-	20,000	-	20,000	95,000
5268. Mdi -Plantroom	50%		50%	35,000	70,000	-	-	-	-	35,000	-	-	-	35,000	-	-	70,000
5522. Merriwa Olympic Pool Facilities	50%		50%	129,452	258,904	-	258,904	-	-	-	-	-	-	-	-	-	258,904
5523. Scone Memorial Pool Facilities	50%		50%	113,600	227,200	-	227,200	-	-	-	-	-	-	-	-	-	227,200
5805. Pool Furniture	50%		50%	13,500	27,000	3,000	-	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	27,000
5814. Mdi - Replacement Chemical Storage	50%		50%	140,000	280,000	-	-	-	280,000	-	-	-	-	-	-	-	280,000
5815. Scn - Replacement Chemical Storage	50%		50%	180,000	360,000	-	-	360,000	-	-	-	-	-	-	-	-	360,000
5817. Merriwa Pool Chlorine Dosing Plant			100%	-	-	37,500	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD						96,700	518,604	413,000	303,000	58,000	3,000	33,000	3,000	78,000	13,000	23,000	1,445,604
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				774,052													



Upper Hunter Council Aerodrome Capital Works Program

PROJECT DESCRIPTION	Type of Works			Cost Renewals	Totals	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
AERODROME CAPITAL EXPENDITURE																	
4738. Airport Development	50%		50%	-	-	6,950,142	-	-	-	-	-	-	-	-	-	-	-
4813. Airport - AWIS	100%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD						6,950,142	-	-	-	-	-	-	-	-	-	-	-
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				-													

Upper Hunter Council Saleyards Capital Works Program

PROJECT DESCRIPTION	Type of Works			Cost Renewals	Totals	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 Years
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
SALEYARDS CAPITAL EXPENDITURE																	
4809. Saleyards Replacement Pumps & Equipment			100%	108,000	108,000	-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	108,000
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD						-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	108,000
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				108,000													

Appendix C – Operational Expenditure

Asset Management Plan – Swimming Pools, Aerodrome & Saleyards



SWIMMING POOLS	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Utilities	105,250	110,500	113,815	116,945	119,869	122,865	125,937	129,085	132,312	135,620	139,011	1,245,959
Operating Costs	40,500	42,000	43,310	44,586	45,824	46,986	48,178	49,399	50,652	51,937	53,255	476,127
Scone Maintenance	23,500	24,550	25,337	26,117	26,891	27,577	28,280	29,002	29,741	30,500	31,279	279,274
Murrurundi Maintenance	36,500	37,500	38,700	39,891	41,070	42,119	43,194	44,297	45,429	46,589	47,779	426,568
Merriwa Maintenance	336,000	429,000	429,000	415,000	415,000	425,000	425,000	425,000	445,000	445,000	456,000	4,309,000
INDIRECT ASSET COSTS												
Depreciation	200,234	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	2,093,260
Administration Overheads	42,926	47,138	48,788	50,495	52,263	53,569	54,909	56,281	57,688	59,130	60,609	540,870
TOTAL	784,910	900,014	908,276	902,360	910,243	927,442	934,824	942,390	970,148	978,102	997,259	9,371,058

AERODROME	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	33,280	21,500	17,955	14,423	14,904	15,290	15,686	16,093	16,510	16,938	17,378	166,677
Operational Costs	109,127	197,961	204,687	211,543	218,530	224,006	229,619	235,372	241,270	247,316	253,514	2,263,818
Utilities	20,050	24,180	24,905	25,590	26,230	26,886	27,558	28,247	28,953	29,677	30,419	272,645
Warbirds over Scone	503,977	-	500,000	-	525,000	-	550,000	-	575,000	-	600,000	2,750,000
Aerodrome Facility Maintenance	86,047	88,000	91,040	94,177	97,415	99,878	102,403	104,992	107,647	110,369	113,160	1,009,081
Aerodrome Events & Promotions	122,270	-	-	-	-	-	-	-	-	-	-	-
Plane Wash Costs	1,560	-	-	-	-	-	-	-	-	-	-	-
Aviation Centre	478,913	450,572	465,570	480,679	495,883	508,294	521,015	534,055	547,421	561,122	575,166	5,139,777
INDIRECT ASSET COSTS												
Depreciation	193,035	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	1,661,980
Administration Overheads	64,841	70,356	72,818	75,367	78,005	79,955	81,954	84,003	86,103	88,255	90,462	781,657
Aerodrome Runway - Loan Interest	27,853	25,928	23,497	21,167	18,573	15,775	12,847	9,459	5,954	2,177	-	163,230
Aviation Centre & Infrastructure - Loan Interest	121,807	61,806	58,922	55,972	52,954	49,867	46,708	43,478	40,172	36,791	33,332	568,477
Aerodrome Redevelopment - Loan Interest	64,887	117,570	112,590	107,479	102,235	96,854	91,331	85,665	79,850	73,883	67,760	932,344



AERODROME	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	TOTAL
TOTAL	1,827,647	1,224,071	1,738,182	1,252,595	1,795,927	1,283,003	1,845,319	1,307,562	1,895,078	1,332,726	1,947,389	15,621,852

SALEYARDS	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	TOTAL
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Administration Costs	6,000	6,000	6,180	6,353	6,517	6,685	6,858	7,035	7,217	7,403	7,595	67,843
Operational Costs	328,035	394,044	406,867	419,676	432,447	443,395	454,620	466,131	477,933	490,035	502,445	4,487,593
Utilities	64,532	86,646	89,245	91,700	93,992	96,342	98,750	101,219	103,750	106,343	109,002	976,989
Yards & Facility Maintenance	155,830	25,152	25,907	26,638	27,343	28,066	28,809	29,572	30,355	31,159	31,984	284,985
Truck Wash Costs	60,141	39,800	40,994	42,179	43,353	44,560	45,800	47,076	48,387	49,735	51,121	453,005
Beast Destruction/Removal	1,250	750	773	794	816	837	860	883	906	930	955	8,504
INDIRECT ASSET COSTS												
Depreciation	82,622	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	3,659,950
Administration Overheads	59,772	65,688	67,987	70,367	72,829	74,650	76,516	78,429	80,390	82,400	84,460	753,716
Saleyards - Loan Interest	51,346	47,143	42,722	38,485	33,770	28,682	23,358	17,199	10,826	3,958	-	246,143
Saleyards Redevelopment Loan No1 - Loan Interest	191,601	181,824	173,025	164,006	154,763	145,289	135,579	125,627	115,426	104,972	94,257	1,492,112
TOTAL	1,001,129	1,213,042	1,219,695	1,226,193	1,231,825	1,234,501	1,237,145	1,239,166	1,241,185	1,242,930	1,247,814	12,333,496

Appendix D - Forecast of Asset Ratios to Local Government Benchmarks



Table 30: Swimming Pool Asset Ratios

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
INFRASTRUCTURE RENEWAL												
Asset Renewals	95,200	275,552	211,500	161,500	29,000	1,500	21,500	1,500	49,000	11,500	11,500	
Depreciation Expense	200,234	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	
INFRASTRUCTURE BACKLOG												
Estimated Cost to bring back to Satisfactory	1,644,925	1,621,125	1,552,237	1,499,362	1,458,987	1,451,737	1,451,362	1,445,987	1,445,612	1,433,362	1,430,487	
Closing Value of Assets	3,837,456	3,637,222	3,427,896	3,218,570	3,009,244	2,799,918	2,590,592	2,381,266	2,171,940	1,962,614	1,753,288	
ASSET MAINTENANCE												
Asset Maintenance Expense	100,500	104,050	107,347	110,594	113,785	116,682	119,652	122,698	125,822	129,026	132,313	
Required Asset Maintenance	191,103	191,133	195,994	200,024	202,854	203,434	203,464	203,694	203,724	204,304	204,334	
CAPITAL EXPENDITURE												
Annual Capital Expenditure	96,700	518,604	413,000	303,000	58,000	3,000	33,000	3,000	78,000	13,000	23,000	
Annual Depreciation Expense	200,234	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	209,326	
SS7 Data												
Gross Replacement Cost (GRC)	9,555,171	9,556,671	9,799,723	10,001,223	10,142,723	10,171,723	10,173,223	10,184,723	10,186,223	10,215,223	10,216,723	
% Infrastructure Condition 4 and above	34.43%	33.93%	31.68%	29.98%	28.77%	28.54%	28.53%	28.40%	28.38%	28.06%	28.00%	
% Infrastructure Condition 3 and above	86.74%	85.73%	80.79%	77.05%	74.38%	73.89%	73.86%	73.57%	73.54%	72.85%	72.73%	
RATIOS BASED ON 3YR AVERAGE												
	Benchmark											
Infrastructure Renewal	100%	28.97%	72.32%	94.08%	103.28%	64.01%	30.57%	8.28%	3.90%	11.47%	9.87%	11.47%
Infrastructure Backlog	2%	19.87%	32.73%	44.19%	45.44%	46.71%	48.85%	51.93%	55.96%	60.79%	66.38%	73.19%
Asset Maintenance	1.00	0.73	0.60	0.54	0.55	0.55	0.56	0.57	0.59	0.60	0.62	0.63
Capital Expenditure	1.10	0.60	1.23	1.66	1.97	1.23	0.58	0.15	0.06	0.18	0.15	0.18
ACTUAL RATIO MEETING BENCHMARK												
Infrastructure Renewal		X	X	X	✓	X	X	X	X	X	X	X
Infrastructure Backlog		X	X	X	X	X	X	X	X	X	X	X
Asset Maintenance		X	X	X	X	X	X	X	X	X	X	X
Capital Expenditure		X	✓	✓	✓	✓	X	X	X	X	X	X



Table 31: Aerodrome Asset Ratios

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
INFRASTRUCTURE RENEWAL											
Asset Renewals	3,475,071	-	-	-	-	-	-	-	-	-	-
Depreciation Expense	193,035	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198
INFRASTRUCTURE BACKLOG											
Estimated Cost to bring back to Satisfactory	188,722	188,345	187,968	187,592	187,217	186,843	186,469	186,096	185,724	185,352	184,982
Closing Value of Assets	11,646,107	10,380,072	10,349,727	10,319,120	10,288,249	10,257,114	10,225,717	10,194,057	10,328,337	10,296,152	10,429,910
Asset Maintenance											
Asset Maintenance Expense	86,047	88,000	91,040	94,177	97,415	99,878	102,403	104,992	107,647	110,369	113,160
Required Asset Maintenance	293,841	296,577	299,308	302,033	304,753	307,468	310,177	312,880	315,579	318,271	320,959
Capital Expenditure											
Annual Capital Expenditure	6,950,142	-	-	-	-	-	-	-	-	-	-
Annual Depreciation Expense	193,035	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198	166,198
SS7 Data											
Gross Replacement Cost (GRC)	14,692,049	14,828,862	14,965,401	15,101,669	15,237,665	15,373,388	15,508,840	15,644,021	15,778,930	15,913,570	16,047,941
% Infrastructure Condition 4 and above	2.57%	2.54%	2.51%	2.48%	2.46%	2.43%	2.40%	2.38%	2.35%	2.33%	2.31%
% Infrastructure Condition 3 and above	12.85%	12.70%	12.56%	12.42%	12.29%	12.15%	12.02%	11.90%	11.77%	11.65%	11.53%
Ratios Based on 3Yr Average											
	Benchmark										
Infrastructure Renewal	100%	1915.99%	1923.40%	661.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Infrastructure Backlog	2%	1.80%	1.77%	1.75%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.79%
Asset Maintenance	1.00	0.29	0.26	0.30	0.30	0.31	0.32	0.32	0.33	0.34	0.35
Capital Expenditure	1.10	54.50	54.69	13.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Actual Ratio Meeting Benchmark											
Infrastructure Renewal		✓	✓	✓	✗	✗	✗	✗	✗	✗	✗
Infrastructure Backlog		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Asset Maintenance		✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Capital Expenditure		✓	✓	✓	✗	✗	✗	✗	✗	✗	✗



Table 32: Saleyards Asset Ratios

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Infrastructure Renewal											
Asset Renewals	-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Depreciation Expense	82,622	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995
Infrastructure Backlog											
Estimated Cost to bring back to Satisfactory	-	-	-	-	-	-	-	-	-	-	-
Closing Value of Assets	13,602,378	13,236,383	12,870,388	12,504,393	12,138,398	11,772,403	11,406,408	11,040,413	10,674,418	10,308,423	9,942,428
Asset Maintenance											
Asset Maintenance Expense	155,830	25,152	25,907	26,638	27,343	28,066	28,809	29,572	30,355	31,159	31,984
Required Asset Maintenance	299,220	299,220	299,220	299,220	299,220	299,220	299,220	299,220	299,220	299,220	299,220
Capital Expenditure											
Annual Capital Expenditure	-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Annual Depreciation Expense	82,622	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995	365,995
SS7 Data											
Gross Replacement Cost (GRC)	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000	14,961,000
% Infrastructure Condition 4 and above	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
% Infrastructure Condition 3 and above	0.00%	0.00%	-0.08%	-0.16%	-0.24%	-0.32%	-0.40%	-0.48%	-0.56%	-0.64%	-0.72%
Ratios Based on 3Yr Average											
	Benchmark										
Infrastructure Renewal	100%	418.98%	0.89%	1.47%	2.19%	3.28%	3.28%	3.28%	3.28%	3.28%	3.28%
Infrastructure Backlog	2%	0.37%	0.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Asset Maintenance	1.00	0.77	0.44	0.23	0.09	0.09	0.09	0.09	0.10	0.10	0.10
Capital Expenditure	1.10	34.09	0.13	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Actual Ratio Meeting Benchmark											
Infrastructure Renewal		✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
Infrastructure Backlog		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Asset Maintenance		✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Capital Expenditure		✓	✗	✗	✗	✗	✗	✗	✗	✗	✗

Appendix E - SAS Activity Risk Register

The SAS AMP activity risk register has not been determined but will be included in future versions of the SAS AMP.

12 GLOSSARY

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset

OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation /

amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost "As New" (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and

needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

(a) use in the production or supply of goods or services or for administrative purposes; or

(b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in ‘spreading the burden’ of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset’s useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future

economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

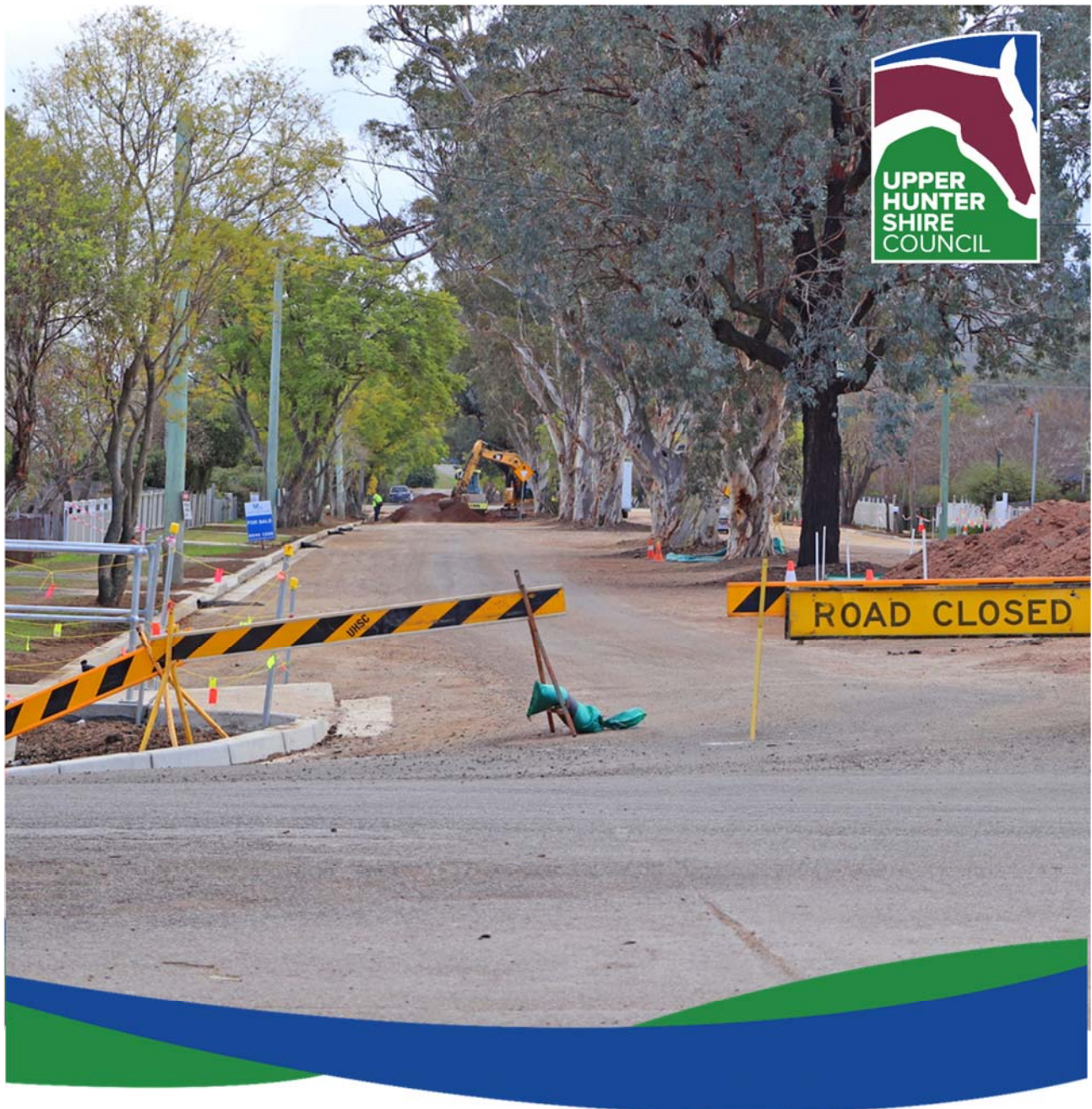
Source: DVC 2006, Glossary

*Note: Items shown * modified to use DA instead of CRC*

*Additional glossary items shown ***

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	June 2017	Initial draft	GNS	JB - WP	JB
2	June 2018		GNS	JB - WP	JB
3	June 2019		GNS	JB - WP	JB
4	June 2020	Update asset inventory and financial data	GNS	JB	JB
5	June 2021	Update asset inventory and financial data	GNS	JB	JB
6	April 2022	Update asset inventory and financial data	KW	JB	



Asset Management Plan

ROADS

2022

Date adopted by Council	27 June 2022
Minute number	SCR06.22
CM Ref	INT-23945/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population.</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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1 EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry. Council supplies Road Infrastructure Assets to residential, commercial and industrial customers in the towns of Aberdeen, Merriwa, Murrurundi, Scone and villages within the shire.

Council plans to operate and maintain its road assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards the achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by this Road Asset Management Plan (RAMP) includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for road infrastructure operations, maintenance and capital over the next ten years will be approximately \$240.9 million (as shown in Figure 1) with annual forecasted expenditure varying between \$15.8 and \$55.9 million per annum.

Forecasted operational expenditure (OPEX) for the ten-year cycle will be approximately \$121.2 million which equates to 50.3% of the total forecasted expenditure. The indirect OPEX includes depreciation, loan repayments and administration overheads totalling \$68.9 million (56.82%), whilst the direct OPEX equates to \$52.3 million (43.18%).

It must be noted that over \$53.8 million (approximately 44.92%) of the total capital expenditure budget is either partially or wholly dependent on funding secured through State and Federal Governments and other appropriate sources. Should a significant portion of this funding be unsuccessful or have considerable changes made to existing funding agreements or arrangements it will pose a substantial risk to the assets condition and desired level of services. Furthermore, and potentially more concerning would be impacts on Councils workforce.

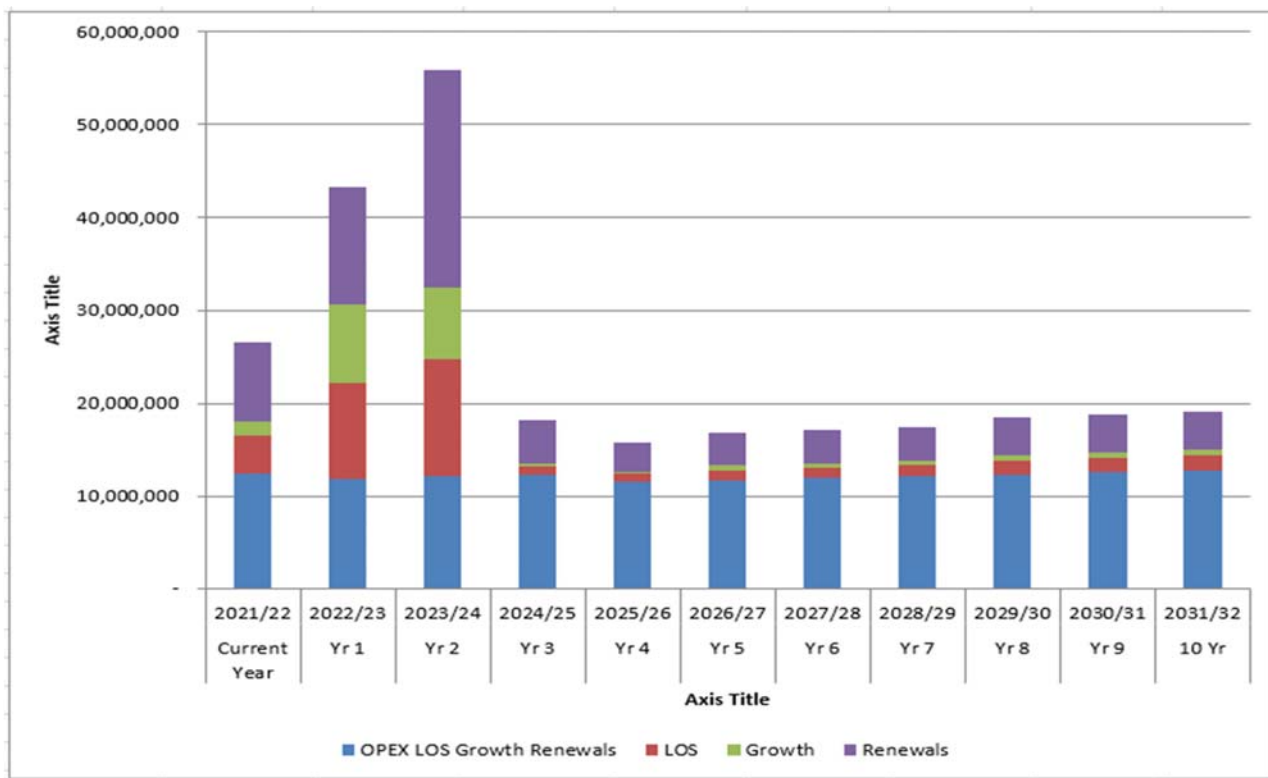


Figure 1: Summary of Road Infrastructure Total Expenditure Forecast

1.3 What we will do

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter road infrastructure assets to meet the service levels set in this plan
- Inspect the road infrastructure annually to ensure that they are performing and reassess their condition grading
- Plan any works to address the defects found from asset inspections
- Plan road infrastructure renewals based on statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.
- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

Asset Management Plan – Roads

- Poor or incomplete asset management practices including Asset Management Plans (AMP), lifecycle management plans (LCMP) and asset condition assessments.
- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Complete the actions identified in the Road Infrastructure AMP including lifecycle management plans (LCMP); complete the resourcing levels for Road Infrastructure Assets Services asset management and complete the asset condition survey.
- Complete the full revision of the Road Infrastructure Assets Services AMP; complete the asset condition assessment program.
- Implement the asset management improvement program; continue with regular inspections and reporting on assets; start proactively analysing and reporting on data availability; start building core asset management capability; complete asset condition survey.

