RESOURCING STRATEGY
APPENDIX C
ASSET MANAGEMENT PLANS

NARRABRI SHIRE
DISCOVER THE POTENTIAL

APPEDIX C:
ASSET MANAGEMENT PLANS

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ASSET MANAGEMENT POLICY

Responsible Department: Corporate and Community Services

Responsible Section: Projects and Assets

Responsible Officer: Manager Projects and Assets

Purpose

This Policy has been developed to ensure that Council complies with the management of its assets as required by the *Local Government Act 1993* (NSW). The Policy outlines Council's commitment to implementing a methodology for systematic asset management that will assist Council with its decision making to inform operations to meet community expectations.

The Policy ensures that the systems and processes are in place to enable Council to determine the most effective and efficient options for delivering infrastructure related services while controlling exposure to risk and loss

Scope

This Policy covers all of Council's infrastructure assets within the core asset groups of 'Buildings, Other Structures and Recreation', 'Transport', 'Water' and 'Sewer' pursuant the NSW Office of Local Government's Integrated Planning & Reporting Guidelines established by the *Local Government Act 1993* (NSW) s 406.

This policy covers all relevant capacity planning, control and timing for asset related operational activities including inspections, maintenance and renewal of existing assets, and the analysis of any upgrade or extension to the infrastructure network.

Context within the Integrated Planning and Reporting Framework

The *Local Government Act 1993* (NSW) s 403 requires all councils in NSW to develop and implement a Resourcing Strategy by 30 June following the year of an Ordinary Council Election.

The Resourcing Strategy is the point where the council explains to its community how it intends to perform its functions, including implementing the strategies set out in the Community Strategic Plan.

This Policy sits within Council's Resourcing Strategy as part of the Asset Management Plan:
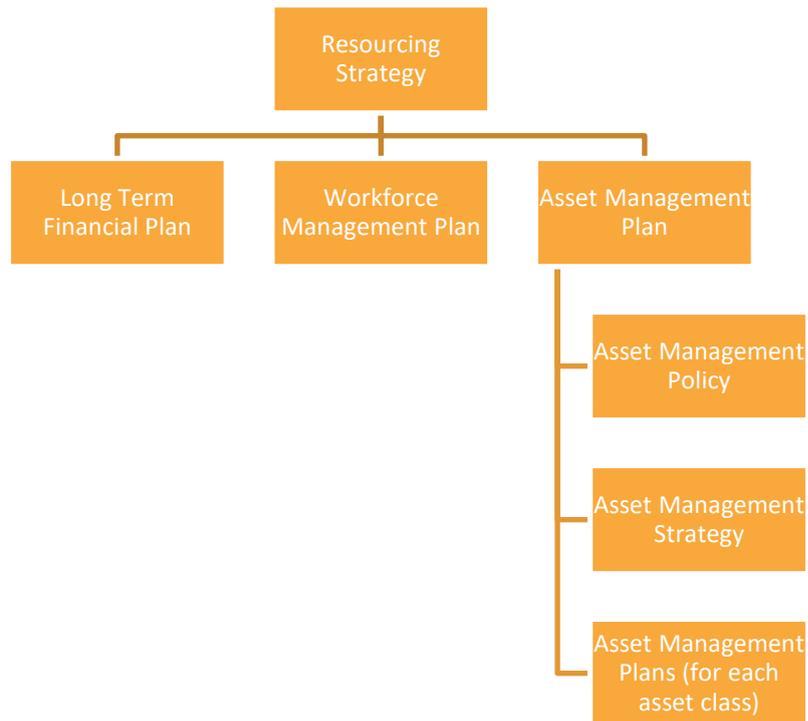
Objective

The vision underlying this policy is that Council should be able to sustainably maintain, improve and grow its assets to support services in a way that minimises risk and impact on the environment, and which demonstrates best value.

In doing this Council will comply with all legal, regulatory, safety and environmental requirements placed upon it and will not compromise the safety of its employees or the public.