1.5 The Next Steps

The actions resulting from the Road Infrastructure AMP are:

- Complete the comprehensive condition survey of all road infrastructure assets.
- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the road infrastructure services asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Integrate road infrastructure assets into CONFIRM to improve renewal and maintenance planning.
- Complete a formal AM Maturity Assessment of the road infrastructure assets.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.6 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council's assets range from roads and footpaths/cycle ways to buildings, playgrounds and street furniture.

What is an Asset Management Plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset's life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however,

excessive planned maintenance increases costs. An objective of asset management is to strategically time infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations, and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

How does Council include community feedback into the Plan?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

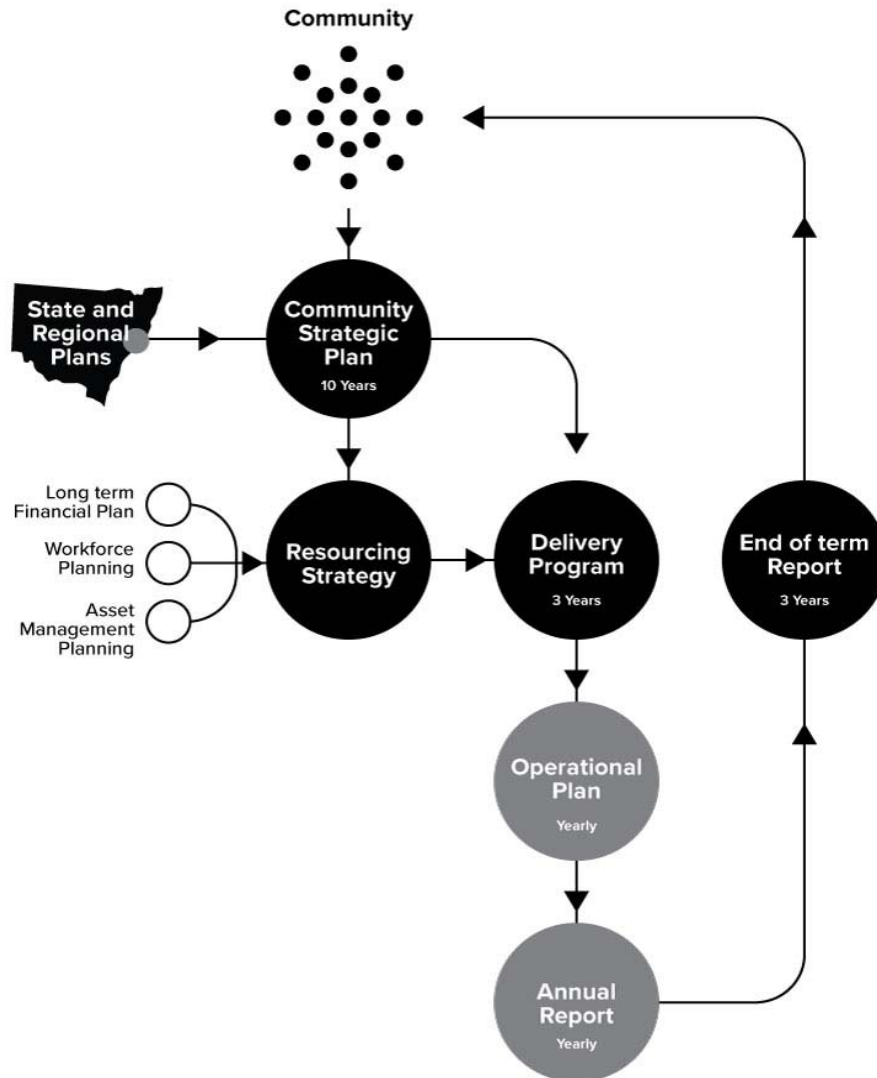
Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery

Asset Management Plan – Roads

Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.



3 INTRODUCTION

3.1 Background

About this Plan

The Road Infrastructure AMP is to demonstrate responsible 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 Road Infrastructure AMP is to be read with Council’s Asset Management Policy and Strategy and the following associated planning documents:

- Revised current year budget 2021/22
- Delivery Program 2018/19-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation
- Council files on Road Infrastructure Assets
- Upper Hunter Shire Council Resident Satisfaction Survey Results

Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². Council supplies a road infrastructure network comprising of sealed and unsealed rural and regional roads plus urban streets, kerb & gutter and footpaths/cycle ways (where applicable) in the towns of Aberdeen, Merriwa, Murrurundi, Scone and the villages in the local government area as shown in Figure 2.



Figure 2: Map of Upper Hunter Shire Towns and Villages

Council’s road infrastructure assets comprise of:

- Sealed Roads: road surface (bitumen seal, asphalt), road structure (pavement) and earthworks
- Unsealed Roads: gravel surface, road structure and earthworks
- Kerb & Gutter: Concrete and earthworks
- Footpaths/Cycle ways: Concrete or asphalt and earthworks.
- Rural stormwater networks and structures

Refer to sections 5 and 8 for road infrastructure asset details and valuation.

3.1.1 Our Stakeholders

Key stakeholders interested in Road Infrastructure Assets are shown in Table 1.

Table 1: Key Stakeholders in Road Infrastructure Assets

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Strategic Assets	Owner of Asset Management Policies and Strategies
Local Resident’s	Users of Council Assets and Services
Local Businesses	As User of Council Assets
	Future of new commercial and community growth
Regional Businesses	As User of Council Assets
	Route development and upgrade strategies
Freight and Transport Industries	As User of Council Assets
	Route development and upgrade strategies
Land Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental groups	Interested in improvement to the natural environment and efficiency initiatives
Council’s Works Delivery Team	Interested in the coordination of the capital programs in the road corridor
State Government Departments	Development of local and regional strategies
	Provide financial assistance

Key Stakeholder	Area of Interest and Role in AMP
Federal Government Departments	Development of State and Federal strategies
	Provide financial assistance

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failure
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

The Road Infrastructure AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032

Council’s goal is to achieve this in an efficient, cost effective manner while remaining ecologically sustainable and to investigate the future delivery of services.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”

Our commitment to the Community:

- We will deliver high quality, innovative, consistent and responsive services to the community.
- We respect the rights of everyone to be treated fairly.
- We will keep our community informed about Council services and financial position.
- We will continually strive to improve our services to the community and encourage community engagement.
- We will deliver increased effort in the protection of the environment.

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 2.

Table 2: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Maintaining and developing our infrastructure network to meet the ongoing needs of our population	Provide for replacement, improvement and additional Community open space infrastructure through best practice and risk management.	By providing for the cost effective development, upgrade, renewal and maintenance of road infrastructure assets in the Shire.
	Upgrade and maintain the road network and bridges.	By proactively surveying the asset condition of our road network we will understand and make long term plans for a sustainable infrastructure

4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. To achieve and maintain acceptable levels of service for Council’s road network, a system of setting, recording and reviewing service levels achieved with the assistance of Community is required. Future iterations of this plan will involve further and more detailed community consultation in this regard. The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements.

4.1 Community Consultation

Future revisions of the Road AMP will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company: Micromex Research Consultants.

This survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of activities, facilities and services (52 in total), including road infrastructure assets. A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013, 2015 and 2017 using a mix of phone and face to face surveys. The results for road infrastructure assets combined are summarised in Table 3 and show that the performance gap is reducing.

Table 3: Survey Results for Road Infrastructure Assets

Years	Measure	Importance	Satisfaction	Performance Gap
2010	Road Maintenance	4.66	2.37	2.29
	Footpaths	4.18	3.04	1.14
	Cycle ways	3.50	2.87	0.63
2013	Road Maintenance	4.73	2.31	2.42
	Footpaths	4.22	3.11	1.11
	Cycle ways	3.50	3.10	0.40
2015	Road Maintenance	4.69	2.56	2.13
	Footpaths	4.08	3.17	0.91
	Cycle ways	3.42	3.12	0.30
2017	Road Maintenance	4.64	2.52	2.12
	Footpaths	4.08	3.05	1.03
	Cycle ways	3.33	2.97	0.36

Source: Community Research, Micromex Research (November 2017)

Road maintenance has consistently been the service with the highest performance gap since 2010 and, when benchmarked against other local governments, has the third highest variance in satisfaction of -0.38 with cycle ways also listed as twelfth at -0.26.

4.3 Strategic and Corporate Goals

The Road Infrastructure AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 4 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 6.2.

Table 4: Road Assets

Focus Areas	Objectives
Customer Service	Meet Levels of Service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business

Focus Areas	Objectives
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations as shown in Table 5.

Table 5: Legislative Requirements

Legislation	Requirement
Local Government Act, 1993 and Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
OLG Integrated Planning NSW	Key requirement is to integrated community plans with operational and delivery plans.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.
Waste Avoidance and Recovery (WARR) Act 2001	Establishes the need to avoid/minimise waste, increase resource use efficiency/reduce natural resource consumption, and minimise environmental impact through ecologically sustainable development and sustainable waste management systems.
Environmental and Penalties Act 1989	Details Council’s environmental responsibilities and the penalties to be applied if these are not met
WHS Act and Regulations	Council must ensure a safe workplace for all its employees and the public

4.5 Current Levels of Service

There are two defined service levels, Community LOS and Technical LOS.

Community Levels of Service

Measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

- Quality How good is the service?
- Function Does it meet users’ needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. maintenance grading, heavy patching, pothole repairs etc.)
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. bitumen resealing, gravel re-sheeting, rehabilitation etc.)
- Upgrade – the activities to provide a higher level of service (e.g. widening roads, extension of bitumen seal).

The road infrastructure assets level of service are summarised in Table 6. The full levels of service (LOS) table including performance measures and targets are detailed in Section 8.2.

Table 6: Road LOS

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
Community Levels of Service				
Quality	Assets are maintained to a satisfactory level of service	Complaints from residents regarding road maintenance	< 300 complaints per year	To be assessed
		Community Surveys	Rise in community satisfaction (close the performance gap)	

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
Function/ Capacity	Road network is available, functional and consistent for the required road classification and hierarchy	Complaints from resident’s functionality or capacity of the road network (width, surface type, alignment)	< 50 complaints per year	To be assessed
		Community Surveys	Rise in community satisfaction (close the performance gap)	
Safety	Roads are free from obstructions and hazards	Customer complaints relating to safety/ obstruction issues not being rectified in a timely manner	< 20 complaints per year	To be assessed
		Regularly convene a local road safety committee	Regular quarterly meetings	
Cost Effectiveness	Provide service in cost effective manner	Customer complaints relating to specific cost effectiveness issues	< 20 complaints per year	To be assessed
		Community Surveys	Rise in community satisfaction (close the performance gap)	
Technical Levels of Service				
Condition	Provide timely maintenance in accordance with RAMP	Outstanding defects from customer requests and condition assessments	Customer requests were completed in the response time	To be assessed
	Undertake condition assessments every 5 years	Assessments completed and outstanding defects logged	Assessments completed every 5 years and all defects logged	Largely compliant
Function/ Accessibility	Maintain access and amenity in accordance with use as per RAMP	Customer complaints related to road access	< 50	To be assessed
		New and upgraded road segments to be constructed to required standards and in accordance with road hierarchy	All new and upgraded roads meet required standards and consistent with Road Management Plan	Compliant
Safety	Maintain roads free from safety	RAMP Compliance	Meet RAMP requirements	Largely compliant

Key Service Attribute	Customer LOS	Performance measure	Performance Target	Current Performance
	defects and hazards	Undertake road inspections, in accordance with schedule in RAMP	Complete inspections in accord with RAMP requirements	
		Outstanding defects from customer requests	Complete inspections and defects in accord with RAMP requirements	
Cost Effectiveness	Provide service in cost effective manner	Road maintenance and capital works costs within budget	Meet budget expenditure with 100% planned maintenance and capital works completed	To be assessed

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The road asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

Table 7: Maintenance Activity - Desired Level of Service

Maintenance Activity	Road Classification	Desired Frequency
Unsealed Road Grading	Rural Collector (R1)	2 per annum
	Rural Access (R2)	2 per annum
	Rural Access (R3)	1 per annum or as programmed
	Rural Access (R4)	As programmed
Sealed Road – Shoulder Grading	Single lane sealed roads	2 per annum
	Dual lane sealed roads	1 per annum
Sealed Road - Potholes	All sealed roads	2 per annum
Sealed Road – Edge Breaks		

Table 8: Capital Activity - Desired Level of Service

Capital Activity	Road Classification	Desired Frequency
Unsealed Road Resheet	Rural Collector (R1)	20 year Cycle (4km per annum)
	Rural Access (R2)	20 year Cycle (12km per annum)
	Rural Access (R3)	30 year Cycle (18km per annum)

Capital Activity	Road Classification	Desired Frequency
	Rural Access (R4)	Gravel patching
Sealed Pavement Renewal or Rehabilitation	Regional Sealed Roads	35 year Cycle (5km per annum)
	Rural Sealed Roads	40 year Cycle (8km per annum)
	Urban Sealed Roads	40 year Cycle (3km per annum)
Bitumen Reseal	Regional Sealed Roads	12 year Cycle (15km per annum)
	Rural Sealed Roads	15 year Cycle (22km per annum)
	Urban Sealed Roads	15 year Cycle (8km per annum)
Footpath & Cycleway Renewal	Footpath and cycleway network	80-year useful life
		(0.4km per annum)
Kerb and Gutter Renewal	Urban Sealed Roads	80-year useful life
		(1.6km per annum)

5 FUTURE DEMAND

5.1 The Shire’s Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 9: Population Projections for Upper Hunter Shire reflecting an average annual growth rate of -0.50% pa.

Table 9: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Forecast

The key factors that directly impact the demand for road infrastructure assets are:

- Population growth
- Demographic changes
- Residential development
- Extension of services to towns and villages

Demand factor trends and impacts on service delivery are summarised in Table 10.

Table 10: Demand Factors

Demand Factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council’s population in 2016 was 14,350	Upper Hunter Shire Council’s population is predicted to decline over the next 10 years.	Negative growth rate will have a small decrease in demand
Demographics	28.6% of the Shire’s population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Housing occupancy ratios	There has been a long term trend to lower ratios over 20 plus years. Currently about 2.7 people per household	Whilst this has had a marked effect on housing demand in the past, it has stabilised somewhat with the trend towards young people staying at home much longer than in the past	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand
Climate Change	Awareness that climate change is occurring and its impact on road infrastructure	Increasing temperatures affects road maintenance techniques and deterioration rates	Development of new and improved techniques, policies and procedures
Climate Change	Extremes increasing	Higher intensity rainfalls in storm events	Significant spending required to maintain access and condition (though generally funded)

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 11: Changes to Technology.

Table 11: Changes to Technology

Technology Change	Effect on Service Delivery
Changes in construction and maintenance techniques	These changes will be assessed on merit and applied where a reduction in construction and maintenance costs, improved efficiency, quality and WH&S can be achieved
Introduction of new machinery, plant and equipment	
Introduction of new bitumen seal techniques and materials	Decreased frequency of bitumen reseal, increased useful life
Continual improvements in road infrastructure design principles	Increased useful life
Asset data capture by video inspection and the transportation of this information onto Council’s GIS	Spatial location and condition of assets able to be verified from GIS reducing the need for reactive inspections

5.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 12: Demand Management Plan. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 12: Demand Management Plan

Service Activity	Demand Management Plan
Road infrastructure maintenance	Routine inspections and repairs carried out in accordance with best practice principals.
Capital works	Schedule long term capital works plan
Development	Identify areas that may be subject to development

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor.

The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10-year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the Road Infrastructure AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019.
- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

The lifecycle management plan details how Council plans to manage and operate the road infrastructure assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. The road infrastructure assets and facilities are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council’s key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 3 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

Figure 3: Asset Lifecycle



6.1 Background Data

6.1.1 Physical parameters

The summary of the road infrastructure asset classes covered by this AMP are shown in Table 13: Road Components. The most recent information available for the quantities and total values are detailed in Section 8.

Table 13: Road Components

Road Infrastructure Assets Components	Useful Life (Years)	Length (km)
Primer-seal	70-80	630.64
Seal	12-15	630.64
Sealed Pavement (Non-Depreciable)	NA	630.64
Sealed Pavement (Depreciable)	70-80	630.64
Unsealed Pavement (Non-Depreciable)	NA	1,092.34
Unsealed Pavement (Depreciable)	30-60	1,092.34
Kerb and Gutter	80	125.67
Footpath/Cycleway	100	29.88

Road Infrastructure Assets Components	Useful Life (Years)	Length (km)
Earthworks	NA	1,722.98

6.1.2 Asset Capacity and Performance

Council’s services are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 14: Known Service Performance Deficiencies.

Table 14: Known Service Performance Deficiencies

Location	Service Deficiency
Sealed regional, rural and urban roads	Sealed pavement width is below the desired width for the road classification
Unsealed regional and rural roads	Pavement thickness is below the desired thickness for the road classification
Kerb & Gutter	Kerb and gutter is not allowing storm water to run smooth into the drainage network
Footpaths/cycle ways	Footpath or cycleway width is below the desired width for the road classification

The service deficiencies for road infrastructure network were identified from customer requests, condition assessments and technical investigations.

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, selected pavement investigations (rare) and video and data capture through ARRB assessments.

The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset. In taking these factors into account and the current revaluation cycle for assets Council has determined a condition inspection frequency for each asset class. The following inspection frequency has been adopted for each asset class for future condition surveys are shown in Table 15: Road Inspection Regime.

Table 15: Road Inspection Regime

Road Classification	Inspection Frequency	Delivery	Comment
Regional Sealed	100% every 5 years	External Supply	To be coordinated with the revaluation cycle
Regional Unsealed	100% every year	Internal	In accordance with IPWEA practice note 9
Rural Sealed	100% every 5 years	External Supply	To be coordinated with the revaluation cycle

Road Classification	Inspection Frequency	Delivery	Comment
Rural Unsealed	50% every year	Internal	In accordance with IPWEA practice note 9
Urban Sealed	100% every 5 years	External Supply	To be coordinated with the revaluation cycle
Urban Unsealed	50% every year	Internal	In accordance with IPWEA practice note 9
Kerb & Gutter	100% every 5 years	Internal	To be completed the year before the roads condition inspection
Footpath/Cycleway	100% every 5 years	Internal	To be carried out in conjunction with the sealed roads condition assessment

Council has also adopted for an independent survey of the sealed road network to be undertaken on a 4-5 year cycle. This involves the video captured, GPS and detailed defect identification and measurement (international roughness index, rutting, edge breaks, cacking, pavement failures etc.) which is then used to calculate an accurate condition.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 16: Visual Condition Assessment.

Table 16: Visual Condition Assessment

Rating	Condition	Description	Guide
1	Excellent	Sound physical condition. Asset likely to perform adequately without major work.	Normal maintenance required
2	Good	Acceptable physical condition, minimal short term risk of failure.	Normal maintenance plus minor repairs required (to 5% or less of the asset)
3	Satisfactory	Deterioration evident, failure in the short term unlikely. Minor components need replacement or repair now but asset still functions safely.	Significant maintenance and/or repairs required (to 10 - 20% of the asset)
4	Worn	Deterioration of the asset is evident and failure is possible in the short term. No immediate risk to health and safety.	Significant renewal required (to 20 - 40% of the asset)
5	Poor	Failed or failure is imminent or there is significant deterioration of the asset. Health and safety hazards exist which present a possible risk to public safety.	Over 50% of the asset requires renewal

Condition assessment

A desktop assessment of asset condition has been completed for the purposes of developing this AMP using the following method:

- Age and remaining life (based on design life)

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- Construction plans not yet updated in MapInfo
- 2012 survey information for the complex assets
- Council knowledge on a township and asset category basis.

This high level assessment of asset condition is summarised in Table 17: Assessed Road Infrastructure Condition Summary. Note that the percentages are based on replacement costs.

Table 17: Assessed Road Infrastructure Condition Summary

Road Infrastructure Assets Component	Asset condition grade				
	1	2	3	4	5
Seal (Primer-seal and Seal)	26.0%	60.0%	2.0%	1.0%	11.0%
Sealed Pavement (Depreciable & Non-depreciable)	33.0%	61.0%	3.0%	2.0%	1.0%
Unsealed Pavement (Depreciable & Non-depreciable)	21.0%	47.0%	26.0%	6.0%	0.0%
Kerb and Gutter	30.0%	44.0%	21.0%	4.0%	1.0%
Footpath	85.0%	12.0%	2.0%	1.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised below. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

- Gross Replacement Cost \$709,326,129
- Accumulated Depreciation \$ 64,789,736
- Depreciable Written Down Value \$ 315,099,013
- Earthworks Value \$329,437,380

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The written-down value of assets are based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle as depicted in Figure 4: Typical Road Pavement Consumption Depreciation Model.

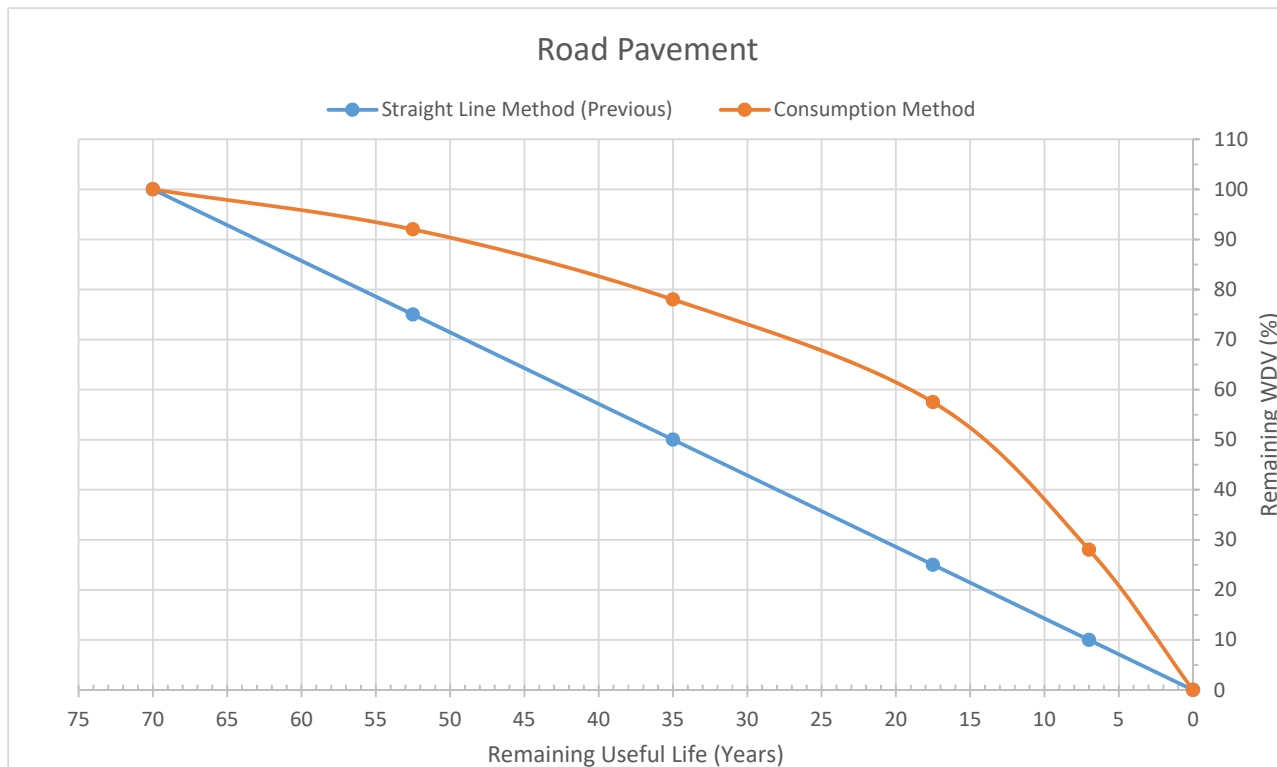


Figure 4: Typical Road Pavement Consumption Depreciation Model

The value of the road infrastructure assets recorded in the asset register are updated and valued annually with a major revaluation in completed every five years. The major revaluation considers suitability of design useful lives and changes them if necessary. It also uses the road infrastructure industry to estimate replacement costs and corrects the current replacement costs used where necessary.

The road infrastructure assets were revalued in June 2020, refer to the Upper Hunter Shire Council Road and Bridge Revaluation 2019/20. In preparation for the next major revaluation programmed for 2025/26 the road infrastructure assets will be reviewed in 2024/25.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes
- NSW Reference rates used for most assets replacement cost estimate.

There were major changes from previous valuations are:

- The adoption of the ‘consumption curve’ depreciation model (which replaced the straight line depreciation method)
- The componentisation of the bitumen seal into primer-seal and seal/reseal
- The development of a non-depreciable and depreciable pavement

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to road infrastructure assets is to ensure that:

Asset Management Plan – Roads

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council's road infrastructure assets include:

- Public health and safety
- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, bush fire or events such as events.

Risk identification for road infrastructure assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment and/or control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Options to treat risk posed by road infrastructure assets include (but not limited to):

- Risk elimination.
- Reduction in the cause or likelihood of the event occurring.
- Reduction in the consequence or severity of the event if it were to occur.
- Increasing the maintenance regime.
- Initiating council improvements.
- Changing operating processes and procedures.
- Sharing the risk through insurance or contracts.
- Doing nothing and accepting the risk.

Asset risks have been identified for the road infrastructure activity using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 18: Critical Risks and Treatment Plan shows the very high and high risks identified (top 3 only shown), the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 18: Critical Risks and Treatment Plan

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
Road infrastructure	Failure of segments of the road network	Loss of network connectivity	Condition inspections on 4-5 year basis.
		Greater travel time Loss of emergency access	Update Roads register, review funding required for future years
Road infrastructure	Road pavement / surface failure	Hazards to vehicular traffic	Roads designed and constructed to VicRoads and Council standards (Infrastructure Design Manual).
			Network inspected and maintained in accordance with RAMP.
Road infrastructure	Road delineation / sight distances	Hazards to vehicular traffic	Network inspected and maintained in accordance with RAMP.
	Obstructions	Hazards to vehicular traffic	Network inspected and maintained in accordance with RAMP.

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels such as responding to failures and defects.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.

Planned maintenance is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 19: Maintenance Expenditure Trends.

Table 18: Maintenance Expenditure Trends

Maintenance Expenditure	
Planned and Specific	Unplanned
30-40%	60-70%

Planned/cyclic maintenance work is between 30 to 40% of total maintenance expenditure depending on the frequency and number of customer requests received during the year. It is Council’s goal to increase this amount progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

There is currently a backlog of works, which indicates that existing maintenance expenditure levels are not adequate to meet required service levels. Somewhat more disconcerting, with reference to Appendix D, is the Asset Maintenance Ratio is declining against the benchmark of 100%. Once again this suggests a lack of funding of both capital and operational expenditure on road assets which, as a result, has led to a backlog of works and a deterioration of the networks condition.

The assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

Table 19: Required Maintenance and Cost to Bring to Satisfactory

Road Infrastructure Asset Components	Required Maintenance (\$)	Cost to Bring to Satisfactory Standard (\$)	Cost to Bring to Agreed Level of Service (\$)
Seal (Primer-seal & Seal)	-	-	-
Sealed Pavement (Non-Depreciable & Depreciable)	1,732,000	2,000,000	2,000,000
Unsealed Pavement (Non-Depreciable & Depreciable)	2,147,000	3,500,000	3,500,000
Kerb and Gutter	-	500,000	500,000
Footpath/Cycleway	70,000	250,000	250,000
TOTAL	3,949,000	6,250,000	6,250,000

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities

- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

A high level criticality assessment was completed in 2015 for Council’s infrastructural asset groups including the road infrastructure network. Different road infrastructure asset elements were assessed as high, medium or low criticality rating and are detailed in Table 20: Critical Road Infrastructure Assets. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 20: Critical Road Infrastructure Assets

	High	Medium	Low
Road classification	Regional Roads & Rural 1 Roads	Rural 2-3 Roads & Urban Streets	Rural 4 Roads
Waterway proximity	Road runs parallel to waterway	Road runs perpendicular to waterway	
Emergency services	Police, Fire brigade & Ambulance	Rural Firefighting Service & State Emergency Service	Airfield & Council Depots
Schools	40km/hr Zones		Yes
Bus routes	School bus route		Other bus route
Accident history	Fatality	Accident/Hospitalisation (>5)	Accident/Hospitalisation

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff in accordance with the Council standards and standard drawings.

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the road infrastructure network, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the network from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

6.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the condition survey and further detailed inspections. The average remaining lives of the road infrastructure components can be seen in Table 21: Average Remaining Life. Based on the age profile from the asset register the majority of the network is relatively young with considerable life remaining for the majority of the assets.

Renewals will be undertaken using ‘low-cost’ methods where practical. The aim of ‘low-cost’ renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Table 21: Average Remaining Life

Component	Regional		Rural		Urban		Concrete	
	Sealed	Unsealed	Sealed	Unsealed	Sealed	Unsealed	Footpath	Kerb & Gutter
Pavement (Depreciable)	58	28	60	33	57	51	-	-
Seal	13	-	12	-	11	-	71	26
Concrete	-	-	-	-	-	-	80	80

The decision criteria for road infrastructure renewals include, in descending importance:

- Accident potential
- Heavy vehicle volume
- Local network significance
- Regional network significance
- Light traffic volume
- Cost/Benefit ratio
- Existing maintenance costs
- Environmental issues

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
 - evaluate the options against evaluation criteria adopted by Council
 - select the best option to be included in capital renewal programs
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible

- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

Table 22: Required Renewal of Assets (by Length)

Road Infrastructure Asset Components	Useful Life (Years)	Length (km)	Required Renewal Length (km)
Seal (Primer-seal & Seal)	12-15	623.3	41.5
Sealed Pavement (Non-Depreciable & Depreciable)	70-80	623.3	7.8
Sealed Pavement (Non-Depreciable & Depreciable)	30-60	1,647.4	NA
Kerb and Gutter	80	123.5	1.5
Footpath/Cycleway	100	29.6	0.3

6.4.3 Renewal standards

Renewal work is always carried out to current standards and capacity unless a reduced capacity can be justified.

6.4.4 Summary of future renewal expenditure

On average renewals are 56.13% of the total capital expenditure for the next 10 years. Council has now placed a focus on asset renewals, with reference to Appendix D, the Infrastructure Renewal Ratio is over the benchmark of 100% for the next four years and goes some way to managing the road infrastructure backlog. Currently there is an estimated backlog of works between \$5.6 and \$7.3 million road infrastructure assets.

With a continued focus on asset renewal planning this should result in improved asset conditions, customer satisfaction levels, lower maintenance expenditure and the reduction or elimination of the backlog of works.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

As previously stated Council has an estimated backlog of works for road infrastructure assets of between \$5.6 and \$7.3 million. Table 22: Required Renewal of Assets (by Length) provides the length of assets that require renewal on a yearly basis, determined by the asset length and useful life. Although a rudimentary method, not taking into account asset conditions, this provides a simplistic guide of what should be achieved each year regarding renewals. Currently, the Infrastructure Backlog Ratio benchmark of 2% will not be met in the 10-year

period, although progress will be made with a focus now placed on asset renewals. To further complicate the subject, the fact that over 30% of the capital expenditure budget is reliant on Government Grants or other funding sources must be recognised and reinforced to pay the utmost importance and significance of successful applications. This may be acceptable together with alternative funding sources, unfortunately in many instances this is not the case. Therefore, if funding is either unsuccessful, lost or reduced those works will further contribute to and exponentially increase the back log of works.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.6 Selection criteria

New assets and upgrade/expansion of the existing road infrastructure are identified from the following:

- proposals identified by strategic plans or partnerships with other organisation
- urban and rural growth – increased development
- poor condition, under capacity road infrastructure network locations.

In preparing future works programs to upgrade/expand the road infrastructure network consideration is given to the following:

- capacity and condition of the existing road infrastructure network
- strategic locations to improve the quality of road infrastructure network

6.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. It is unlikely that any constructed sealed road would be disposed of while it is still in service. It is possible that if a sealed road is deemed underutilised then it may revert back to an unsealed road. There are no plans to dispose of any significant lengths of sealed road at this time.

In the carrying out of road realignment works existing road pavement materials may be ripped up and left in-situ or removed and reused elsewhere. For all practical purposes, the value of salvaged road and footpath materials is of little consequence.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the Road Infrastructure AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Note that expenditure forecasts (operational and capital) are based on the Delivery Program 2018/19-2022/2023 and Operational Plan 2022/23.

The improvements proposed for condition monitoring and establishing more accurate useful lives for the road infrastructure assets system will also be an input into that process.

7.1 Financial Projections

7.1.1 Financial Summary Overview

The total amount of forecasted expenditure for road infrastructure operations, maintenance and capital over the next ten years will be approximately \$240.9 million (as shown in Figure 1) with annual forecasted expenditure varying between \$15.8 and \$55.9 million per annum. This expenditure is divided into two main categories, being:

- Capital Expenditure (CAPEX), which is approximately \$119.7 million or 49.70% of total expenditure, and
- Operational Expenditure (OPEX), which is approximately \$121.2 million or 50.3% of total expenditure.

The CAPEX is further separated into three main subcategories being:

- Level of Service (LOS); which increases the service level delivered by the assets. This accounts for approximately \$32.8 million or 27.39% of total capital expenditure.
- Renewal; which replaces the asset as new. This equates to approximately \$67.2 million or 56.13% of total capital expenditure.
- Growth; refer to the expansion of the existing asset network. This accounts for approximately \$19.7 million or 16.48% of total capital expenditure.

Asset Management Plan – Roads

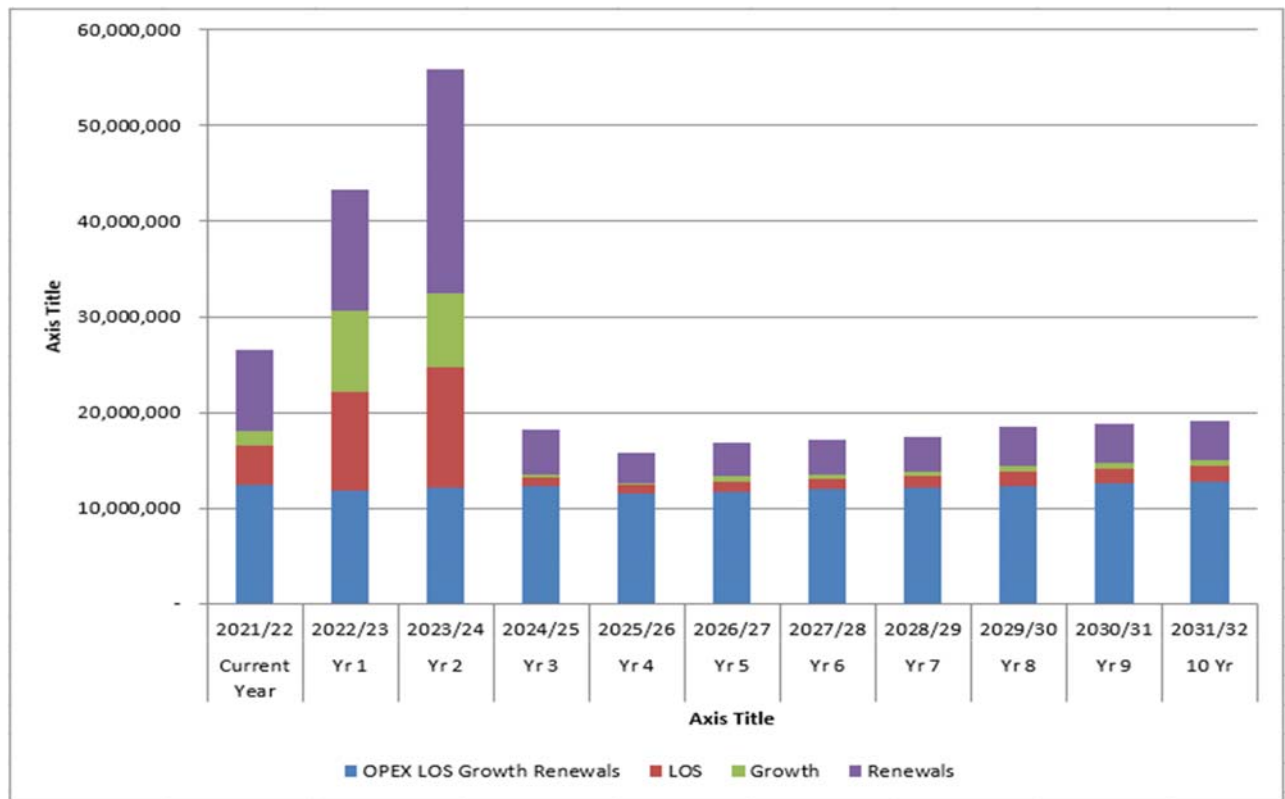


Figure 5: Summary of Road Assets Total Expenditure Forecast



Table 23: Summary of Road Assets Total Expenditure Forecast

Road Assets Summary	Current Year 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	10 Year 2031/32	10 Year Total
OPEX	12,504,508	11,818,405	12,120,352	12,254,237	11,557,738	11,745,286	11,937,732	12,135,206	12,337,831	12,545,751	12,759,103	121,211,641
LOS	4,079,199	10,254,815	12,616,037	991,250	823,250	1,064,250	1,119,250	1,274,250	1,464,250	1,519,250	1,674,250	32,800,852
Growth	1,491,267	8,475,594	7,682,908	241,250	156,250	466,250	411,250	411,250	666,250	611,250	611,250	19,733,502
Renewals	8,429,864	12,698,348	23,486,798	4,710,000	3,308,000	3,562,000	3,592,000	3,622,000	4,052,000	4,082,000	4,102,000	67,215,145
TOTAL	26,504,838	43,247,162	55,906,094	18,196,737	15,845,238	16,837,786	17,060,232	17,442,706	18,520,331	18,758,251	19,146,603	240,961,140

7.1.2 Operational expenditure summary

The recommended ten-year operational expenditure forecast is shown in Table 23: Summary of Road Assets Total Expenditure Forecast with \$240.9 million forecast over the next ten years.

Table 24: Summary of Road Infrastructure Assets – Operational Expenditure

Road Infrastructure Assets OPEX Summary	Current Year 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	10 Year 2031/32	10 Year Total
DIRECT ASSET COSTS												
Local Roads	5,267,000	4,490,500	4,736,635	4,796,441	4,016,185	4,146,129	4,279,499	4,416,381	4,556,868	4,701,058	4,849,051	44,988,747
Regional Roads	570,500	480,500	496,115	511,937	527,956	541,824	556,059	570,671	585,669	601,064	616,866	5,488,661
Transport Management	100,630	99,750	102,888	105,993	109,059	111,896	114,805	117,792	120,856	124,001	127,227	1,134,267
Footpaths/Cycle ways	70,000	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	725,000
INDIRECT ASSET COSTS												
Depreciation	4,826,542	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	49,019,670
Loan Payments	134,998	111,978	98,726	93,287	88,257	83,111	77,847	72,463	66,954	61,318	55,553	809,494
Corporate Overheads	1,534,838	1,661,210	1,711,521	1,772,112	1,841,814	1,887,859	1,935,055	1,983,432	2,033,017	2,083,843	2,135,939	19,045,802
TOTAL	12,504,508	11,818,405	12,120,352	12,254,237	11,557,738	11,745,286	11,937,732	12,135,206	12,337,831	12,545,751	12,759,103	121,211,641

7.1.3 Capital expenditure

There is a total of \$119.7 million for capital expenditure for the next ten years as shown in Table 24. Total annual renewals fluctuate between years with a ten-year average of \$6.7 million for road infrastructure assets. It is estimated that 27.39% of the capital expenditure is for LOS.

The full capital expenditure program is detailed in Appendix B.

7.2 Forecast Reliability and Confidence

The expenditure and valuations projections in the road infrastructure assets AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale, refer to Table 25: Data Confidence Grading System.

Table 25: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in Road Infrastructure Assets Services AMP is shown in Table 26: Data Confidence Assessment for Data used in AMP.

Table 26: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	B	
Growth projections	B	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.
Projected Renewal exps.		
- Asset values	B	Asset revaluation completed in June 2020. Major revaluation scheduled for every five years and due 2025.

Data	Confidence Assessment	Comment
- Asset useful lives	B	Useful lives were last reviewed in June 2019 and will be reviewed in 2024/25 prior to the major asset revaluation planned for 2025.
- Condition modelling	C	There has been limited condition information collected and therefore no modelling undertaken to date.
- Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
- Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally, as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as uncertain confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 5.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a ‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels:

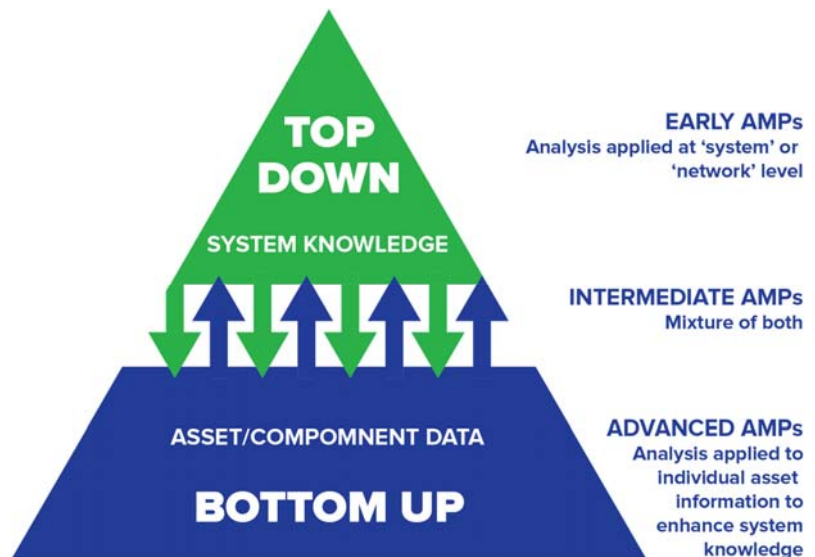


Figure 5: Core versus Advanced Asset Management Status

8.1.1 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year's achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council's maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the road infrastructure assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are further investigated to determine if the works upgrade or extend the lifecycle of the assets before capitalisation of the costs are recognised.

Required changes to accounting financial systems arising from this AMP

Areas that need to be investigated include establishing an integrated work orders system for road infrastructure assets. This will allow for a thorough costing of the planned, cyclic and reactive maintenance tasks. This process has advanced for other sections of Council, and now needs to be extended to the Road Infrastructure Assets System.

8.1.2 Asset registers and management systems

Currently an excel database is used, supplemented by spreadsheets and Content Manager documentation. There is a need to transfer this into CONFIRM so that all asset classes will be into this asset management system. There is also a need to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system. Currently, there is no link between asset management systems and accounting systems. In order for this AMP to grow in maturity and improve in accuracy it is vital that integration of asset register systems and financial systems be achieved.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded
- The link between the financial plan, asset plan and the works order system will be addressed in the future
- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.
- The process for updating CONFIRM is currently ad hoc and under resourced. Asset updates are mainly undertaken for audit reporting purposes rather than for long term asset management planning. A sound and

complete asset inventory is essential for Council to manage Road Infrastructure Assets services sustainably. This is recognised as a very high improvement task.

8.2 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The three year improvement programme is summarised in Table 27.

Table 27: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2024/25	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the road infrastructure asset inventory, collection of asset repair data, and updating asset condition assessment records.	2021/22	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the road infrastructure network.	2021/22	High	Strategic Assets, Operations Services
	Revise and improve the effectiveness of the current road infrastructure renewal program	2021/22	High	Strategic Assets
Risk management	Develop an Emergency Response Plan for the critical road infrastructure assets.	2021/22	High	Strategic Assets, Internal Auditor/Risk Co-coordinator
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	High	Strategic Assets, Information Technology, Operations Services

8.3 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans

9 LATEST ASSET and LOS INFORMATION

9.1 Road Infrastructure Assets asset summary

A summary of the Shire’s Road Infrastructure asset class values as at 30 June 2021 are shown at Table 28 Value of Road Infrastructure Assets asset classes.

Table 28: Value of Road Infrastructure Assets asset classes

Road Asset Class	Length (km)	Earthworks	Current Replacement Value (\$)	Accumulated Depreciation (\$)	Written Down Value (WDV) (\$)
Regional Unsealed	-	-	-	-	-
Regional Sealed	174.4	66,436,957	158,355,606	14,300,348	144,055,258
Rural Sealed	335.5	77,738,958	180,946,813	11,302,609	169,644,204
Urban Sealed	120.7	24,361,801	68,462,448	6,351,560	62,110,888
Rural Unsealed	1,070.6	158,795,451	257,354,945	25,016,409	232,338,536
Urban Unsealed	21.7	2,104,213	4,219,261	209,553	4,009,708
Kerb & Gutter	12.5	-	33,080,921	6,197,288	26,883,633
Footpath	29.6	-	6,906,135	1,411,969	5,494,166
TOTAL	1,765	329,437,380	709,326,129	64,789,736	644,536,393

Source: Council’s Asset Register (as at 30 June 2021)

9.2 Service Level Summary

The levels of service and performance measures for Road Assets services are summarised in Table 29.