In support of this vision, our underlying principles of asset management are:

- **Appropriate assets:** Our assets will be accessible, safe, and suitable for community use.
- **Community benefit**: We will innovatively use our asset base to support the social, cultural, and economic wellbeing of the community.
- **Service delivery:** Asset planning will be informed by community need and affordable levels of service.
- **Informed decision making:** We will ensure all decisions incorporate a life cycle approach to asset management while meeting legislative requirements and managing risks.
- **Financial sustainability:** We will ensure that present needs are provided for whilst sustaining resources for the benefit of current and future generations.
- **Environmental sustainability:** Assets will be planned and developed to incorporate climate resiliency and mitigate Council's environmental impact.
- **Good Practice:** We will demonstrate transparent, responsible management processes to align with accepted best practice where all employees take an integral part in the overall management of our assets.

Introduction

Council recognises that to determine the community's needs and required service levels, holistic consultation is an essential part of asset management. Council will undertake community consultation to determine the need for infrastructure assets, along with determination of the service levels required.

Council is committed to identifying life cycle costs including the increase in operating expenses in future budgets as a consequence of all proposals involving new assets and services, or upgrades to existing assets and services. Council will ensure all assets are planned, created, operated, maintained, renewed, and disposed of in accordance with Council priorities for service delivery.

A consistent strategic approach to asset management will ensure Council delivers the highest appropriate level of service, providing positive impact on:

- Members of the public and staff,
- Councils financial bottom line,
- Council's ability to deliver infrastructure assets at the expected levels of service,
- The political environment within which Council operates, and
- The legal liabilities of Council.

Appropriate asset management practices will impact directly on the core business of the organisation, enhancing Council's ability to achieve its strategic objectives.

Decisions relating to asset management will be reflected in the strategic objectives, strategies, actions, and performance measures outlined in Council's adopted Community Strategic Plan, Delivery Program and Operational Plan which in turn are informed by Council's Asset Management Strategy and Plans.

This Policy also commits Council to implementing asset management best practice across all departments of Council.

Council's commitment will consider relevant legislation along with political, environmental, economic, and social factors of relevance to community needs. Council is committed to the implementation of a proactive management system that includes:

- Asset registers
- Asset condition assessments
- Asset maintenance and management systems
- Strategic planning capabilities
- Predictive modelling
- Deterioration modelling
- Risk analysis
- Lifecycle costing

Policy

1. Council will aspire to achieving advanced asset management practices that are service driven, align with the strategic priorities and directions of Council, and are informed by community input.
2. An appropriate governance structure will be established so that ownership, control, accountability, and reporting requirements for assets are established, clearly communicated, and implemented.
3. Council will comply with all legislative and regulatory obligations.
4. Asset management plans will be developed for all major asset categories covering a period of at least 10 years.
5. Council will aim to deliver long term financial sustainability by making decisions that lead to a cost-effective asset base. This will be supported by focussing on asset renewal before providing new assets, rationalising under-utilised assets, and limiting asset expansion unless justified.
6. Council is committed to prioritising asset expenditure based upon agreed service levels, the ability of the

current assets to meet the needs of the community, and Council's available resources.

7. Asset development and renewal will be:
   - Driven by community needs as reflected in the Community Strategic Plan
   - Identified in Council's long-term Asset Management Plans
   - Accounted for in Council's Long Term Financial Plan, and
   - Reflected in the Delivery Program and Operational Plan.

8. Asset renewals required to meet agreed service levels will form the basis of annual budget estimates and be prioritised and implemented progressively.

9. Demonstrated need and future life cycle costing will be reported and considered in decisions relative to new services or assets and upgrading of existing services or assets.

10. Council will incorporate consideration of risk management requirements in decision making processes.

11. Systematic and cyclic reviews will be applied to all asset classes to ensure they are managed, valued, and depreciated in accordance with appropriate best practice as prescribed by Australian Standards, including the Australian Accounting Standards Board's AASB 116.

12. Investment will be made in appropriate and timely asset management training and development program for staff.

Responsibilities

Council recognises that the very nature of asset management requires input and interaction between all facets of the organisation, including units that do not have specific responsibility for managing assets but use Council assets in the delivery of services.