Table 29: Road Infrastructure Assets Services Level and Performance Measure Summary

Service	Statement of Commitment	Measure	Yearly Target
Footpaths and Cycleways	To provide and maintain a safe cycleway and footpath network across Council.	The percentage of network in Condition 3 (Fair) or better.	> 95%
		The percentage of capital works completed.	> 90%

Asset Management Plan – Roads

Service	Statement of Commitment	Measure	Yearly Target
		The percentage of capital works completed within yearly budget allocation.	> 90%
		The number of complaints received concerning unsafe conditions of footpath and cycleway surfaces.	< 10
		The frequency of inspections on high volume footpaths and cycleways.	2
		The frequency of inspections on low to medium volume footpaths and cycleways.	1
Roads - Local	All roads will be inspected and maintained in accordance with industry standards and specifications.	The percentage of the local sealed road network inspected.	> 90% or 410km
		The percentage of the local unsealed network inspected.	> 90% or 990km
		The percentage of capital projects completed.	> 90%
		The percentage of capital projects completed within budget allocation.	> 90%
		The percentage of unsealed road grading completed.	> 90%
		The total length of reseals on the local sealed road network.	> 30km
Roads - Regional	All roads and bridges to be inspected and maintained in accordance with industry standards and specifications	The percentage of the regional road network inspected.	> 100% or 174km
		The percentage of regional bridges & major culverts inspected.	> 100% or 45
		The percentage of capital projects completed.	> 90%
		The percentage of capital projects completed within budget allocation.	> 90%
		The length of reseals on the regional sealed road network.	> 15km
Transport Ancillaries	Signs will be changed on an average of 15-year cycle and pavement markings will be repainted as required.	The percentage of traffic signs and road markings maintained in good condition.	> 90%
	Transport service assets will be maintained to acceptable standards	The percentage of capital works completed.	> 90%
		The percentage of capital projects completed within budget allocation.	> 90%

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 30. The ten-year asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 30: Asset performance indicators

Ratio	Purpose	2020/21	Benchmarks	Achieved	Comments
Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	73.24%	>100%	No	Renewals planned over the next four year average will exceed benchmarks significantly This is heavily reliant on successful grant funding
Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory condition/ value of assets)	To assess the infrastructure backlog against the total value of council's infrastructure	1.63%	<2%	No	18% of assets are in condition >3 8% of assets are in condition >4
Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	116.00%	>100%	Yes	Maintenance expenditure is currently meeting the calculated required maintenance.
Capital Expenditure Ratio (assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	1.35	>1.1	Yes	Capital expenditure planned over the next ten year average is favourable to the benchmarks

It must be noted that all these ratios are purely based on financial information not the physical infrastructure that has been renewed. That is to say, that although Council is financially meeting the benchmark of renewals but may in fact not be physically due to the increased cost of renewals. For example, the average cost for renewing one kilometre of road may have \$250,000 this same work may now be costing \$400,000. So financially Council is meeting its requirements and benchmarks, it may in fact be physically increasing the 'backlog of works'. This has serious consequences moving into the future regarding budgets, levels of service and overall sustainability.

Specifically the Infrastructure Renewal Ratio (Renewals/Depreciation) for 2020/21 for road infrastructure assets is 73.24% this is lower than the benchmark of 100%. Due to the amount of State and Federal Government grant funding received, renewals planned over the next three years will reach benchmarks.

Specifically the Infrastructure Backlog Ratio (Cost to Bring to Satisfactory/Written Down Value) for 2020/21 for road infrastructure assets is 1.63% which is lower than the benchmark of 2%. The cost to bring to satisfactory is calculated by using a percentage of the replacement cost for assets in condition three (25%), four (50%) and five

(70%). An increase in capital expenditure with a clear focus on renewal programs and/or an increase in operational expenditure with a strategic emphasis on efficient and effective planned maintenance regimes should assist in reducing this for the future.

Specifically the Asset Maintenance Ratio (Asset Maintenance Expense/Required Maintenance) for 2020/21 for road infrastructure assets is 95% and does not meet the agreed benchmark of 100%. Furthermore, this ratio worsens over the ten-year period. This indicates that an increase in operational expenditure is required to ensure the assets are maintained to an acceptable level of service and that premature renewals are not required. If this is not rectified the assets will have a declining condition and require much higher investments in asset renewals.

Specifically the Capital Expenditure Ratio (Capital Expenditure/ Depreciation) for road infrastructure for 2020/21 is 1.73 which is higher than the benchmark of 1.10. Much like the Infrastructure Renewal Ratio this does not provide a clear indication of capital expenditure with large proportion of projects either partially or fully reliant of external funding programs through the State and Federal Government initiatives or other sources.

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

- Appendix A Acronym Glossary
- Appendix B Projected 10 Year Capital Renewal, Replacement and New Works Program

Asset Management Plan – Roads

- Appendix C Sealed Road Network Expansion – Initial Seal Program
- Appendix C Operational Expenditure
- Appendix D Forecast of Asset Ratios to Local Government benchmarks
- Appendix E Road Infrastructure Assets Services Activity Risk Register
- Appendix F Glossary/ Definitions

Appendix A – Acronym Glossary

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value



Appendix B – Projected 10-year Capital Renewal, Replacement and New Works Program

PROJECT DESCRIPTION	Type of Works			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 YEARS
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
LOCAL ROADS CAPITAL PROJECTS																	
0834. Timor Rd, Mdi	20%		80%	768,000	960,000	-	-	-	500,000	460,000	-	-	-	-	-	-	960,000
1001. Ringwood Road Upgrade	20%		80%	-	-	400,000	-	-	-	-	-	-	-	-	-	-	-
1283. Urban Rd Reseals			100%	4,540,000	4,540,000	105,000	400,000	420,000	430,000	440,000	450,000	460,000	470,000	480,000	490,000	500,000	4,540,000
1284. Rural Rd Reseals			100%	8,120,000	8,120,000	340,000	740,000	780,000	790,000	800,000	810,000	820,000	830,000	840,000	850,000	860,000	8,120,000
4078. Farram Lane Construction	50%		50%	-	-	270,000	-	-	-	-	-	-	-	-	-	-	-
4861. Village Streets Initial Seal	50%	50%		-	400,000	-	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	400,000
4862. Village Streets Shoulder Initial Seal	50%	50%		-	400,000	-	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	400,000
4894. Comiala Road Rehabilitation	30%	20%	50%	200,000	400,000	-	-	-	400,000	-	-	-	-	-	-	-	400,000
4986. Local Sealed Road Heavy Patching	20%		80%	1,200,000	1,500,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,500,000
4987. Local Unsealed Roads Resheet	20%		80%	4,880,000	6,100,000	1,550,000	1,100,000	1,100,000	1,100,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	6,100,000
4989. Local Roads & Streets ARRB	100%			-	365,000	-	125,000	-	-	80,000	-	-	80,000	-	-	80,000	365,000
5247. Moonan Brook Rd MR105 Seal & Upgrade	30%	40%	30%	1,562,180	5,207,268	75,000	5,207,268	-	-	-	-	-	-	-	-	-	5,207,268
5248. Rouchel Rd Upgrade	80%	20%		-	57,000	-	57,000	-	-	-	-	-	-	-	-	-	57,000
5252. Rouchel Rd Ch19.6-20.2 Rehab & Widening	20%		80%	-	-	93,000	-	-	-	-	-	-	-	-	-	-	-
5256. K&G Renewal - Mayne St Mdi	20%		80%	-	-	185,053	-	-	-	-	-	-	-	-	-	-	-
5259. Urban Streets K&G Renewal	50%		50%	1,000,000	2,000,000	-	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,000,000
5290. Mount St Mdi K&G	50%		50%	-	-	4,000	-	-	-	-	-	-	-	-	-	-	-
5392. Culvert Subsidence	20%		80%	400,000	500,000	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000
5407. Hunter Rd - Naracoote to Glenmore Brg	30%	40%	30%	600,000	2,000,000	53,000	-	2,000,000	-	-	-	-	-	-	-	-	2,000,000
5408. Hunter Rd - Shallow Crossing-Ellerston	30%	40%	30%	1,251,000	4,170,000	18,000	-	4,170,000	-	-	-	-	-	-	-	-	4,170,000
5409. Barrington Forest Rd - Initial Seal Stg1	30%	40%	30%	750,000	2,500,000	30,000	2,500,000	-	-	-	-	-	-	-	-	-	2,500,000
5410. Barrington Forest Rd - Initial Seal Stg2	30%	40%	30%	941,906	3,139,687	30,000	1,500,000	1,639,687	-	-	-	-	-	-	-	-	3,139,687
5492. Stafford & Liverpool Sts Intersection	20%		80%	-	-	67,104	-	-	-	-	-	-	-	-	-	-	-
5504. Kars Springs Stormwater	50%		50%	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-
5528. Pages Creek Road Upgrade	50%		50%	-	-	18,000	-	-	-	-	-	-	-	-	-	-	-
5548. Hacketts Rd Merriwa	50%		50%	-	-	80,000	-	-	-	-	-	-	-	-	-	-	-
5549. Bow St (fr Blaxland St to MacCartney St)	20%		80%	128,000	-	-	160,000	-	-	-	-	-	-	-	-	-	160,000
5550. Idaville Rd Rehabilitation	20%		80%	320,000	-	-	-	-	400,000	-	-	-	-	-	-	-	400,000
5551. Cullingral Rd Rehabilitation	20%		80%	280,000	-	-	-	-	350,000	-	-	-	-	-	-	-	350,000
5553. Moobi Rd Rehabilitation	30%	20%	50%	75,000	-	-	-	-	150,000	-	-	-	-	-	-	-	150,000
5555. Victoria St Mdi - Rehabilitation	30%	20%	50%	200,000	-	-	400,000	-	-	-	-	-	-	-	-	-	400,000
5556. Yarrandi Rd - Initial Design/Studies	30%	40%	30%	25,200	-	-	84,000	-	-	-	-	-	-	-	-	-	84,000
5557. Middlebrook Rd - Initial Design/Studies	30%	40%	30%	12,600	-	-	42,000	-	-	-	-	-	-	-	-	-	42,000

Asset Management Plan – Roads



PROJECT DESCRIPTION	Type of Works			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 YEARS
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
5559. Muffett Street Overpass Investigations		100%		-		-	500,000	-	-	-	-	-	-	-	-	-	500,000
LOCAL ROADS - ROADS TO RECOVERY CAPITAL PROJECTS																	
4444. R2R Capital Projects Future Yrs	40%	20%	40%	4,560,000	11,400,000	-	-	-	-	-	1,400,000	1,400,000	1,400,000	2,400,000	2,400,000	2,400,000	11,400,000
4734. Muffett St Reconstruction	20%		80%	-	-	500,000	-	-	-	-	-	-	-	-	-	-	-
4772. R2R Tullong Rd Rehab (0.4Km-0.9km)	20%	10%	70%	-	-	261,000	-	-	-	-	-	-	-	-	-	-	-
4988. R2R Urban Streets K&G Renewals	50%		50%	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-
5816. R2R Aberdeen Public School Graeme St Upgrade	50%		50%	-	-	481,000	-	-	-	-	-	-	-	-	-	-	-
LOCAL ROADS – ROAD SAFETY PROGRAMME																	
5539. RSP Rouchel Rd - Install Guardrail	100%			-	304,515	-	-	304,515	-	-	-	-	-	-	-	-	304,515
5540. RSP Glenbawn Rd - Shoulder Wide & Guardrail	100%			-	779,476	-	500,000	279,476	-	-	-	-	-	-	-	-	779,476
5541. RSP Timor Rd - Shoulder Wide & Guardrail	100%			-	957,627	-	272,520	685,107	-	-	-	-	-	-	-	-	957,627
LOCAL ROADS – REMOTE ROADS UPGRADE PROGRAMME																	
5536. Pages Creek & Sargeants Gap Rds Upgrades	50%		50%	299,468	598,935	-	598,935	-	-	-	-	-	-	-	-	-	598,935
REGIONAL ROADS CAPITAL PROJECTS																	
1285. Regional Rd Reseals			100%	5,640,000	5,640,000	150,000	520,000	530,000	540,000	550,000	560,000	570,000	580,000	590,000	600,000	600,000	5,640,000
4771. Repair - Gundy Rd (MR105 0.8 km- 1.3km)	30%		70%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4773. MR105 Repair Works	30%		70%	770,000	1,100,000	-	-	-	-	-	-	550,000	-	-	550,000	-	1,100,000
4860. Repair Program Works MR62	30%		70%	1,155,000	1,650,000	-	-	-	-	550,000	-	-	550,000	-	-	550,000	1,650,000
4913. R2RMR105 Repair - 26km to Belltrees Hill	30%		70%	395,500	565,000	905,000	565,000	-	-	-	-	-	-	-	-	-	565,000
4943. R2R Glenbawn & MR105 Intersection	30%		70%	175,000	250,000	-	250,000	-	-	-	-	-	-	-	-	-	250,000
4977. R2R - Hunter Road Half Moon	50%	30%	20%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4978. MR358 - Repair Program Works	20%	10%	70%	350,000	500,000	-	-	-	500,000	-	-	-	-	-	-	-	500,000
4979. MR618 - Repair Program Works	20%	10%	70%	1,120,000	1,600,000	-	-	500,000	-	-	550,000	-	-	550,000	-	-	1,600,000
4984. Regional Heavy Patching Program	20%		80%	1,200,000	1,500,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,500,000
4985. Regional Roads ARRB	100%			-	300,000	-	75,000	-	-	75,000	-	-	75,000	-	-	75,000	300,000
5260. MR62 Ollerton Dr to Sophia Creek Rd	30%	30%	40%	-	-	733,000	-	-	-	-	-	-	-	-	-	-	-
5261. MR62 Sophia Crk Bridge to Cuan Shearing	30%	10%	60%	-	-	3,705,000	-	-	-	-	-	-	-	-	-	-	-
5262. MR105 Culvert Subsidence Repairs	40%		60%	270,000	450,000	150,000	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	450,000
5266. MR105 Hunter Rd Rehabilitation	40%		60%	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Management Plan – Roads



PROJECT DESCRIPTION	Type of Works			COST OF RENEWALS	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TOTAL 10 YEARS
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
5288. MR358 - Coulsons Creek Rd Rehabilitation	20%		80%	20,000,000	25,000,000	1,200,000	5,000,000	20,000,000	-	-	-	-	-	-	-	-	25,000,000
5339. Bunnan Rd Bunnan Bridge 0.07-0.97km	30%	10%	60%	-	-	320,000	-	-	-	-	-	-	-	-	-	-	-
5479. MR62 Bunnan Rd - Shoulder Widen & Seal	50%		50%	-	-	158,802	-	-	-	-	-	-	-	-	-	-	-
5545. MR62 - Ridgeland St Intersection Upgrade	100%			-	-		71,620	-	-	-	-	-	-	-	-	-	71,620
5546. MR62 - Blaydon St Intersection Upgrade	100%			-	-		71,620	-	-	-	-	-	-	-	-	-	71,620
5547. MR105 Gundy Rd - Guardrail	100%			-	-		71,620	-	-	-	-	-	-	-	-	-	71,620
TRANSPORT ANCILLARIES CAPITAL PROJECTS				700,000	1,000,000	-	-	-	500,000	-	-	-	500,000	-	-	-	1,000,000
0747. Bus Shelter Capital Works	50%	50%		-	200,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000
0749. CBD & Street Furniture	50%	20%	30%	-	-	20,000											-
0753. Town Revitalisation - Scone	40%	40%	20%	3,484,291	17,421,457	428,188	8,727,000	8,694,457		-	-	-	-	-	-	-	17,421,457
0775. Regional Rd Guardrail Replacement		50%	50%	250,000	500,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000
4898. 133 Kelly Street Scone	50%	50%		-	-	560,948	-	-	-	-	-	-	-	-	-	-	-
4079. Street Signs	50%	50%		-	125,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	125,000
5498. St Aubins St Town Square Green	50%	50%		-	2,000,000	-	100,000	1,900,000	-	-	-	-	-	-	-	-	2,000,000
FOOTPATH AND CYCLEWAYS CAPITAL PROJECTS																	-
1182. Ftpth - Pages River Walk, Mdi	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-
4080. Ftpth - Mwa Extension	50%	50%		-	-	50,000	932,674	-	-	-	-	-	-	-	-	-	932,674
4083. Ftpth - Graeme St (McQueen to Segenhoe)	50%	50%		-	-	120,000	-	-	-	-	-	-	-	-	-	-	-
4327. Kerb Ramp Upgrade	50%		50%	100,000	200,000	-	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	200,000
4352. Scn - Moobi Rd Cycleway	50%	50%		-	30,000	86,735	30,000	-	-	-	-	-	-	-	-	-	30,000
4928. Ftpth - Waverley St East (Short to Liv)	50%	50%		-	-	-	-	-	-	-	-	-	-	-	-	-	-
4929. Ftpth - Bedford St (Hwy - Segenhoe)	50%	50%		-	50,000	-	-	-	50,000	-	-	-	-	-	-	-	50,000
4930. Ftpth - Footpath/Cycleway Expansion	50%	50%		-	700,000	-	-	-	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
4974. Ftpth - Segenhoe St Abn (NEH-Graeme)	50%	50%		-	-	100,000	-	-	-	-	-	-	-	-	-	-	-
4975. Footpath Renewals	20%		80%	192,000	240,000	-	-	-	-	40,000	40,000	40,000	40,000	40,000	40,000	40,000	240,000
5310. MWA TR Bettington St Footpath	50%	50%		-	-	150,000	-	-	-	-	-	-	-	-	-	-	-
5531. Ftpth - Scone VIC	50%	50%		-	-	20,000	-	-	-	-	-	-	-	-	-	-	-
5544. Ftpth - Cassilis Public School Coolah Rd	50%	50%		-	-	-	45,000	-	-	-	-	-	-	-	-	-	45,000
5558. Ftpth - Waverley St (Short to Liverpool)	50%	50%		-	-	-	50,000	-	-	-	-	-	-	-	-	-	50,000
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD					119,749,499	14,000,330	31,428,757	43,785,742	5,942,500	4,287,500	5,092,500	5,122,500	5,307,500	6,182,500	6,212,500	6,387,500	119,749,499
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				67,215,145													



Appendix C – Sealed Road Network Expansion – Initial Seal Program

Priority	Road Name	Location	Length (km)
1	Hunter Road	to Ellerton	16 km
2	Middlebrook Road	to Washpools	4 km
3	Cliftlands Road	Full length	4 km
4	Yarrandi Road	Full Length	6 km



Priority	Road Name	Location	Length (km)
5	Moonan Brook Road	to Moonan Brook Camp Grounds	6 km
6	Wollar Road	Full Length	13 km
7	Forest Reserve Road	Full Length	7 km
8	Timor – Crawney Road		18 km
9	Waverley Road	Full Length	26 km
10	Kars Springs Road	Full Length	15 km
11	Upper Dartbrook Road	Full Length	
12	Barrington Forest Road	Full Length	11 km
13	Tomalla Road	to Pheasants Creek Road	20 km
14	Ridgeland Road	Full Length	17 km
15	Pembroke Road	Full Length	10 km

Appendix D – Operational Expenditure

Table 31: Operational & Maintenance Expenditure Summary

ROADS OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Direct asset costs												
Local Roads	5,267,000	4,490,500	4,736,635	4,796,441	4,016,185	4,146,129	4,279,499	4,416,381	4,556,868	4,701,058	4,849,051	44,988,747

Asset Management Plan – Roads



ROADS OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Regional Roads	570,500	480,500	496,115	511,937	527,956	541,824	556,059	570,671	585,669	601,064	616,866	5,488,661
Transport Ancillaries	100,630	99,750	102,888	105,993	109,059	111,896	114,805	117,792	120,856	124,001	127,227	1,134,267
Footpaths and Cycleways	70,000	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	725,000
Indirect asset costs												
Depreciation	4,826,542	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	49,019,670
Loan interest	134,998	111,978	98,726	93,287	88,257	83,111	77,847	72,463	66,954	61,318	55,553	809,494
Corporate Admin Overheads	1,534,838	1,661,210	1,711,521	1,772,112	1,841,814	1,887,859	1,935,055	1,983,432	2,033,017	2,083,843	2,135,939	19,045,802
TOTAL	12,504,508	11,818,405	12,120,352	12,254,237	11,557,738	11,745,286	11,937,732	12,135,206	12,337,831	12,545,751	12,759,103	121,211,641

Table 32: Operational & Maintenance Expenditure - Local Roads

Local Road OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Direct asset costs												
Administration Costs	225,000	217,000	224,260	231,617	239,068	245,099	251,283	257,623	264,123	270,788	277,621	2,478,482
Rural Rds (Sealed) Maintenance	-	60,000	61,950	63,887	65,805	67,450	69,136	70,865	72,636	74,452	76,314	682,495
Rural Rds (Unsealed) Maintenance	1,092,000	1,100,000	1,135,025	1,170,000	904,862	936,294	968,552	1,001,657	1,035,632	1,070,498	1,106,281	10,428,801
Urban Rds (Sealed) Maintenance	3,200,000	2,437,500	2,587,700	2,580,793	2,084,179	2,155,654	2,229,048	2,304,411	2,381,797	2,461,262	2,542,861	23,765,205
Urban Rds (Unsealed) Maintenance	725,000	650,000	696,750	718,239	689,409	707,894	726,842	746,263	766,169	786,573	807,488	7,295,627
Indirect asset costs												
Depreciation	3,922,864	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	3,888,827	38,888,270
Loan Interest – Local Roads	13,495	2,562	-	-	-	-	-	-	-	-	-	2,562
Loan Interest – Rural Roads	13,359	6,406	523	-	-	-	-	-	-	-	-	6,929
Corporate Admin Overheads	994,968	1,063,928	1,093,334	1,132,289	1,179,596	1,209,086	1,239,313	1,270,296	1,302,053	1,334,605	1,367,970	12,192,470
TOTAL	10,211,686	9,452,223	9,719,319	9,817,557	9,084,608	9,244,042	9,407,639	9,575,504	9,747,748	9,924,490	10,105,848	96,078,978

Table 33: Operational & Maintenance Expenditure - Regional Roads

Regional Road OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	10 Year	10 Year Total
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Direct asset costs												
Bridge & Culvert Maintenance (Sealed)	15,500	15,500	15,990	16,475	16,954	17,391	17,840	18,301	18,773	19,258	19,755	176,237
Regional Rds Maintenance	555,000	465,000	480,125	495,462	511,002	524,433	538,219	552,370	566,896	581,806	597,111	5,312,424

Asset Management Plan – Roads



Regional Road OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	10 Year	10 Year Total
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
Indirect asset costs												
Depreciation	833,911	931,344	931,344	931,344	931,344	931,344	931,344	931,344	931,344	931,344	931,344	9,313,440
Corporate Admin Overheads	404,305	448,047	463,729	479,959	496,758	509,177	521,906	534,954	548,328	562,036	576,087	5,140,981
Road Infrastructure No. 1 – Loan interest	108,144	103,010	98,203	93,287	88,257	83,111	77,847	72,463	66,954	61,318	55,553	800,003
TOTAL	1,916,860	1,962,901	1,989,391	2,016,527	2,044,315	2,065,456	2,087,156	2,109,432	2,132,295	2,155,762	2,179,850	20,743,085

Table 34: Operational & Maintenance Expenditure – Traffic Management

Transport Ancilliaries OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	10 Year	Total	10
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32		Year
Direct asset costs													
Bus Shelter Maintenance	6,000	7,000	7,225	7,453	7,685	7,891	8,102	8,319	8,542	8,771	9,006		79,994
Road Furniture Maintenance	3,000	3,000	3,095	3,189	3,282	3,367	3,454	3,543	3,635	3,729	3,825		34,119
Signs and Marking - Local Roads	50,000	60,000	61,875	63,719	65,525	67,218	68,955	70,737	72,565	74,441	76,365		681,400
Parking Area Maintenance	9,630	2,750	2,833	2,910	2,983	3,058	3,134	3,213	3,293	3,375	3,460		31,009
Traffic Facilities (Block Grant) Exp	32,000	27,000	27,860	28,722	29,584	30,362	31,160	31,980	32,821	33,685	34,571		307,745
Indirect asset costs													
Administration Overheads	42,281	53,852	53,852	53,852	53,852	53,852	53,852	53,852	53,852	53,852	53,852		538,520
Depreciation	135,565	149,235	154,458	159,864	165,460	169,596	173,836	178,182	182,636	187,202	191,882		1,712,351
TOTAL	278,476	302,837	311,198	319,709	328,371	335,344	342,493	349,826	357,344	365,055	372,961		3,385,138

Table 35: Operational & Maintenance Expenditure - Footpaths & Cycleways

Footpaths & Cycleways OPEX Summary	Current year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	10 Year	Total	10
Operating Expenditure	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32		Year
Direct asset costs													
Footpath/Cycleway Maintenance	70,000	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500	72,500		725,000
Indirect asset costs													
Depreciation	27,486	27,944	27,944	27,944	27,944	27,944	27,944	27,944	27,944	27,944	27,944		279,440
TOTAL	97,486	100,444	100,444	100,444	100,444	100,444	100,444	100,444	100,444	100,444	100,444		1,004,440

Appendix E – Identified Backlog of Works



Table 36: Kerb and Gutter Backlog of Works

Street Name	Locality	Start	End	Length (m)	K&G Type	Rating	Replacement Cost
Mayne	Murrurundi	Cohen	Boyd	40	Concrete	4	\$16,000.00
Mayne	Murrurundi	Boyd	Murulla	200	Sandstone, Concrete	5	\$80,000.00
Mayne	Murrurundi	Murrulla	Mount	100	Sandstone	5	\$50,000.00
Mayne	Murrurundi	Adelaide	Victoria	150	Sandstone	4	\$60,000.00
Murulla	Murrurundi	Causeway	Mayne	70	Open Drain	NA	\$28,000.00
Haydon	Murrurundi	Victoria	End	40	Sandstone, Open Drain	NA	\$16,000.00
Adelaide	Murrurundi	Liverpool	Mayne	100	Sandstone	4	\$40,000.00
Mayne	Murrurundi	Boyd	Murulla	200	Sandstone	5	\$80,000.00
Mayne	Murrurundi	Victoria	End	50	Sandstone, Concrete	4	\$20,000.00
Murulla	Murrurundi	Shield	Causeway	100	Sandstone, Steel, Gabion	5	\$40,000.00
Murulla	Murrurundi	Causeway	Mayne	70	Open Drain	NA	\$28,000.00
Haydon	Murrurundi	Victoria	End	10	Open Drain	NA	\$4,000.00
Adelaide	Murrurundi	Haydon	Liverpool	140	Sandstone	5	\$56,000.00
Adelaide	Murrurundi	Liverpool	Mayne	140	Sandstone	5	\$56,000.00
Aberdeen	Scone	Liverpool	Kingdon	100	Concrete	4	\$30,000
Barton	Scone	Causeway	Mulga	100	Concrete	3	\$30,000
Barton	Scone	Mulga	Birrell	80	Concrete	3	\$24,000
Barton	Scone	Birrell	Alabama	0	Concrete	4	\$-
Barton	Scone	Alabama	Little	30	Concrete	4	\$9,000
Barton	Scone	Little	Carlyle	30	Concrete	3	\$9,000
Barton	Scone	Carlyle	Bingle	30	Concrete	3	\$9,000
Barton	Scone	Bingle	Askin	30	Concrete	3	\$9,000
Barton	Scone	Askin	Gundy rd	20	Concrete	3	\$6,000
Birrell	Scone	Waverley	Oxford rd	50	Concrete	5	\$15,000
Birrell	Scone	Oxford Rd	Scott	40	Concrete	3	\$12,000
Birrell	Scone	Scott	Boronia	25	Concrete	3	\$7,500
Birrell	Scone	Boronia	Koala	10	Concrete	3	\$3,000
Guernsey	Scone	Liverpool	Kingdon	125	Concrete	5	\$37,500
Hill	Scone	Parker	Susan	50	Concrete	3	\$15,000
Hill	Scone	Susan	St Aubins	100	Concrete	3	\$30,000
Hill	Scone	St Aubins	Liverpool	150	Concrete	4	\$45,000
Hill	Scone	Liverpool	Kingdon	175	Concrete	4	\$52,500
Oxford Rd	Scone	Susan	Birrell	100	Concrete	3	\$30,000
Oxford Rd	Scone	Liverpool	Short	50	Concrete	3	\$15,000
Park	Scone	Susan	New	40	Concrete	3	\$12,000
Park	Scone	New	Liverpool	75	Concrete	3	\$22,500
Park	Scone	Liverpool	Short	150	Concrete	4	\$45,000
Park	Scone	Short	Gundy Rd	100	Concrete	3	\$30,000

Asset Management Plan – Roads



Street Name	Locality	Start	End	Length (m)	K&G Type	Rating	Replacement Cost
Phillip	Scone	Muffett	Main	120	Concrete	4	\$36,000
Phillip	Scone	Main	Waverley	150	Concrete	4	\$45,000
Sydney	Scone	Waverley	End	150	Concrete	4	\$45,000
Wareemba	Scone	Waverley	Sydney	150	Concrete	4	\$45,000
Waverley	Scone	Phillip	Wareemba	20	Concrete	3	\$6,000
Waverley	Scone	Wareemba	Sydney	20	Concrete	3	\$6,000
Waverley	Scone	Sydney	Susan	50	Concrete	3	\$15,000
Waverley	Scone	Fig tree G	New	75	Concrete	3	\$22,500
Waverley	Scone	Liverpool	Short	200	Concrete	5	\$60,000
Aberdeen	Scone	Liverpool	Kingdon	50	Concrete	3	\$15,000
Barton	Scone	Causeway	Mulga	50	Concrete	3	\$15,000
Barton	Scone	Mulga	Birrell	40	Concrete	3	\$12,000
Barton	Scone	Birrell	Alabama	50	Concrete	4	\$15,000
Barton	Scone	Alabama	Little	10	Concrete	3	\$3,000
Barton	Scone	Little	Carlyle	10	Concrete	3	\$3,000
Barton	Scone	Carlyle	Bingle	10	Concrete	3	\$3,000
Barton	Scone	Bingle	Askin	10	Concrete	3	\$3,000
Barton	Scone	Askin	Gundy Rd	10	Concrete	3	\$3,000
Birrell	Scone	Waverley	Oxford Rd	30	Concrete	4	\$9,000
Birrell	Scone	Oxford Rd	Scott	20	Concrete	3	\$6,000
Birrell	Scone	Scott	Boronia	10	Concrete	3	\$3,000
Birrell	Scone	Boronia	Koala	25	Concrete	5	\$7,500
Guernsey	Scone	Liverpool	Kingdon	75	Concrete	4	\$22,500
Hill	Scone	Parker	Susan	25	Concrete	3	\$7,500
Hill	Scone	Susan	St Aubins	50	Concrete	3	\$15,000
Hill	Scone	St Aubins	Liverpool	75	Concrete	4	\$22,500
Hill	Scone	Liverpool	Kingdon	80	Concrete	4	\$24,000
Oxford Rd	Scone	Susan	Birrell	50	Concrete	3	\$15,000
Oxford Rd	Scone	Liverpool	Short	50	Concrete	3	\$15,000
Park	Scone	New	Liverpool	40	Concrete	3	\$12,000
Park	Scone	Liverpool	Short	75	Concrete	4	\$22,500
Park	Scone	Short	Gundy Rd	60	Concrete	3	\$18,000
Phillip	Scone	Muffett	Main	60	Concrete	4	\$18,000
Phillip	Scone	Main	Waverley	75	Concrete	4	\$22,500
Sydney	Scone	Waverley	End	75	Concrete	4	\$22,500
Wareemba	Scone	Waverley	Sydney	200	Concrete	4	\$60,000
Waverley	Scone	Phillip	Wareemba	10	Concrete	3	\$3,000
Waverley	Scone	Wareemba	Sydney	10	Concrete	3	\$3,000
Waverley	Scone	Sydney	Susan	15	Concrete	3	\$4,500

Asset Management Plan – Roads



Street Name	Locality	Start	End	Length (m)	K&G Type	Rating	Replacement Cost
Waverley	Scone	Fig tree G	New	40	Concrete	3	\$12,000
Waverley	Scone	Liverpool	Short	175	Concrete	5	\$52,500
Graeme Street	Aberdeen	Bridge	Kyuga (east of intersection)		Concrete	3	\$15,800
Gundebri Street		Hall	River		Concrete	3	\$7,250
Hall Street	Aberdeen	MacQueen	Dart		Concrete	3	\$5,900
MacQueen RHS	Aberdeen	McAdam	Segenhoe		Concrete	5	\$31,500
MacQueen RHS	Aberdeen	Bedford	Eldon		Concrete	3	\$4,500
McAdam Street	Aberdeen	Butter Factory	End K & G		Concrete	3	\$13,500
Moray Street	Aberdeen	Segenhoe	MacQueen		Concrete	3	\$4,500
Segenhoe	Aberdeen	MacQueen	Moray		Concrete	3	\$4,500
Segenhoe	Aberdeen	Graeme	Bedford		Concrete	4	\$22,500
St Andrew	Aberdeen	Campbell	McLeod		Concrete	3	\$12,400
St Andrew	Aberdeen	McLeod	Graeme		Concrete	3	\$19,400
St Andrew	Aberdeen	Segenhoe	MacQueen		Concrete	3	\$9,500
Ancrum	Aberdeen	Branksome	Scott		Concrete	3	\$9,700
Branksome	CASSILIS	Buccleugh	Ancrum		Concrete	3	\$9,500
Buccleugh	CASSILIS	Branksome	Scott		Concrete	3	\$9,800
Scott	CASSILIS	Buccleugh	Ancrum		Concrete	4	\$24,900
Bettington RHS	CASSILIS	Vennacher	Marquet		Concrete	3	\$10,100
Bow	Merriwa	Blaxland	Bettington		Concrete	3	\$9,500
Bow	Merriwa	Bettington	MacKenzie		Concrete	3	\$9,500
Bow	Merriwa	MacKenzie	Cullingral		Concrete	3	\$4,500
Bow	Merriwa	Cullingral	Langley		Concrete	3	\$9,500
Bow	Merriwa	Langley	Hayes		Concrete	3	\$9,500
Brisbane	Merriwa	Gully	Bettington		Concrete	4	\$7,900
Cullingral	Merriwa	Bow	Vennacher		Concrete	3	\$9,500
Dutton	Merriwa	Blaxland	Bettington		Concrete	4	\$15,700
MacKenzie	Merriwa	Dutton	Bow		Concrete	3	\$9,500
Vennacher	Merriwa	Blaxland	Bettington		Concrete	3	\$9,500
Vennacher	Merriwa	Bettington	MacKenzie		Concrete	3	\$9,500
Vennacher	Merriwa	MacKenzie	Cullingral		Concrete	3	\$4,500
Vennacher	Merriwa	Cullingral	Langley		Concrete	3	\$9,500
Vennacher	Merriwa	Langley	Hayes		Concrete	3	\$10,100
Bedford	Aberdeen	Mount	Kyuga		Concrete	3	\$5,100
Bedford	Aberdeen	Kyuga	Campbell		Concrete	3	\$4,500
Graeme	Aberdeen	Bridge	Kyuga (east of intersection)		Concrete	3	\$15,900
Gundebri	Aberdeen	Hall	River		Concrete	3	\$7,500

Asset Management Plan – Roads



Street Name	Locality	Start	End	Length (m)	K&G Type	Rating	Replacement Cost
Hall Street	Aberdeen	MacQueen	Dart		Concrete	3	\$5,900
Hall Street	Aberdeen	Dart	Gundeabri		Concrete	3	\$1,800
MacQueen LHS	Aberdeen	Hall	McAdam		Concrete	3	\$13,500
MacQueen LHS	Aberdeen	McAdam	Segenhoe		Concrete	4	\$22,500
MacQueen LHS	Aberdeen	Perth	St Heliers		Concrete	3	\$10,800
Segenhoe	Aberdeen	MacQueen	Moray		Concrete	3	\$4,500
Segenhoe	Aberdeen	Graeme	Bedford		Concrete	3	\$9,100
St Andrew	Aberdeen	Campbell	McLeod		Concrete	3	\$12,400
St Andrew	Aberdeen	McLeod	Graeme		Concrete	3	\$19,400
St Andrew	Aberdeen	Segenhoe	MacQueen		Concrete	3	\$9,500
Bettington LHS	Merriwa	Vennacher	Marquet		Concrete	3	\$9,900
Bow	Merriwa	Blaxland	Bettington		Concrete	3	\$9,500
Bow	Merriwa	Bettington	MacKenzie		Concrete	3	\$9,500
Bow	Merriwa	MacKenzie	Cullingral		Concrete	3	\$4,500
Bow	Merriwa	Cullingral	Langley		Concrete	3	\$9,500
Bow	Merriwa	Langley	Hayes		Concrete	3	\$9,500
Brisbane	Merriwa	Gully	Bettington		Concrete	3	\$3,200
MacKenzie	Merriwa	Dutton	Bow		Concrete	3	\$9,500
Marquet	Merriwa	Blaxland	Bettington		Concrete	3	\$9,900
Vennacher	Merriwa	Blaxland	Bettington		Concrete	3	\$9,500
Vennacher	Merriwa	Bettington	MacKenzie		Concrete	3	\$9,500
Vennacher	Merriwa	MacKenzie	Cullingral		Concrete	3	\$4,500
Vennacher	Merriwa	Cullingral	Langley		Concrete	3	\$9,500
Vennacher	Merriwa	Langley	Hayes		Concrete	3	\$10,100
						TOTAL	\$1,772,225.00



Appendix F – Forecast of Asset Ratios to Local Government Benchmarks

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
INFRASTRUCTURE RENEWAL												
Asset Renewals	8,429,864	12,698,348	23,486,798	4,710,000	3,308,000	3,562,000	3,592,000	3,622,000	4,052,000	4,082,000	4,102,000	
Depreciation Expense	4,826,542	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	
INFRASTRUCTURE BACKLOG												
Estimated Cost to bring back to Satisfactory	45,935,542	46,639,263	47,313,813	48,032,187	48,750,511	49,489,437	50,225,947	50,974,013	51,739,161	51,741,892	52,513,351	
Closing Value of Assets	317,323,029	343,849,819	382,733,594	383,774,127	383,159,660	383,350,193	383,570,726	383,976,259	385,256,792	385,286,792	386,742,325	
ASSET MAINTENANCE												
Asset Maintenance Expense	6,008,130	5,143,250	5,408,138	5,486,871	4,725,700	4,872,349	5,022,863	5,177,344	5,335,893	5,665,644	52,336,675	
Required Asset Maintenance	6,025,650	6,587,467	7,343,065	7,542,348	7,719,796	7,911,980	8,107,498	8,308,722	8,526,091	8,526,541	8,749,795	
CAPITAL EXPENDITURE												
Annual Capital Expenditure	14,000,330	31,428,757	43,785,742	5,942,500	4,287,500	5,092,500	5,122,500	5,307,500	6,182,500	6,212,500	6,387,500	
Annual Depreciation Expense	4,826,542	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	4,901,967	
SS7 Data												
Gross Replacement Cost (GRC)	401,710,030	439,164,437	489,537,646	502,823,211	514,653,059	527,465,355	540,499,835	553,914,833	568,406,055	568,436,055	583,319,646	
% Infrastructure Condition 4 and above	10.14%	9.42%	8.57%	8.47%	8.40%	8.32%	8.24%	8.16%	8.07%	8.07%	7.98%	
% Infrastructure Condition 3 and above	35.60%	33.06%	30.09%	29.74%	29.49%	29.21%	28.93%	28.65%	28.34%	28.34%	28.03%	
RATIOS BASED ON 3YR AVERAGE												
	Benchmark											
Infrastructure Renewal	100%	105.64%	167.71%	304.95%	278.09%	214.23%	78.74%	71.14%	73.28%	76.61%	78.27%	80.88%
Infrastructure Backlog	2%	6.13%	10.20%	13.40%	12.79%	12.53%	12.72%	12.91%	13.09%	13.27%	13.31%	13.43%
Asset Maintenance	1.00	1.03	0.95	0.83	0.75	0.69	0.65	0.62	0.62	0.62	0.63	2.01
Capital Expenditure	1.10	1.98	3.54	6.10	5.52	3.67	1.04	0.99	1.06	1.13	1.16	1.23
ACTUAL RATIO MEETING BENCHMARK												
Infrastructure Renewal		✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗
Infrastructure Backlog		✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Asset Maintenance		✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓
Capital Expenditure		✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	✓



Appendix G – Road Infrastructure Assets Activity Risk Register

Risk	Consequence	Likelihood	Risk Rating	Proposed Treatment	Responsibility	Completion Date
Road condition	Major	Likely	High	Future planning improvements can be made by further documented service level risks and utilisation of these in establishing future renewal priorities	Engineering, Strategy and Assets	Ongoing
Road storm and flood damage	Catastrophic	Almost certain	Very High	Seek assistance from other tiers of government, which relies on Natural Disaster declarations	Engineering, Strategy and Assets Operations Services	Ongoing
Transport asset renewals not funded when required	Major	Almost certain	High	High reliance on funding from other tiers of government. Reduction in funding from these sources will lead to a reduction in service level. Sealed roads may revert to gravel roads and gravel roads may become formed earth roads	Engineering, Strategy and Assets Operations Services	Ongoing
Increases in environmental standards through regulation and changing public expectations	Minor	Rare	Low	Upgrade assets to meet new Standards during renewal	Open Space, Recreation and Property	Ongoing
The quality of data on management information systems (Specifically GIS) The failure of Stormwater Quality Improvement Devices	Minor	Possible	Moderate	Ongoing program of updating data through Capital Works Program/ inspections	Engineering, Strategy and Assets	Ongoing
Ongoing changes to weather patterns	Moderate	Possible	Moderate	Forward planning to ensure capacity is adequate	Engineering, Strategy and Assets	Ongoing

Appendix H – Glossary

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. resurfacing or re-sheeting a

material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would

cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost “As New” (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset

consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

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).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, e.g. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, e.g. power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant

ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs.), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

(a) the period over which an asset is expected to be available for use by an entity, or

(b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

*Note: Items shown * modified to use DA instead of CRC*

*Additional glossary items shown ***

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2011	Initial draft	JB/GD	JB	JB
2	February 2013	Update asset inventory and financial data	JB/GD	JB	JB
3	March 2017	Update Assets, Financials & Information	JB/GNS	JB/WP/ST	
4	January 2019	Update Assets, Financials & Information	GNS/AG	JB/WP	
5	May 2020	Update Assets, Financials & Information	GNS/KW	JB/WP	
6	June 2021	Update Assets, Financials & Information	GNS/KW	JB/WP	
7	February 2022	Update Assets, Financials & Information	GNS/KW	JB	



Asset Management Plan

STORMWATER & DRAINAGE

2022

Asset Management Plan – Stormwater & Drainage

Date adopted by Council	27 June 2022
Minute number	SCR06.22
CM Ref	INT-23949/22
Due for review	June 2023
Related documents	Asset Management Policy Asset Management Strategy Asset Management Plans Delivery Program and Operational Plan Community Strategic Plan 2032 Integrated Planning and Reporting requirements
Responsible officer	Manager Strategic Assets
Department/Section	Strategic Assets
Category	Financial & Asset Management
Community Strategic Plan Priority	<p>Maintaining and developing our infrastructure network to meet the ongoing needs of our population.</p> <p>SO 4.1 Provide for replacement, improvement and additional Community and open space infrastructure through investment, best practice and risk management.</p> <p>SO 4.2 Provide inviting public spaces that are clean, green, properly maintained, well designed, encourage active participation, family friendly and accessible to all.</p> <p>SO 4.3 Provide safe and reliable water and sewerage services to meet the demands of current and future generations.</p> <p>SO 4.4 Maintain and upgrade the road network and bridges.</p> <p>SO 4.5 Advocate and improve access to communication services.</p>

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Asset Management Plan – Stormwater & Drainage

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1 EXECUTIVE SUMMARY

1.1 Context

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². The Upper Hunter Local Government Area is home to a diverse mix of businesses such as agriculture, thoroughbred horse studs, retail, light and heavy industry. Council provides stormwater services to residential, commercial and industrial customers in the towns of Aberdeen, Merriwa, Murrurundi, Scone and villages within the shire.

Council owns, operates and maintains stormwater and drainage structures and quality devices. The stormwater and drainage infrastructure assets have a replacement value of \$33,520,533 as at 30 June 2021.

Council plans to operate and maintain its stormwater assets to achieve the following strategic objectives:

- Deliver the required level of service to existing and future customers in the most cost effective way
- Anticipate, plan and prioritise spending on the assets
- Optimise the life of assets at the most economic cost over time (lifecycle approach)
- Undertake a risk based approach to identify operational, maintenance, renewal and capital development needs and apply economic analysis to select the most cost effective work program

The contribution towards achievement of these strategic goals and asset management objectives will be achieved by:

- Stakeholder consultation to establish and confirm service standards.
- A regular program of inspections and monitoring activities to assess asset condition and performance.
- Application of a systematic analysis to prioritise renewals and establish the most cost effective works programs.
- Continuously reviewing and improving the quality of Asset Management practices.

1.2 What does it cost?

The projected expenditure necessary to provide the services covered by this Stormwater Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets.

The total amount of forecasted expenditure for stormwater drainage infrastructure operations, maintenance and capital over the next ten years will be approximately \$9.1 million (as shown in Figure 1) with average annual forecast expenditure of \$913,598 per annum.

Forecasted operational expenditure (OPEX) for the ten year cycle will be approximately \$5.5 million which equates to 60% of the total forecasted expenditure. The Levels of Service (LOS) capital expenditure is for increasing the service level delivered by the assets.

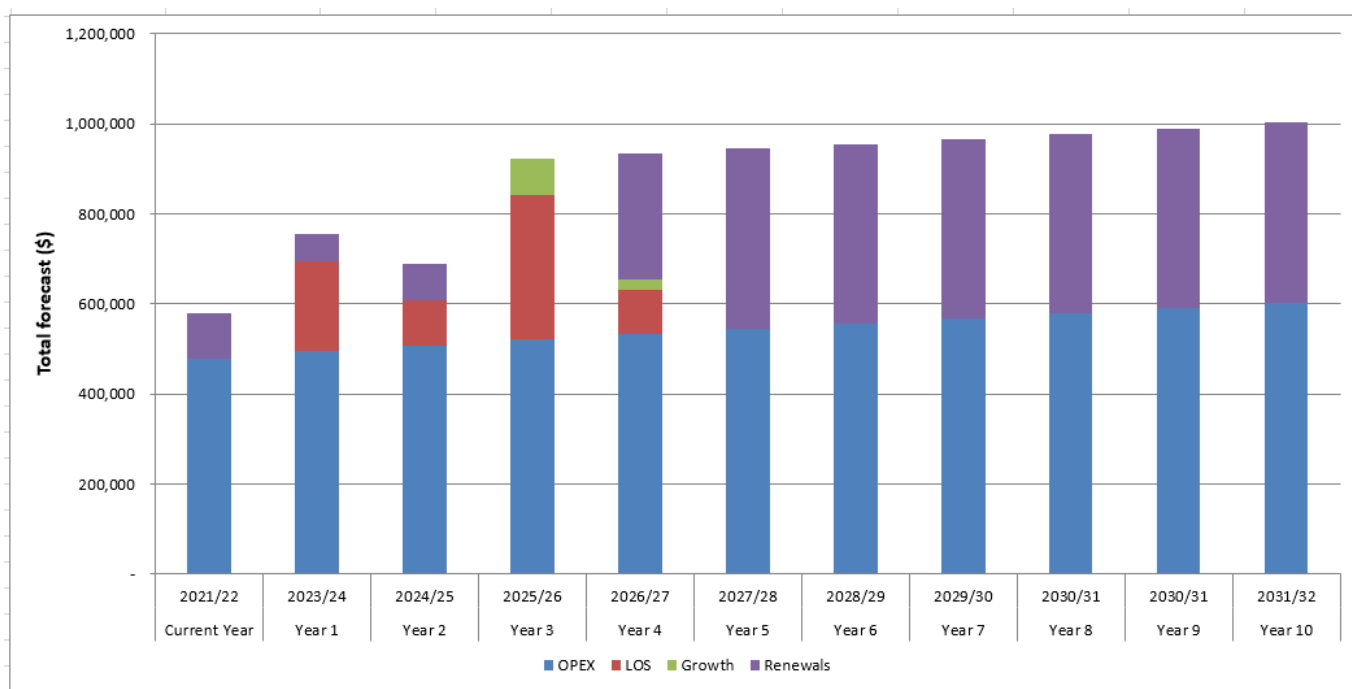


Figure 1: Summary of Stormwater Drainage Total Expenditure Forecast

Note that expenditure forecasts (operational and capital) are based on the revised current year budget 2021/22 and the 2018/2019 to 2022/2023 Delivery Program and Operational Plan (DPOP).