With a whole of Council approach to asset management, Council will establish the platform required for the sustainable and responsible management of Council's assets.

The key responsibilities and relationships associated with asset management within Council are:

Council

- To act as overall stewards for assets that are owned or controlled by Council.
- Set levels of service, risk, and cost within available resources.
- Ensure that asset management requirements and lifecycle costs are appropriately considered in decision making and catered for in council planning and financial management.
- Approve the Asset Management Policy, the Asset Management Strategy, and Asset Management Plans.
- Ensure appropriate allocation of asset management resources.
- Ensure asset management is part of senior management performance criteria.

Executive Management Team

- To ensure alignment/compliance with Council's legislative responsibilities including under the *Local Government Act 1993* (NSW).
- To meet all obligations of the Australian Accounting Standards as they relate to asset management.
- Accountable for overall organisational asset management and service planning performance.
- To continually promote asset management across the organisation and Council.
- Ensure that accurate and reliable information is presented to Council for decision-making.
- Provide adequate resources and oversight in the implementation of the asset management framework.
- Ensure that asset management and its governance are integrated into corporate governance including corporate planning, financial management, reporting, and risk management.

4

- To ensure Council's agreed levels of service are funded in the Long-Term Financial Plan including renewal and development investments.

Asset Management Steering Committee

- Provide a coordinated, consistent, collaborative, and integrated approach to service planning and asset management across Council.
- Support the development, monitoring and review of the Asset Management Policy, Asset Management Strategy, and Asset Management Plans.
- Champion asset management across Council and support the evaluation and development of organisational asset management capability.
- Monitor progress of the implementation of the Asset Management Strategy, Asset Management Plans, and related improvement actions and the reporting of status and recommendations to the Executive Management Team.
- To ensure asset condition is monitored and reported in Council's Asset Management Plans on a cyclical basis

Asset Management Team and Council Staff

- Prepare, implement, and review the Asset Management Policy, Asset Management Strategy, and Asset Management Plans.
- Manage asset systems, develop procedures, and ensure compliance with standards and to support decision making, accountability and improvement.
- Maintain detailed asset registers providing a common data set for organisational purposes.
- Effectively and efficiently manage funds allocated for asset maintenance, operations, and asset related projects.
- Promote and raise awareness of asset management across the organisation and through the community.
- Proactively seek development of skills, abilities, and education where required to meet the requirements of the role.
- Provide asset information and assistance to Council's Service Managers.
- Be innovative, identify and communicate opportunities for improvement.

Capacity Building

To ensure that Council's asset management capabilities are best appropriate practice, Council will:

- Review skills and development needs in asset management related areas as part of employee performance planning and provide appropriate development opportunities.
- Provide Councillors and staff with asset and financial responsibilities with appropriate briefings in relevant asset and financial management principles, practices, and processes.
- Provide and allocate resources for training to support asset management across the organisation.

References

- *Local Government Act 1993* (NSW)
- NSW Office of Local Government's Integrated Planning and Reporting Guidelines and Handbook
- Local Government Financial Sustainability Framework
- International Infrastructure Management Manual (IIMM)

Related Documents

Asset Management Strategy and all associated Asset Management Plans.

Review Date

This Policy has a lifespan of four (4) years and will subsequently be reviewed prior to the next Ordinary Local Governmentelection.

History

Minute Number	Meeting Date	Description of Change
472/2011	August 16, 2011	Adopted
210/2013	April 2, 2013	Reviewed
95/2017	June 27, 2017	Reviewed
	June 28, 2020	For Adoption

2022 Asset Management Strategy

Document Control

Prepared by: CT Management Group P/L PO Box 1374 GEELONG VIC 3220	Document : Narrabri Shire Council Asset Management Strategy - Draft v1.0.docx
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	Date: March 2022
Email : admin@ctman.com.au Web : www.ctman.com.au	Synopsis: *Strategy outlining the implementation of the Asset Management Framework*

CONSULTANTS DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
1.1	14/03/2022	Narrabri Shire Council	Draft
1.2	29/04/2022	Narrabri Shire Council	Draft
1.3	01/06/2022	Narrabri Shire Council	Draft

SCHEDULE OF ADOPTION

Version No.	Date	Comment	Resolution
1.2	16/05/2022	Endorsed for Public Exhibition	130/2022
1.3	28/06/2022	Adopted	

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1. Introduction

1.1   About Narrabri Shire

Narrabri Shire is located halfway between Brisbane and Sydney. It is two and a half hours from the Queensland border and is well serviced by road, rail, and air. The Shire's largest town of Narrabri is positioned on the crossroads of the Newell and Kamilaroi Highways.