1.3 What we will do?

Council seeks to manage infrastructure in the most cost effective way over the life of the asset. This is done in a number of ways including the following:

- Operation, maintenance, renewal, upgrade and monitoring of Upper Hunter Shire’s stormwater drainage assets to meet the service levels set in this plan
- Inspect the stormwater drainage infrastructure annually to ensure that they are performing and reassess their condition grading
- Plan any works to address the defects found from asset inspections
- Plan stormwater drainage pipe renewals based on failure statistics.
- Renewals planned within the ten year planning period have been identified to ensure that this is an acceptable backlog
- Investigate poor performing assets based on service failure and customer requests to ensure service continuity.
- Maximise community benefits against costs.
- Develop options, costs and priorities for future asset management activities.
- Consult with the community to plan future services to match the community service needs with ability to pay for services.

1.4 Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Poor or incomplete asset management practices including AMP, lifecycle management plans (LCMP) and asset condition assessments.
- Overall asset life and condition is compromised due to maintenance and renewal programs not well targeted or limited in scope.
- Financial implications with inaccurate asset valuation and long term planning including renewal forecasts.

We will endeavour to manage these risks by:

- Complete the actions identified in the Stormwater and Drainage AMP including lifecycle management plans (LCMP); complete the resourcing levels for storm water drainage asset management and complete the asset condition survey.
- Complete the full revision of the Stormwater Drainage AMP; complete the asset condition assessment program.
- Implement the asset management improvement program; continue with regular inspections and reporting on assets; start proactively analysing and reporting on data availability; start building core asset management capability; complete asset condition survey.

1.5 The Next Steps

The actions resulting from the Stormwater and Drainage AMP are:

- Complete the comprehensive condition survey of all stormwater drainage assets.
- Review the currently used asset useful lives prior to the next major asset revaluation.
- Implement adequate resourcing and capability for updating the stormwater drainage asset inventory, collection of asset repair data, and updating asset condition assessment records.
- Revise and improve the effectiveness of the current renewal programs.
- Start recording work history to assets in CONFIRM to improve renewal planning.
- Complete a formal AM Maturity Assessment of the stormwater drainage assets.
- Improve the delineation between planned, cyclic and reactive maintenance.
- Develop data collection methods to ensure consistency and ongoing improvement of condition data collection.

1.6 Questions you may have

What is an asset?

An asset is an item of property owned by the Council regarded as having value. Council's assets range from roads and footpaths to buildings, playgrounds, stormwater infrastructure and street furniture.

What is an asset management plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

What are the objectives of asset management?

The basic premise of infrastructure asset management is to intervene at strategic points in an asset's life cycle to extend the expected service life, and thereby maintain its performance. Generally speaking, the cost of

maintaining an asset decreases with planned maintenance rather than unplanned maintenance, however, excessive planned maintenance increases costs. An objective of asset management is to strategically time infrastructure renewals before unplanned maintenance costs become excessive, but not so soon that assets are renewed before it is really needed.

Council's goal in managing infrastructure assets is to meet the required levels of service in the most cost effective manner for present and future customers. The key elements of asset management are:

- Taking a life cycle approach.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Understanding and meeting the demands of growth through demand management and infrastructure investment.
- Managing risks associated with asset failures.
- Sustainable use of physical resources, and
- Continuous improvement in asset management practices.

How do we determine when renewals are required?

Renewals are determined by considering the ability of an asset to meet an agreed standard of service. This is done by regularly reviewing the condition of assets and using this information as a basis to prioritise renewals.

How do we determine our levels of service?

Our levels of service have been developed based on legislative requirements, customer research and expectations, and strategic goals.

Why does Council need an Asset Management Plan?

Under section 122 of the Local Government Act, the Upper Hunter Shire Council has a legislative requirement to develop Asset Management Plans. In addition to the legislative requirement, there is a need for the Council to ensure effective investment in assets which need it most by having a planned, systematic approach to Asset Management.

How does Council include community feedback into the Plan?

We will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how we may change or reduce the mix of services we provide to ensure that the appropriate level of service can be provided to the community at the lowest possible cost.

Council includes community feedback into Asset Management Plans in a number of ways;

- Through information provided via our annual Community Survey
- Through review of common customer requests and complaints in our Customer Request Management (CRM) system
- Through a formal community engagement process where the community is invited to provide feedback on draft Asset Management Plans, which is then incorporated into the final documents

2 INTEGRATED PLANNING AND REPORTING FRAMEWORK

The Local Government Integrated Planning and Reporting (IP&R) Framework aims to ensure a more sustainable Local Government sector. The Local Government Act 1993 requires Council to work with the

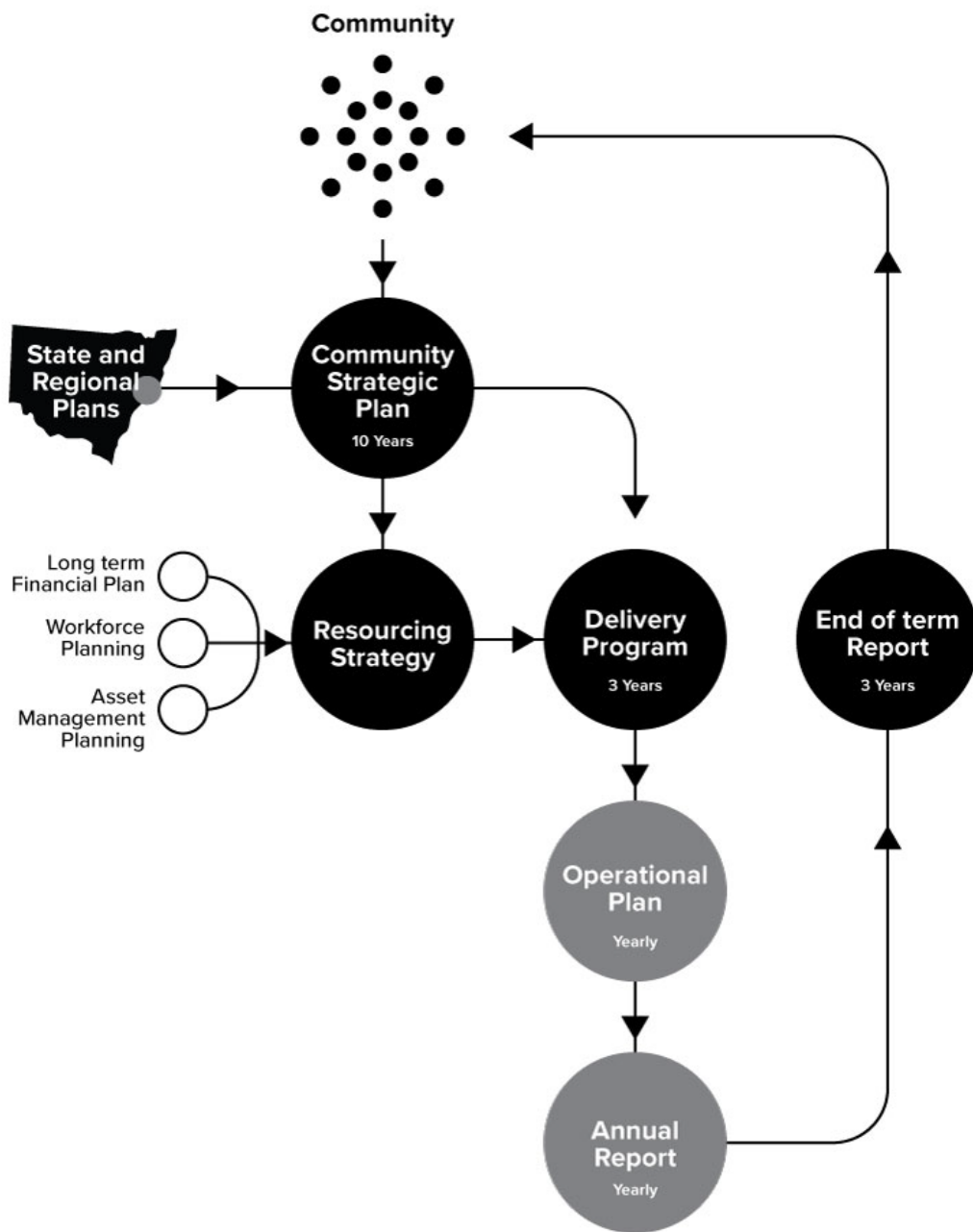
community to review the Community Strategic Plan and other documents within the Integrated Planning and Reporting Framework after the commencement of each four-year elected Council term.

Councils need to take a long term view and consider social, economic and environmental aspects and the needs of the current and future generations when making decisions. This underpins the Integrated, Planning and Reporting Framework. The importance of Civic Leadership and accountability and transparency in decision making should also underpin the Plan.

All NSW Councils are required to develop a Community Strategic Plan along with a Delivery Program (4 years) and Operational Plan (1 year). The CSP 2032 and its strategic objectives provide a foundation for our Delivery Program and Operational Plan. The Delivery Program and Operational Plan detail how each service addresses the CSP 2032 objectives, ongoing activities, priority projects and the strategies supporting this work.

These documents are informed by a Resourcing Strategy that is made up of a Long Term Financial Plan, Asset Management Plans and Workforce Management Plan. In order to achieve the integration envisaged by the IP&R Framework, there is an alignment between the CSP 2032, Delivery Program, Operational Plan and the other key documents. This is identified on the Upper Hunter Shire Integrated Planning and Reporting Framework.

Asset Management Plan – Stormwater & Drainage



3 INTRODUCTION

3.1 Background

About This Plan

The Stormwater and Drainage AMP is to demonstrate responsible 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 Stormwater and Drainage AMP is to be read with Council’s Asset Management Policy and Strategy and the following associated planning documents:

- Revised current year budget 2021/2022
- Delivery Program 2018/2019-2022/23 and Operational Plan 2022/2023
- Community Strategic Plan 2032
- Infrastructure Asset Revaluation Supporting Documentation
- Council files on Stormwater Drainage assets
- Upper Hunter Shire Council Resident Satisfaction Survey Results

Scope of Services

Upper Hunter Shire is located in the Hunter Region of NSW, approximately 250km north of Sydney. The Shire is predominantly rural and encompasses 8,100km². Council supplies stormwater drainage for residential, commercial and industrial customers in the towns of Aberdeen, Merriwa, Murrurundi, Scone and the villages in the local government area as shown in Figure 2.



Figure 2: Map of Upper Hunter Shire Towns

Council’s stormwater drainage assets comprise stormwater structures (head walls, junction boxes, side entry pits, underground culverts, stormwater pipes) and stormwater quality devices (weirs, detention basins, gross pollutant traps, holding basins, lined watercourses, rainwater tanks, road culverts and trash rack baskets). Refer to sections 5 and 8 for stormwater drainage asset details including asset valuation.

Our Stakeholders

Key stakeholders interested in stormwater drainage are shown in Table 1.

Table 1: Key Stakeholders in Stormwater Drainage

Key Stakeholder	Area of Interest and Role in AMP
Councillors	Represent needs of community/stakeholders
	Allocate resources to meet the organisation’s objectives in providing services while managing risks
	Ensure organisation is financially sustainable
	Set policy
General Manager	Provide leadership and community engagement
Senior Management Group	Development of overall strategy
Director Infrastructure Services	Oversee development of strategies and liaison with all relevant parties
Stormwater Program Area	Owner of this plan and responsible for assets covered by this plan
Strategic Assets Program Area	Owner of Asset Management Policies and Strategies
Local residents	Users of Council’s Assets and Services
Local businesses	As User of Council Assets and the future of new commercial and community growth
Developers	Users of Council’s infrastructure and services
	Build infrastructure and hand over to Council ownership
Environmental groups	Interested in improvement to the natural environment and efficiency initiatives
Council’s roads department	Interested in the coordination of the capital programs in the road corridor

3.2 Goals and Objectives of Asset Management

Upper Hunter Shire Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment

Asset Management Plan – Stormwater & Drainage

- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failure
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed
- Continuous improvement in asset management practices.

This Stormwater and Drainage AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values contained within Council’s:

- Asset Management Policy
- Asset Management Strategy
- Community Strategic Plan 2032.

Council’s vision is:

“A quality rural lifestyle in a vibrant, caring and sustainable community”

Our commitment to the Community

- We will deliver high quality, innovative, consistent and responsive services to the community.
- We respect the rights of everyone to be treated fairly.
- We will keep our community informed about Council services and financial position.
- We will continually strive to improve our services to the community and encourage community engagement.
- We will deliver increased effort in the protection of the environment.

Council’s relevant community strategic objectives (as stated in the Community Strategic Plan 2032) and how these are addressed in this AMP are outlined in Table 2.

Table 2: Organisation objectives and how these are addressed in this Plan

COMMUNITY PRIORITY	STRATEGIC OBJECTIVES	HOW OBJECTIVES AND INITIATIVES ARE ADDRESSED IN AMP
Ensure the ongoing protection of our environment and natural resources	Advocate for, facilitate and support programs that protect and sustain our diverse environment for future generations	By sustainably managing the stormwater outlet flows into natural resources and compliance with consent conditions.
Maintain and develop our infrastructure network to meet the ongoing needs of our population	Provide safe and reliable water and sewerage services to meet the demands of current and future generations	By providing for the cost effective development, upgrade, renewal and maintenance of stormwater drainage assets in the Shire and by ensuring that they are effectively managed to deliver the required services
		By proactively surveying the asset condition of our stormwater network we will understand and make long term plans for a sustainable infrastructure

		By measuring the achievement of our service levels to our communities to ensure adequate stormwater drainage provision
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4 LEVELS OF SERVICE

Levels of service relate to outcomes the customer receives in terms of quality, quantity, responsiveness and performance as it is provided by the asset utilised by Council to provide the service. To achieve and maintain acceptable levels of service for Council’s stormwater system, a system of setting, recording and reviewing service levels achieved with the assistance of Community input is required. Future iterations of this plan will involve further and more detailed community consultation in this regard.

The levels of service have been reviewed as part of the AMP development. They support Council’s strategic goals and are based on user expectations, statutory and state standard requirements.

4.1 Community Consultation

The Stormwater drainage AMP is prepared to facilitate community consultation initially through feedback on public display of draft AMPs prior to adoption by the Council.

Future revisions of the Stormwater and Drainage AMP will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community’s ability and willingness to pay for the service.

4.2 Customer Research and Expectations

In a broader attempt to assess the priorities and service expectations of our wider community, across all areas of performance, Council has commissioned detailed surveys through the company: Micromex Research Consultants. They undertook extensive telephone surveys in 2009, 2013 and 2015.

This survey concentrated on establishing the community’s assessment of the importance of, and their satisfaction with, a number of services (52 in total) including stormwater drainage. A scale of 1 to 5 was used in all rating questions where 1 was the lowest importance or satisfaction, and 5 was the highest importance or satisfaction.

Separately, comprehensive community surveys were undertaken in 2010, 2013 and 2015 using a mix of phone and face to face surveys. The results for stormwater drainage combined are summarised in Table 3 and show that the performance gap is reducing.

Table 3: Survey results for Stormwater drainage

Year	Importance	Satisfaction	Performance Gap
2010	4.17	3.06	1.11
2013	4.32	3.44	0.88
2015	4.29	3.28	1.01

Source: Community Research, Micromex Research (October 2015)

4.3 Strategic and Corporate Goals

The Stormwater Drainage AMP is prepared under the direction of Council’s Vision, Charter and Corporate Values. It is intended to expand on the strategies defined in Council’s Publication “Community Strategic Plan 2032”. Table 4 shows the areas of focus and key objectives.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AMP. Management of infrastructure risks is covered in Section 5.2.

Table 4: Stormwater Drainage Business Objectives

Focus Areas	Objectives
Customer Service	Meet levels of service to which customers have agreed and can afford
	Establish affordable service areas and solutions
	informed and be responsive to its needs
	Community consulted and considered on all major expenditure decisions
Financial Management	Evaluate options to achieve capital and maintenance programs with affordable rates and relatively low levels of reserves
	Set up the sewer fund as an independent business
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area
Asset Management	Ensure reliable, secure and cost effective service using latest technology
	Ensure the system provides levels of service agreed
	Provide a Capital Works Program which supplies system needs
Human Resources	Maintain a capable, motivated and skilled workforce
Environment	Manage the system to prevent adverse environmental impacts
	Promote and assist establishment of industry and developers in the Upper Hunter Shire Council area.

4.4 Legislative Requirements

Council is required to adhere to many Federal and State Government legislative regulations and requirements as shown in Table 5.

Table 5: Legislative Requirements

Legislation	Requirement
Local Government Act, 1993 and Local Government (General) Regulation 2005	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.

Legislation	Requirement
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
OLG Integrated Planning NSW	Key requirement is to integrated community plans with operational and delivery plans.
Protection of Environment Operations (POEO) Act, 1997	Under the POEO Act, it is an offence for the operator of any facility to cause pollution, including odour.
Waste Avoidance and Recovery (WARR) Act 2001	Establishes the need to avoid/minimise waste, increase resource use efficiency/reduce natural resource consumption, and minimise environmental impact through ecologically sustainable development and sustainable waste management systems.
Environmental and Penalties Act 1989	Details Council’s environmental responsibilities and the penalties to be applied if these are not met
WHS Act and Regulations	Council must ensure a safe workplace for all its employees and the public

4.5 Current Levels of Service

We have defined service levels in two terms.

Community Levels of Service

This measures how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the AMP are:

- Quality Function How good is the service?
- Capacity Does it meet users’ needs?
- Utilisation Is the service over or under used?

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services to meet legislative requirements and environmental outcomes.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. clearing stormwater blockages, repair damaged reticulation pipe).
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. pipeline replacement and repairs to service lines)
- Upgrade – the activities to provide a higher level of service (e.g. replacing a pipeline with a larger size, or a new service that did not exist previously).

The stormwater service levels are summarised in Table 6. The full levels of service (LOS) table including performance measures and targets are detailed in Section 9.2.

Table 6: Stormwater Customer Level of Service

Key Service Attribute	Customer LOS
Safety	To reduce flooding hazards and flow velocities around walkways
Quality - reliability	To provide well maintained drainage network rated as in satisfactory condition at end of any period
Responsiveness	To provide prompt responses for service
Sustainable -Environmental performance	To provide a network that meets customer requirements
Sustainable -Cost Effectiveness	To maintain high levels of proactive maintenance for pipe and pit cleaning

4.6 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The stormwater asset management planning process includes the development of scenarios to assist in planning future levels of service that are financially sustainable, and provide what the community wants at an affordable price.

The rollout of stormwater drainage to a number of new areas is considered during a review of councils Strategic Business Plan, which includes detailed and long term financial modelling of options for service extensions.

5 FUTURE DEMAND

5.1 The Shire’s Growth

The total population of Upper Hunter Shire as reported by the 2016 Census was 14,350. Population projections for the Shire, as published by the NSW Department of Planning and Infrastructure, are shown in Table 7: Population Projections for Upper Hunter Shire reflecting an average annual growth rate of -0.50 % pa.

Table 7: Population Projections for Upper Hunter Shire

Population	2016 Census	2021	2026	2031	2036	2041	Total Change	Annual % Change
UHSC	14,350	14,200	13,950	13,600	13,200	12,700	-1,650	-0.50%

Source: Population Estimates & Projections for Local Areas NSW; NSW Planning & Infrastructure, 2019

5.2 Demand Factors

The key factors that directly impact the demand for stormwater infrastructure are:

- population growth

Asset Management Plan – Stormwater & Drainage

- demographic changes
- residential development
- extension of services to towns and villages.

Demand factor trends and impacts on service delivery are summarised in Table 8.

Table 8: Demand Factors

Demand factor	Present position	Projection	Impact on services
Population	Upper Hunter Shire Council's population in 2016 was 14,350	Upper Hunter Shire Council's population is predicted to decline over the next 10 years.	Negative growth rate will have a small decrease in demand
Demographics	28.6% of the Shire's population is aged between 15 – 39 years. This is lower than the national average of 35.5% and can be attributed to fewer job opportunities and lack of higher educational institutions in the area	The percentage of the population in this age group is expected to remain static or increase slightly.	Insignificant
Housing occupancy ratios	There has been a long term trend to lower ratios over 20 plus years. Currently about 2.7 people per household	Whilst this has had a marked effect on housing demand in the past, it has stabilised somewhat with the trend towards young people staying at home much longer than in the past	Insignificant
Residential development	Low growth rate reflects demand for residential development	Future growth rate is likely due to the proximity to the coal mining industry	Small increase in demand
Climate Change	Awareness that climate change is occurring and its impact on stormwater	Decreasing water supply and increasing demand. Onsite and catchment stormwater reuse and change to parks and gardens plantings due to water restrictions	Stormwater capture and reuse infrastructure needed
Climate Change	Extremes increasing	Higher intensity rainfalls in storm events	Significant spending required to manage greater flows, and pollutant treatment measures
Catchment management	Direct stormwater discharge into river environment with some pollution control measures and limited stormwater reuse	Regulated controls on quality of stormwater discharging into river environment and stormwater reuse	Increase in infrastructure to control pollutants, capture and reuse stormwater

5.3 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 9.

Table 9: Changes to Technology

Technology Change	Effect on Service Delivery
Changes in construction techniques, available materials and improvements to plant and equipment will evolve.	These changes will be assessed on merit and applied where efficiencies can be achieved in construction and maintenance practices.
Improvement to pollutant control devices.	Higher level of pollution capture and treatment of stormwater.
Asset data capture by video inspection and the transportation of this information onto Council’s GIS	Spatial location and condition of assets able to be verified from GIS reducing the need for reactive inspections
Further development of urban stormwater sensitive devices and techniques.	Reduce stormwater run-off and increase reuse.

5.4 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 10. Further opportunities for demand management will be developed in future revisions of this AMP.

Table 10: Current Stormwater & Drainage Demand Management Plan

Service Activity	Demand Management Plan
Stormwater maintenance	Routine inspections and repairs carried out in accordance with best practice principals.
Capital works	Schedule long term capital works plan
Development	Identify areas that may be subject to development
Education campaigns	Help modify community behaviour through education campaigns.
Pipes and pits	WSUD – more overland flow, green swales, detention basins, less impervious areas on new developments
	Re-lining old pipes with poly inserts to prolong life
	Greater cleaning and flushing of the underground system to ensure full capacity
	Clearing and widening of natural waterways to increase capacity
	More use of GPTs on private property

5.5 Asset Programs to meet Demand

The new assets required to meet growth will either be acquired free of cost from land developments (in most cases) or funded by Section 94 contribution plans and constructed by the Council or its nominated contractor.

The cumulative value of new contributed and constructed asset values have not been considered in any detail in this plan, as the historical and expected growth rates for Council have not been particularly high, and would not be considered to have any significant impact in the 10-year horizon of this plan.

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs will be more accurately identified, and options considered, as part of the revision process. In particular, there will be full financial provision for maintenance and renewal costs of these new assets in the revised financial plan. This information will be incorporated in future versions of the Stormwater drainage AMP.

5.6 Growth and Demand Assumptions

The key growth and demand assumptions are as follows:

- Population projections are based on Population Estimates and Projections for Local Areas NSW; NSW Planning and Infrastructure, 2019.
- Projections have been based on historic census data and it has been assumed that the trends that have been observed will continue.

6 LIFECYCLE MANAGEMENT PLAN

Overview

The lifecycle management plan details how Council plans to manage and operate the stormwater assets at the agreed levels of service defined in Section 3 while optimising life cycle costs. The stormwater assets and facilities are maintained and developed in a way that is fit for purpose and sustainable over time and consistent across the Shire.

Council’s key asset management principle is meeting the service levels and managing risk while minimising whole-of-life costs. It is important that asset lifecycle costs are considered in decision making as they are typically several times greater than the initial development costs.

The Asset Lifecycle

Figure 3 below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.



Figure 3: Asset Lifecycle

6.1 Background Data

6.1.1 Physical parameters

The summary of the stormwater asset classes covered by this AMP are shown in Table 11. The most recent information available for the quantities and total values are detailed in Section 8.

Table 11: Stormwater asset classes

STORMWATER ASSET CLASS	Quantity	Units
Stormwater drainage pits	1,343	Item
Pipes	44.59	km
Box Culverts	2.36	km
Headwalls	441	Item
Open Channel	2.11	Km
Basin	0.34	Km
Causeways	0.23	Km
Dish Drain	1.35	Km

Gutter Bridge	4	Item
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The age profile of nearly all of the stormwater construction dates are from late 1950’s to present, which given the long life of stormwater assets would indicate they are relatively ‘new’. The largest spikes of construction appear in the early to mid-1970’s and 1980’s, which would correlate to the movement towards control of stormwater flows and underground piped systems based on public perception and demand.

Based on the age profile it could be expected that there will be minimal renewal expenditure required over the modelling period, which would correlate with current practice and observation that the assets are in good to average condition.

6.1.2 Asset Capacity and Performance

Network performance

The organisation’s services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in the following Table 12.

Table 12 - Known Service Performance Deficiencies

Location	Service Deficiency
Stormwater Drainage Network	Under capacity pipe and pit drainage, lack of drainage system and property flooding
Stormwater Pollution Control Measure	Not all stormwater outlets have pollution control measures
Stormwater Reuse	Limited infrastructure installed for stormwater reuse.

The service deficiencies for stormwater drainage network were identified from reported flooding locations. Stormwater pollution and reuse are service deficiencies based on future quality requirements and demands.

6.1.3 Asset condition

Condition surveys

Asset condition is an important determinant for Council's asset renewal planning. Condition is monitored through failure statistics, selected dig up and inspect (rare) and inspection by CCTV of the pipe and pit infrastructure.

The frequency of condition assessments will depend on a number of factors including the age, life, risk and criticality of the asset. In taking these factors into account and the current revaluation cycle for assets Council has determined a condition inspection frequency for each asset class. The following inspection frequency has been adopted for each asset class for future condition surveys:

- Stormwater drainage – visual inspection of 20% of the network are carried out annually.
- CCTV - coverage of 10% of the network is carried out biannually.

At present the condition of an asset is gauged by a visual rating system that assigns a condition rating on the asset based on how it appears to be functioning in providing its service to the community.

The visual condition assessments are measured using a 1-5 rating system as shown in Table 13.

Table 13: Visual Condition Assessment

Rating Scale	Condition Description
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Asset Management Plan – Stormwater & Drainage

1	Excellent - little to no maintenance required (planned maintenance)
2	Very good - minor and planned maintenance required
3	Good – significant maintenance required
4	Average – Significant renewal/upgrade required
5	Poor - unserviceable

Given the long life of stormwater assets and the difficulties in establishing their condition it is recognised that this process is largely subjective.

Condition assessment

A desktop assessment of asset condition has been supplemented with reviews of CCTV and inspection reports of the inspected network. This information has been used for the purposes of developing this AMP along with the following methods:

- Age and remaining life (based on design life)
- Construction plans not yet updated in MapInfo
- 2016 survey information for the complex assets
- Council knowledge on a township and asset category basis.

This high level assessment of asset condition is summarised in Table 14. Note that the percentages are based on replacement costs.

Table 14: Assessed Stormwater Drainage asset condition summary

STORMWATER DRAINAGE ASSET CLASS	ASSET CONDITION GRADE				
	1	2	3	4	5
Drainage Pits	61.0%	28.0%	9.0%	1.0%	1.0%
Pipes	53.0%	26.0%	20.0%	0.0%	1.0%
Box Culverts	30.0%	33.0%	23.0%	11.0%	3.0%
Headwalls	35.0%	24.0%	37.0%	2.0%	2.0%
Open Channel	17.0%	71.0%	11.0%	0.0%	1.0%
Basin	15.0%	75.0%	10.0%	0.0%	0.0%
Causeways	0.0%	0.0%	100.0%	0.0%	0.0%
Dish Drain	50.0%	40.0%	8.0%	0.0%	2.0%
Gutter Bridge	0.0%	0.0%	100.0%	0.0%	0.0%

6.1.4 Asset valuations

The value of assets as at 30 June 2021 covered by this asset management plan is summarised below. Assets are valued at Brownfield rates with the unit rates for each asset type based on recent similar construction projects.

Gross Current Replacement Cost	\$33,520,533
Accumulated Depreciation	\$ 8,967,811
Written Down Value	\$24,552,722

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Earthworks Value

\$ 1,940,606

The assets recorded in the asset register are on a valuation basis with any additions constructed by Council for new and/or renewed assets, since this valuation, recorded at cost or for any assets received by Council on an “in-kind” basis from property developer’s (i.e. free of cost to Council) valued using industry data to estimate the cost of their construction. It also noted that where applicable, adjustments are made to the asset register for the value of any corresponding redundant assets that have been renewed.

The write-down of assets are based on the useful life of the asset class within their asset lifecycle. This predominantly entails the use of a consumption based curve which shows an increase in the deterioration of the asset in the later part of its lifecycle as depicted in figure 4.

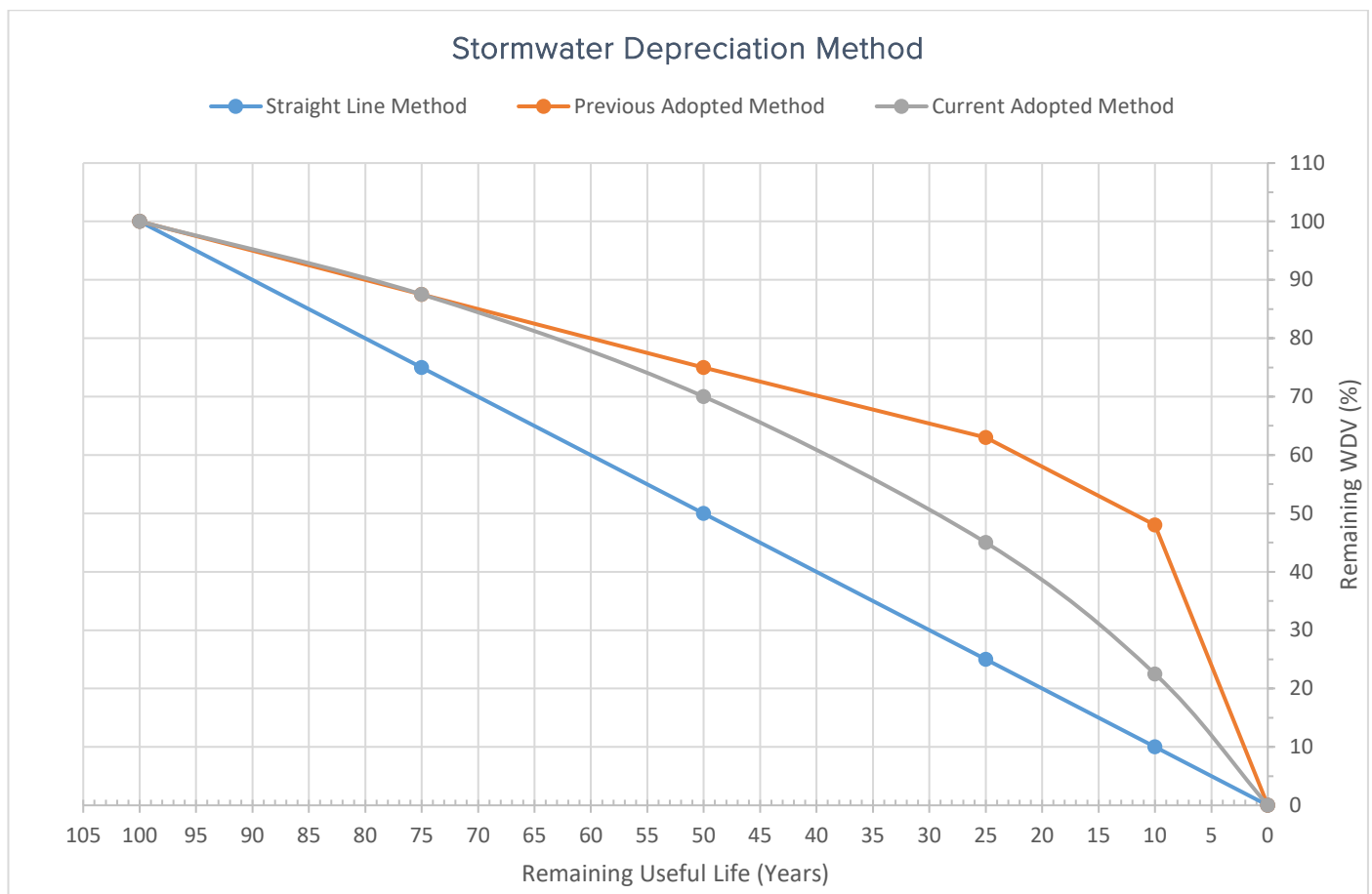


Figure 4 – Stormwater Drainage asset write-down methodology

Asset revaluations are required to be completed by Council’s on a 5-year cycle (at a minimum) in accordance with the “Local Government Code of Accounting Practice and Financial Reporting”. This revaluation considers the suitability of design, useful life and condition assessment of the asset components that are being revalued. It also uses industry specific data to estimate the current replacement cost of the assets held.

Useful lives were last reviewed in 2019/20 as part of the revaluation process with the assets to be reviewed again in 2024/25 as per the revaluation cycle set by the Office of Local Government.

Key assumptions made in preparing the valuations were:

- Industry standard design lives are used for all asset classes

- NSW Reference rates used for most assets replacement cost estimate.

There has been no major variation to the revaluation processes since the last Council adopted Asset Management Plan other than the change in methodology for asset write-down from a straight line method to consumption usage method which provide a more realistic approach for the deterioration of the asset.

6.2 Infrastructure Risk Management Plan

The objective of the risk management process with regards to stormwater assets is to ensure that:

- All significant operational and organisational risks are understood and identified.
- The highest risks that need to be addressed in the short to medium term are identified.
- Strategies and treatments to address risks are identified and applied.

An assessment of risks associated with service delivery from infrastructure assets has identified the most critical risks to Council. The risk assessment process identifies and assesses risks, develops a risk rating and develops a risk treatment plan for non-acceptable risks.

The key risk management criteria relating to Council's stormwater assets include:

- Public health and safety
- Service provision
- Environmental and legal compliance
- Security, theft and vandalism
- Business interruption
- Financial risk (escalating costs in deterioration)
- Asset damage through storms, flooding, water damage or events such as accidents.

Risk identification for stormwater assets can be identified from a number of resources such as:

- Routine inspections
- Reports and complaints from general public
- Information obtained from incidents
- Advice from professional bodies
- Past experience.

Once risks have been assessed and rated, the most significant risks (those rated as high or extreme) are isolated for treatment/control. Those identified as moderate or low will continue to be monitored and reviewed if circumstances change.

Options to treat risk posed by stormwater assets include (but not limited to):

- risk elimination.
- reduction in the cause or likelihood of the event occurring.
- reduction in the consequence or severity of the event if it were to occur.
- increasing the maintenance regime.
- initiating council improvements.
- changing operating processes and procedures.
- sharing the risk through insurance or contracts.
- doing nothing and accepting the risk.

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Asset risks have been identified for the stormwater drainage activity using the NAMS risk management framework including the likelihood and consequence tables. The full activity risk register is detailed in Appendix E.

Table 15 shows the very high (VH), high (H) and medium (M) risks identified (top 3 only shown), the current controls and additional controls through mitigation strategies which will be implemented to result in the mitigated risk rating.

Table 15 – Critical Risks and Treatment Plan

Asset at Risk	What can happen	Risk Rating	Risk treatment plan
Assets within the floodplain areas	Damage to properties from flooding caused by significant storm events	VH	Continue to apply planning policy prohibiting construction within 100yr floodplain
			Identify areas at risk of 100yr flooding and proposed remediation options.
Inlet pits, Pipes	Blockages in pipes or pits leading to surcharging of system and flooding upstream	H	Proactive maintenance/cleaning program. CCTV of pipes and culverts for obstructions.
Capacity issues	Pipes and culverts with inadequate hydraulic capacity	H	Identify areas at flood risk. Prepare preliminary designs and costing of drainage network upgrade

6.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services at the agreed service levels such as responding to service faults and locating blocked pipes.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

6.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

- Reactive maintenance is unplanned repair work carried out in response to service requests, risk assessment priorities and management/supervisory directions. Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement, and risk management procedures.
- Planned maintenance is repair work that is identified and managed through a maintenance program. Activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle (including replacement of trash racks, repainting pit identification inlets etc.). This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 16.

Table 16: Maintenance Expenditure Trends

Maintenance Expenditure	
Planned and Specific	Unplanned
50/60%	40/50%

Planned/cyclic maintenance work is between 50 to 60% of total maintenance expenditure depending on the frequency and intensity of storm events which occur during the year. It is Council’s goal to increase this amount progressively and reduce the amount of reactive maintenance, which should then provide operational cost savings, and maximised asset performance.

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

6.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include: -

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Maintain and review on an annual basis a current infrastructure risk register for assets. Present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

6.3.3 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.

A high level criticality assessment was completed in 2015 for Council’s infrastructural asset groups including stormwater drainage. Different stormwater drainage asset elements were assessed as high, medium or low criticality rating and are detailed in Table 17. The next step is to identify and rank the critical assets using this methodology across the asset inventory.

Table 17: Critical Stormwater Drainage Assets

	High	Medium	Low

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Size	Box culvert or open channel	1200mm - 600mm diameter	<= 525 mm diameter
Flooding (sub catchment)	<1:5 recurrent interval storm capacity	<1:20 recurrent interval storm capacity	<1:100 recurrent interval storm capacity
Properties impacted by flooding	Internal property flooding	External property flooding	
Outlet Structure			Yes

6.3.4 Standards and Specifications

Maintenance work is carried out by council staff in accordance with the Council standard drawings.

6.3.5 Future Maintenance Expenses

Future maintenance costs are forecast to trend in line with the value of the asset stock, plus an allowance for increase in levels of service over the planning period. Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others that are donated to Council.

6.4 Renewal/Replacement Plan

Renewal 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Renewal will be undertaken using 'low cost' renewal methods where practical. The aim of 'low cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement costs.

6.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the condition survey. The estimated service life of stormwater pipes is between 80-100 years. Based on the age profile from the asset register the remaining life of the 1960's portion of the drainage network is estimated to be a greater than 40 years. CCTV assessment will examine the condition of the pipe network and determine the performance of the drainage network and renewal requirements. A renewal plan will be prepared on completion of CCTV assessment and included in future Asset Management Plans.

The decision criteria for major stormwater renewal includes, in descending importance:

- In combination with other works integrated with the drainage location
- Property damage reduction
- Flood frequency reduction
- Minor flooding
- Maintenance hot spots.

6.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner

- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery ‘deficiency’, present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
 - evaluate the options against evaluation criteria adopted by Council
 - select the best option to be included in capital renewal programs
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

6.4.3 Renewal standards

Renewal work is always carried out to current standards and capacity unless a reduced capacity can be justified.

6.4.4 Summary of future renewal expenditure

Limited renewal projects are proposed in this plan. On completion of further CCTV assessment this situation will be reviewed and the plan updated accordingly. From the outputs of the asset age profile it was expected to have little to no renewal expenditure in the short term due to the low asset ages. Given the age profile it could be expected that if the modelling was considered over a 50-year period there would be significant renewal expenditure required towards the end of that period.

6.4.5 Impact of Deferring Renewal Works

Renewal works identified in terms of renewal strategies may be deferred if the cost (or aggregate cost) is beyond the current financial ability to fund it. This can occur when there are short term renewal profile peaks, or higher priority works are required on other infrastructure asset groups.

When renewal works are deferred, the impact of the deferral on the assets ability to still provide the required level of service will be assessed. Although the deferral of some renewal works may not impact significantly on the short-term operation of the assets, repeated deferral will create a liability (backlog) in the longer term.

6.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

6.5.1 Selection criteria

New assets and upgrade/expansion of the existing stormwater assets are identified from the following:

- proposals identified by strategic plans or partnerships with other organisation;
- urban growth – increased development density and potential flooding;
- known property and street flooding locations;
- known drainage pipe and pit hydraulic deficiencies where the capacity is below 1 in 5 ARI;
- high level of pollutant locations (i.e. outlets into waterways);
- potential locations for stormwater storage and reuse;
- poor condition, under capacity pipe/pit network locations.

In preparing future works programs to upgrade/expand the stormwater network consideration is given to the following:

- extent of property and street flooding for existing and future developments including potential damage and hazards;
- capacity and condition of the existing stormwater system;
- strategic locations to improve the quality and reuse of stormwater.

6.6 Disposal Plan

Disposal of drainage assets are not itemised, as they are included in the renewal costs. Pit and large pipe disposal are offset by reduced excavation costs, and small pipe (i.e. 300mm diameter range) disposal costs are offset in part by occasional salvage and re-use.

The existing excavation is typically either incorporated into the new pavement or removed as part of the excavation for new construction.

7 FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of the Stormwater Drainage AMP. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Note that expenditure forecasts (operational and capital) are based on the revised current year budget 2021/22 and the 2018/19 to 2022/23 Delivery and Operational Plan (DPOP).

The improvements proposed for condition monitoring and establishing more accurate useful lives for the stormwater system will be an input into that process also.

7.1 Financial Projections

7.1.1 Financial Summary Overview

The total amount of forecasted expenditure for stormwater drainage operations, maintenance and capital over the next ten years will be approximately \$9.1 million (as shown in Figure 5 and Table 18) with average annual forecast expenditure of \$913,598 per annum.

This expenditure is divided into two main categories, being:

- Capital Expenditure (CAPEX), which is approximately \$3.6 million or 40% of total expenditure, and Operational Expenditure (OPEX), which is approximately \$5.5 million or 60% of total expenditure.

The CAPEX is further separated into three main subcategories being:

- Level of Service (LOS); which increases the service level delivered by the assets. This accounts for approximately \$716,000 or 19.67% of total capital expenditure.
- Renewal; which replaces the asset as new. This equates to approximately \$2.8 million or 77.47% of total capital expenditure.
- Growth; refer to the expansion of the existing asset network. This accounts for approximately \$104,000 or 12.86% of total capital expenditure.

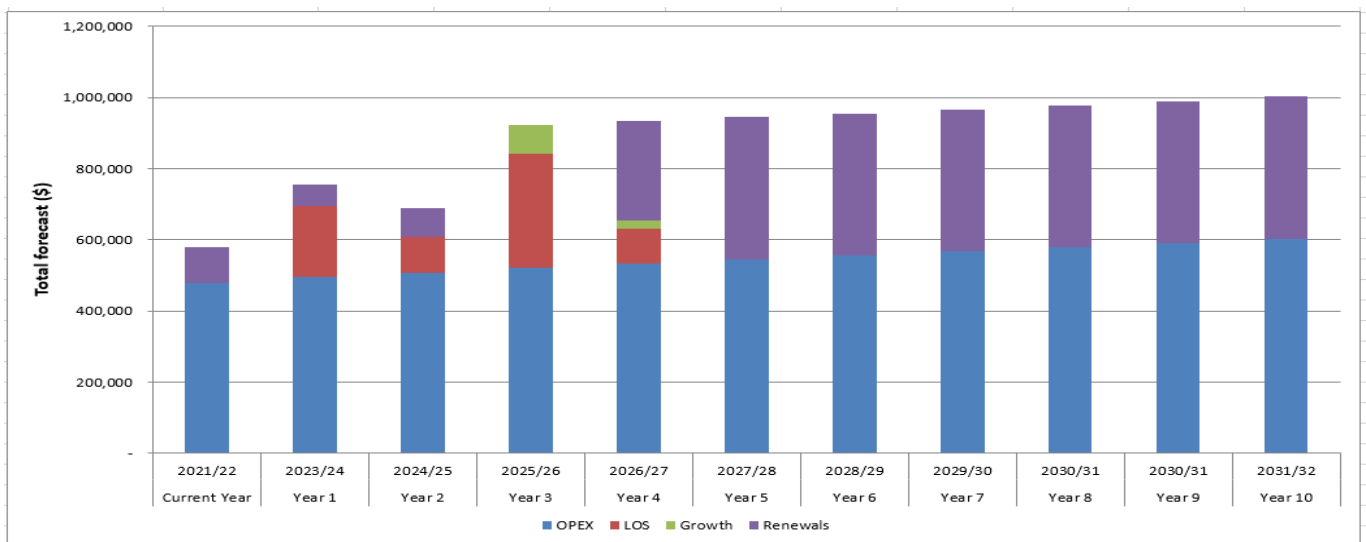


Figure 5: Summary of Stormwater Drainage Total Expenditure Forecast



Table 18: Summary of Stormwater Drainage Total Expenditure Forecast

STORMWATER DRAINAGE SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPEX	479,084	495,922	508,428	521,048	534,087	544,663	555,513	566,647	578,070	589,791	601,817	5,495,986
LOS	-	200,000	100,000	320,000	96,000	-	-	-	-	-	-	716,000
Growth	-	-	-	80,000	24,000	-	-	-	-	-	-	104,000
Renewals	100,000	60,000	80,000	-	280,000	400,000	400,000	400,000	400,000	400,000	400,000	2,820,000
TOTAL	579,084	755,922	688,428	921,048	934,087	944,663	955,513	966,647	978,070	989,791	1,001,817	9,135,986

7.1.2 Operational expenditure summary

The recommended ten-year operational expenditure forecast is shown in Table 19 with \$5.2 million forecast over the next ten years. This shows that corporate administration overheads are 35% of the total operations expenditure, followed by stormwater drainage maintenance at 40%.

Table 19: Summary of Stormwater Drainage Operational Expenditure

STORMWATER OPEX SUMMARY	CURRENT	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	10 YEAR TOTAL
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Stormwater Drainage Maintenance	191,500	196,500	202,835	209,271	215,806	221,573	227,495	233,577	239,822	246,236	252,822	2,245,937
INDIRECT ASSET COSTS												
Depreciation	125,963	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	1,259,510
Administration Overheads	161,621	173,471	179,642	185,826	192,330	197,139	202,067	207,119	212,297	217,604	223,044	1,990,539
TOTAL	479,084	495,922	508,428	521,048	534,087	544,663	555,513	566,647	578,070	589,791	601,817	5,495,986

7.2 Capital Expenditure

There is a total of \$3.6 million for capital expenditure for the next ten years as shown in Table 18. Total annual renewals fluctuate over the next 10 years with only minor renewal expenditure required due to the relative young age of the stormwater drainage network within its lifecycle. It is estimated that 19.67% of the capital expenditure is for new LOS works. The full capital expenditure program is detailed in Appendix B.

7.3 Forecast Reliability and Confidence

The expenditure and valuations projections in the Stormwater and Drainage AMP are based on the best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale in accordance with Table 20.

Table 20: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in Stormwater drainage AMP is shown in Table 21.

Table 21: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C	
Growth projections	C	Multiple scenarios developed and considered during 30 year financial modelling
Operations expenditures	B	Current levels generally known and recorded, scenarios considering additional resourcing need to be developed
Maintenance expenditures	B	Generally known but maintenance history not recorded at asset ID level. Need to start recording work history to asset lengths in CONFIRM to improve renewal planning.

Data	Confidence Assessment	Comment
Projected Renewal exps.		
- Asset values	B	Asset revaluation completed in June 2021. Major revaluation scheduled for every five years and due 2026/27.
- Asset useful lives	B	Useful lives are currently being reviewed.
- Condition modelling	E	There has been limited condition information collected and therefore no modelling undertaken to date.
- Network renewals	C	Generally sound renewal programs based on operational knowledge and identified defects.
- Defect repairs	C	
Upgrade/New expenditures	B	Based on specific studies and/or designs.
Disposal expenditures	C	Generally, as part of a capital project or at asset component level for complex assets. Disposal costs are generally included as part of the capital project.

Over all data sources, the data confidence is assessed as reliable confidence level for data used in the preparation of this AMP.

8 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

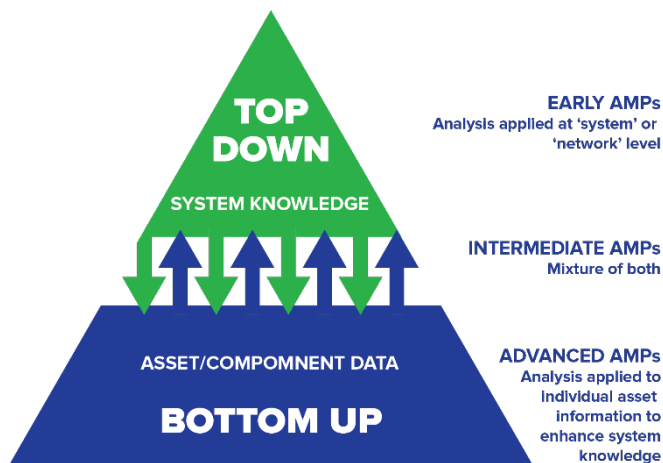
Asset Management Commitment

Through the initiatives presented in this section, Council is committed to appropriate asset management practices. This practice is being developed in line with the IPWEA NAMS practice as presented the suite of asset management publications including the 2015 IIMM. Council is committed to delivering the most appropriate levels of service balanced with affordability and good industry practice.

Core and Advanced Asset Management

This plan is prepared as a ‘core’ AMP over a 10 year planning period in accordance with the 2015 IIMM. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a ‘top down’ approach where analysis is applied at the ‘system’ or ‘network’ level as shown in Figure 66.

Future revisions of this AMP will move towards ‘intermediate’ asset management using a ‘bottom up’ approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.



8.2 Accounting and financial systems

Council uses the Authority suite for its financial / accounting systems. Responsibility for the financial system lies with the Finance Manager and the Director of Corporate & Community Services. Council currently has a maintenance/capital threshold.

Council manages and is responsible for all of the accounting, budgeting and financial aspects of all of its assets. The primary issue for the financial systems section is to:

- Ensure that asset valuations are conducted regularly
- Valuations match what is out in the field
- Ensure that updates to the system are regularly undertaken.

Accountabilities for financial systems

Under the Local Government Act 1993 the Finance Section of Upper Hunter Shire Council must meet reporting requirements. These include budget reviews with all AMP sections within the Council. They also must provide an annual report outlining the year's achievements, in terms of meeting its objectives and performance targets as it had set out. This document also outlines the amount of expenditure required to meet the standards set in the asset plans, the amount of annual maintenance required to keep the assets at the level of service specified, and Upper Hunter Shire Council's maintenance program for the year in relation to the work carried out.

Accounting standards and regulations

To effectively account for the stormwater assets of Upper Hunter Shire Council, the Finance Section must meet statutory and regulatory reporting protocols. These protocols are addressed in the Local Government Act 1993.

Capital/maintenance threshold

Renewal or enhancement works over \$5,000 are capitalised.

Required changes to accounting financial systems arising from this AMP

Areas that need to be investigated include establishing an integrated work orders system for Stormwater Assets. This will allow for a thorough costing of the planned, cyclic and reactive maintenance tasks in the Stormwater system. This process is well advanced for other sections of Council, and now needs to be extended to the Stormwater System.

The blockage history is currently only recorded on Customer Request Management (CRM) system and not CONFIRM so the stormwater failure analysis is difficult to undertake. This is recognised as a high priority to enable a sound stormwater maintenance and renewal program (if required) to be developed.

8.2.1 Asset Registers and Management Systems

Currently CONFIRM is used, supplemented by spreadsheets and Content Manager documentation. There is a need to obtain more sophisticated reports from CONFIRM, and also to increase the skills and training of a number of Council officers who either presently, or could in future, use the CONFIRM system. Currently, there is a link between asset management systems and accounting systems. In order for this AMP to grow in maturity and improve in accuracy it is vital that integration of asset register systems and financial systems be further improved.

Required changes to asset management system arising from this AMP

- Condition monitoring and obsolescence to be accounted for and recorded

Asset Management Plan – Stormwater & Drainage

- The link between the financial plan, asset plan and the works order system will be addressed in the future
- Establish recording systems where reactive maintenance can be measured in terms of frequency and scope of work undertaken
- For CONFIRM, improve the provision for, and records contained, in the large single point assets.

The process for updating CONFIRM is currently ad hoc and under resourced. Asset updates are mainly undertaken for audit reporting purposes rather than for long term asset management planning. A sound and complete asset inventory is essential for Council to manage stormwater drainage sustainably. This is recognised as a very high improvement task.

8.3 Action and Improvement Program

Key improvement programmes and associated projects have been developed through a review of the gaps in developing this draft AMP and the issues identified. The three year improvement programme is summarised in Table 22.

Table 22: Improvement Plan Summary Programme

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
Asset Data	Develop a regime covering inspection program and reporting and recording mechanisms.	2021/22	Very High	Strategic Assets
Asset valuation	Review the currently used asset useful lives prior to the next major asset revaluation.	2021/22	High	Strategic Assets
Asset capability	Implement adequate resourcing and capability for updating the stormwater drainage asset inventory, collection of asset repair data, and updating asset condition assessment records.	Ongoing	Very High	Strategic Assets
Renewal planning	Undertake proactive and regular analysis of the stormwater blockages and overflow history.	2021/22	High	Strategic Assets, Operations Services
	Revise and improve the effectiveness of the current stormwater renewal program	2021/22	High	Strategic Assets
Risk management	Develop an Emergency Response Plan for the critical stormwater assets.	2021/22	High	Strategic Assets, Internal Auditor/Risk
Systems Improvements	Maintenance Service Agreement – review current levels of service, covering maintenance activities and service standards, to reflect the work undertaken with the current budget	2021/22	High	Strategic Assets, Information Technology,

AM Improvement Area	Action	Indicative Timeframe	Priority	Responsibility
				Operations Services

8.4 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council’s long term financial plan.

The AMP has a life of four years (Council election cycle) and is due for complete revision and updating within one year of each Council election.

8.5 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this AMP are incorporated into the organisation’s long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the ‘global’ works program trends provided by the AMP
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation’s Strategic Plan and associated plans

9 LATEST ASSET AND LOS INFORMATION

9.1 Stormwater asset summary

A summary of the Shire’s stormwater and drainage asset class values as at 30 June 2021 are shown in Table 23.

Table 23: Value of stormwater asset classes

STORMWATER ASSET CLASS	CURRENT REPLACEMENT VALUE (\$)	ACCUMULATED DEPRECIATION (\$)	WRITTEN DOWN VALUE (WDV) (\$)
Pit	3,078,224	610,941	2,467,283
Pipe	16,808,305	3,710,041	13,098,264
Box Culvert	10,368,417	4,103,234	6,265,183
Headwall	524,815	184,878	339,937
Open Channel	730,009	-	730,009
Basin	1,210,597	-	1,210,597
Causeway	425,160	258,480	166,680

Asset Management Plan – Stormwater & Drainage

STORMWATER ASSET CLASS	CURRENT REPLACEMENT VALUE (\$)	ACCUMULATED DEPRECIATION (\$)	WRITTEN DOWN VALUE (WDV) (\$)
Dish Drain	374,806	100,164	274,642
Gutter Bridge	200	73	127
TOTAL	33,520,533	8,967,811	24,552,722

From the latest assessment of the asset inventory, the stormwater system consists of:

- 1,343 Pits
- 44,586m Pipe
- 2,361m Box Culvert
- 441 Headwalls
- 2,110m Open Channel
- 341m Basin
- 234m Causeway
- 1,350m Dish Drain
- 4 Gutter Bridge

9.2 Service Level Summary

The levels of service and performance measures for stormwater drainage are summarised in Table 24.

Table 24: Stormwater Drainage Service Levels and Performance Measure Summary

KEY SERVICE ATTRIBUTE	CUSTOMER LOS	PERFORMANCE MEASURE	PERFORMANCE MEASURE TYPE	LOS PERFORMANCE FOR 2020/21
Minor Flooding	Minimal disruption associated with Minor Flooding	Complaints from residents regarding minor flooding	< 12 complaints per year	Met (CRM subject = CRFlooding)
Major Flooding	Adequate mitigation of major flooding events – warning, reduction of damage, etc.	Adequate systems in place and appropriate knowledge of risk	Complete regional studies and Implement recommendations as per program and funding allows	Substantially met / in progress
Impact of Works	Good construction practices during and	Business and personal	< 3 complaints per year as a result of	Met (CRM subject = CRFootRepA,

KEY SERVICE ATTRIBUTE	CUSTOMER LOS	PERFORMANCE MEASURE	PERFORMANCE MEASURE TYPE	LOS PERFORMANCE FOR 2020/21
	planning for construction	disruptions during construction	recent construction	CRDrvCrss, CRFootPgm)
Design	Designs meet or exceed industry best practice regarding capacity and Environmental Design provide prompt responses for service	Current Australian Standards and guidelines met	Guidelines met or exceeded	Met
Maintenance	Maintenance levels keep the drainage system functioning	Function of the drainage system	< 40 complaints per year regarding flooding and < 5 insurance claims per year	Met (all flooding – related requirements)
	Stormwater Quality Improvement Device structures function as designed	Function and appearance of the Structure system	No flooding arising from maintenance issue	Met (CRM subject = CRDragOUt, CRDrainCrk, CRResvGen)

9.3 Infrastructure Asset Performance Indicators

The asset performance indicators are summarised in Table 25. The ten-year asset ratio forecasts based on three year rolling averages are detailed in Appendix D.

Table 25: Asset performance indicators

RATIO	PURPOSE	2020/21	BENCHMARKS	ACHIEVED	COMMENTS
Infrastructure Renewals Ratio	To assess the proportion spent on infrastructure renewals vs infrastructure deterioration	185.24%	>100%	Yes	Renewals planned for the next two years will reach benchmarks
Infrastructure Backlog Ratio (estimated cost to bring the assets to a satisfactory	To assess the infrastructure backlog against the total value of council’s infrastructure	3.16%	<2%	No	Backlog ratio remains over the benchmark for the 10 year period

Asset Management Plan – Stormwater & Drainage

condition/ value of assets)					
Asset Maintenance Ratio	To assess the actual vs required annual maintenance expenditure	42.00%	>100%	No	Council's stormwater drainage assets require additional maintenance funding
Capital Expenditure Ratio (assessed as annual capital expenditure/ annual depreciation)	To assess the extent to which council is expanding its asset base through capital expenditure (on both new assets and through replacement of existing assets)	2.97	>1.1	Yes	Capital expenditure planned over the next ten year average is favourable to the benchmarks

It must be noted that these ratios are purely based on financial information not the physical infrastructure that has been renewed. That is to say, that although Council may be financially meeting the benchmark of renewals but may in fact not be physically due to the increased cost of renewals. For example, the average cost for renewing one hundred metres of storm water pipes may have been \$100,000, this same work may now be costing \$150,000. So financially Council is meeting its requirements and benchmarks, it may in fact be physically increasing the 'backlog of works'. This has serious consequences moving into the future regarding budgets, levels of service and overall sustainability.

The Infrastructure Renewal Ratio (Renewals/Depreciation) for 2020/21 and has a ratio of 185.24%, this is higher than the benchmark of 100%. Future budgets have projects that include significant renewal and in the following two years this ratio meets the required benchmark.

The Infrastructure Backlog Ratio (Cost to Bring to Satisfactory/Replacement Cost) for 2020/21 has been determined to be 3.16% which is greater than the benchmark of 2%. There needs to be an increase in capital expenditure with a clear focus on renewal programs and/or an increase in operational expenditure with a strategic emphasis on efficient and effective planned maintenance regimes to assist in reducing this for the future.

The Asset Maintenance Ratio (Asset Maintenance Expense/Required Maintenance) for 2020/21 is 42% and does not meet the agreed benchmark of 100%. The required maintenance is calculated using the industry practice of 1% of the current replacement cost, which for 2020/21 is \$335,205. Furthermore, this ratio improves over the ten-year period but remains well below the benchmark at 64%. This indicates that an increase in operational expenditure is required to ensure the assets are maintained to an acceptable level of service and that premature renewals are not required. If this is not rectified the assets will have a declining condition and require much higher investments in asset renewals.

The Capital Expenditure Ratio (Capital Expenditure/ Depreciation) for 2020/21 is 297% and is significantly higher than the benchmark of 100%. This confirms the focus on expansion rather than renewal.

10 REFERENCES

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/IIMM

(Refer to Section 2.1 for relevant Council's documents in relation to this AMP).

11 APPENDICES

- Appendix A Acronym Glossary
- Appendix B Projected 10 Year Capital Renewal, Replacement and New Works Program
- Appendix C Operational Expenditure
- Appendix D Forecast of Asset Ratios to Local Government benchmarks
- Appendix E Stormwater Drainage Activity Risk Register
- Appendix F Glossary/ Definitions

Appendix A: Acronym Glossary

Acronym	Definition
AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
AMS	Asset management system
BASIX	Building Sustainability Index
CRC	Current replacement cost
CRM	Customer Request Management system
DA	Depreciable amount
DRC	Depreciated replacement cost
DPI	Department of Primary Industries Water
DPOP	Delivery Program and Operational Plan

Asset Management Plan – Stormwater & Drainage

Acronym	Definition
EF	Earthworks/formation
IIMM	International Infrastructure Management Manual
IWCM	Integrated Water Cycle Management Plan
LCMP	Lifecycle Management Plan
LOS	Levels of Service
LTFP	Long term financial plan
MMS	Maintenance management system
POEO	Protection of Environment Operations Act
RV	Residual value
WARR	Waste Avoidance and Recovery Act
WDV	Written Down Value



B: Projected 10 year Capital Renewal, Replacement and New Works Program

Project Description	TYPE OF WORKS			Cost of Renewals	TOTALS	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 YEAR TOTAL
	Improved LOS	Growth	Renewals			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
4439. Belmore St Channel	100%				200,000	-	200,000	-	-	-	-	-	-	-	-	-	200,000
4918. Macqueen St Abn (A010-A020) Replacement			100%		-	-	-	-	-	-	-	-	-	-	-	-	-
4921. Liverpool St (Guernsey to Parsons Gully)	80%	20%			520,000	-	-	-	400,000	120,000	-	-	-	-	-	-	520,000
4956. Segenhoe & Graeme Sts Abn			100%			100,000	-	-	-	-	-	-	-	-	-	-	-
4970. Stormwater Replacement Program			100%	2,820,000	2,820,000	-	60,000	80,000	-	280,000	400,000	400,000	400,000	400,000	400,000	400,000	2,820,000
5411. Abn Stormwater Drainage Study & Assess	100%				100,000	-	-	100,000	-	-	-	-	-	-	-	-	100,000
TOTAL CAPITAL WORKS EXPENDITURE PROPOSED FOR TEN YEAR PERIOD					3,640,000	100,000	260,000	180,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	3,640,000
TOTAL RENEWALS ONLY EXPENDITURE PROPOSED FOR TEN YEAR PERIOD				2,820,000													



Appendix C: Operational Expenditure

STORMWATER OPEX SUMMARY	CURRENT 2021/22	Year 1 2022/23	Year 2 2023/24	Year 3 2024/25	Year 4 2025/26	Year 5 2026/27	Year 6 2027/28	Year 7 2028/29	Year 8 2029/30	Year 9 2030/31	Year 10 2031/32	10 YEAR TOTAL
OPERATING EXPENDITURE												
DIRECT ASSET COSTS												
Stormwater Drainage Maintenance	191,500	196,500	202,835	209,271	215,806	221,573	227,495	233,577	239,822	246,236	252,822	2,245,937
INDIRECT ASSET COSTS												
Depreciation	125,963	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	1,259,510
Administration Overheads	161,621	173,471	179,642	185,826	192,330	197,139	202,067	207,119	212,297	217,604	223,044	1,990,539
TOTAL	479,084	495,922	508,428	521,048	534,087	544,663	555,513	566,647	578,070	589,791	601,817	5,495,986



Appendix D: Forecast of Asset Ratios to Local Government Benchmarks

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
INFRASTRUCTURE RENEWAL												
Asset Renewals	233,316	100,000	60,000	80,000	-	280,000	400,000	400,000	400,000	400,000	400,000	
Depreciation Expense	125,951	125,963	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	
INFRASTRUCTURE BACKLOG												
Estimated Cost to bring back to Satisfactory	775,000	2,300,381	2,278,781	2,249,981	2,249,981	2,149,181	2,005,181	1,861,181	1,717,181	1,573,181	1,429,181	
Closing Value of Assets	24,552,722	24,526,759	24,660,808	24,714,857	24,988,906	25,262,955	25,537,004	25,811,053	26,085,102	26,359,151	26,633,200	
ASSET MAINTENANCE												
Asset Maintenance Expense	78,000	191,500	196,500	202,835	209,271	215,806	221,573	227,495	233,577	239,822	246,236	
Required Asset Maintenance	185,000	335,105	337,045	337,965	341,965	342,885	342,485	342,085	341,685	341,285	340,885	
CAPITAL EXPENDITURE												
Annual Capital Expenditure	373,486	100,000	260,000	180,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	
Annual Depreciation Expense	125,951	125,963	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	125,951	
SS7 Data												
Gross Replacement Cost (GRC)	33,520,533	33,620,533	33,880,533	34,060,533	34,460,533	34,860,533	35,260,533	35,660,533	36,060,533	36,460,533	36,860,533	
% Infrastructure Condition 4 and above	5.10%	4.98%	4.88%	4.77%	4.72%	4.38%	3.92%	3.45%	2.99%	2.52%	2.06%	
% Infrastructure Condition 3 and above	25.60%	25.28%	24.94%	24.61%	24.32%	23.36%	22.10%	20.84%	19.58%	18.31%	17.04%	
RATIOS BASED ON 3YR AVERAGE												
	Benchmark											
INFRASTRUCTURE RENEWAL	100%	185.24%	101.95%	104.09%	63.51%	37.05%	95.28%	179.96%	285.83%	317.58%	317.58%	317.58%
INFRASTRUCTURE BACKLOG	2%	3.16%	5.14%	7.26%	9.24%	9.12%	8.87%	8.45%	7.85%	7.21%	6.58%	5.97%
ASSET MAINTENANCE	100%	0.42	0.50	0.54	0.58	0.60	0.61	0.63	0.65	0.67	0.68	0.70
CAPITAL EXPENDITURE	110%	2.97	1.93	1.94	1.43	2.22	2.59	3.18	3.18	3.18	3.18	3.18
ACTUAL RATIO MEETING BENCHMARK												
Infrastructure Renewal	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	
Infrastructure Backlog	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
Asset Maintenance	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	
Capital Expenditure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	



Appendix E: Stormwater & Drainage Activity Risk Register

Risk	Consequence	Likelihood	Risk Rating	Proposed Treatment	Responsibility	Completion Date
Blocked minor drainage structure flooding adjacent property	Moderate	Likely	High	SEPs are inspected on an annual basis and several proactive litter management programs are in place. A register of known flooding issues also exists in Council's GIS that can be prioritised in terms of importance and remedied.	Operation Services	Ongoing
Major Flooding as a result of high rainfall event	Major	Possible	High	Annual Flood Mitigation Program	Engineering, Strategy and Assets	Ongoing
Minor flooding from under capacity infrastructure	Insignificant	Possible	Low	Kerb renewal works and flood mitigation works	Engineering, Strategy and Assets	Ongoing
Increases in environmental standards through regulation and changing public expectations	Minor	Rare	Low	Upgrade assets to meet new Standards during renewal	Open Space, Recreation and Property	Ongoing
The quality of data on management information systems (Specifically GIS) The failure of Stormwater Quality Improvement Devices	Minor	Possible	Moderate	Ongoing program of updating data through Capital Works Program/ inspections	Engineering, Strategy and Assets	Ongoing
The failure of Stormwater Quality Improvement Devices	Moderate	Possible	Moderate	Regular maintenance of Stormwater Quality improvement Devices	Operation Services	Ongoing
The accuracy of stormwater modelling	Moderate	Possible	Moderate	Checks at the design stage and during the formation of the project brief	Engineering, Strategy and Assets	Ongoing
Ongoing changes to weather patterns	Moderate	Possible	Moderate	Forward planning to ensure capacity is adequate	Engineering, Strategy and Assets	Ongoing

Appendix F: Glossary

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically

required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost “As New” (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.

Greenfield asset values **

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

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).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, e.g. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, e.g. power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned Maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash

inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows,

Asset Management Plan – Stormwater & Drainage

where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC

Additional glossary items shown **

Version History

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2011	Initial draft	JB/GD	JB	JB
2	February 2013	Update asset inventory and financial data	JB/GD	JB	JB
3	March 2017	Update asset inventory and financial data	JB/ GNS	JB/WP/ST	JB
4	April 2019	Update asset inventory and financial data	GNS/AG	JB/WP	JB
5	June 2020	Update asset inventory and financial data	GNS/KW	JB	JB
6	June 2021	Update asset inventory and financial data	GNS/KW	JB	JB
7	April 2022	Update asset inventory and financial data	KW	JB	JB