Narrabri Shire has a population of some 13,270 residents and covers an area of around 13,000 square kilometres. It is located in the heart of the Namoi Valley in the North West slopes and plains of New South Wales. The town of Narrabri is the administrative centre of the Shire.

Narrabri Shire is a modern regional growth centre encompassing a strong business community. The area has diversified from its traditional agricultural base of grain, cotton, wool, beef and prime lamb production to coal mining and gas extraction and exploration. The advent of these new resource based industries in conjunction with ancillary business is providing a breadth and depth to the local economy.

1.2   The Assets Council Manage

Narrabri Shire Council is the custodian of an extensive portfolio of infrastructure, community, and operational assets. These assets assist us in delivering services to the community and include:

- Roads, both sealed and unsealed.
- Bridges and major drainage structures.
- Footpaths and shared paths.
- Buildings including community halls, libraries, sporting pavilions, public toilets, and administrative and operational facilities.
- Stormwater drainage assets including pits and underground pipes.

- Open space assets covering playgrounds, park furniture and amenities, sports fields, and playing courts.
- Sewer and sewage treatment assets.
- Water supply network.

Today, like in many Australian communities, many of the assets are aging and require significant ongoing maintenance, partly because most of the assets were built decades ago. The needs of the community are also changing, including increased expectations and demand for new and improved services.

All of these issues means that it is critical that we are good asset managers and invest in the maintenance, renewal, and improvement of assets wisely.

1.3 What is Asset Management

Asset management refers to the coordinated series of activities that monitor and maintain things of value — in this case, physical assets. This involves balancing risk, cost, opportunities, and performance to realise the value of an asset fully and effectively over its entire lifespan.

Ultimately, asset management is a way to align strategic planning with infrastructure and service delivery in the real world. What assets do people need? How can these assets be made to last the longest and perform the best?

1.4 Why is Asset Management Important?

Infrastructure is at the heart of everything that Council does. As infrastructure assets can provide services over extended periods of time, the choices Council make today can impact the quality of life of future generations.

Asset management provides us with the ability to understand the immediate, medium, and long-term impacts of decisions and provide solutions on how to mitigate potential risks.

The benefits of good asset management include:

- Improved cost efficiency by looking at the costs of assets over their entire lifecycle.
- Being able to target critical assets to ensure performance is maintained and risks are managed.
- Better understanding of what levels of service can be achieved for different costs.
- Ensuring infrastructure networks are appropriately funded for the long term.
- Improving customer satisfaction by matching the services and assets Council provide to the community's expectations and willingness to pay.

1.5 Vision for Asset Management

As trusted stewards of Council's assets on behalf of the community, Council will sustainably maintain, improve, and grow its assets to support services in a way that minimises risk and impact on the environment, and which demonstrates best value.

In doing this Council will comply with all legal, regulatory, safety and environmental requirements placed upon it and will not compromise the safety of its employees or the public.

1.6　What is the Purpose of this Asset Management Strategy?

The purpose of this *Asset Management Strategy* is the development, implementation, and administration of service centric, community focused and sustainable asset management across Council.

The principles and strategies outlined in this document will help shape decision making and planning, to ensure sustainable service delivery for both current and future generations.

Asset Management Strategy follows the mandated *Integrated Planning and Reporting Framework*.

2. Council's Assets

All infrastructure assets, with a collective replacement cost of close to **$642.2 million**, belong to our ratepayers and are managed and operated by Council on their behalf.

Ensuring assets are appropriate for the community's needs enables Council to deliver the services that make the Narrabri Shire a great place to live, work and visit.
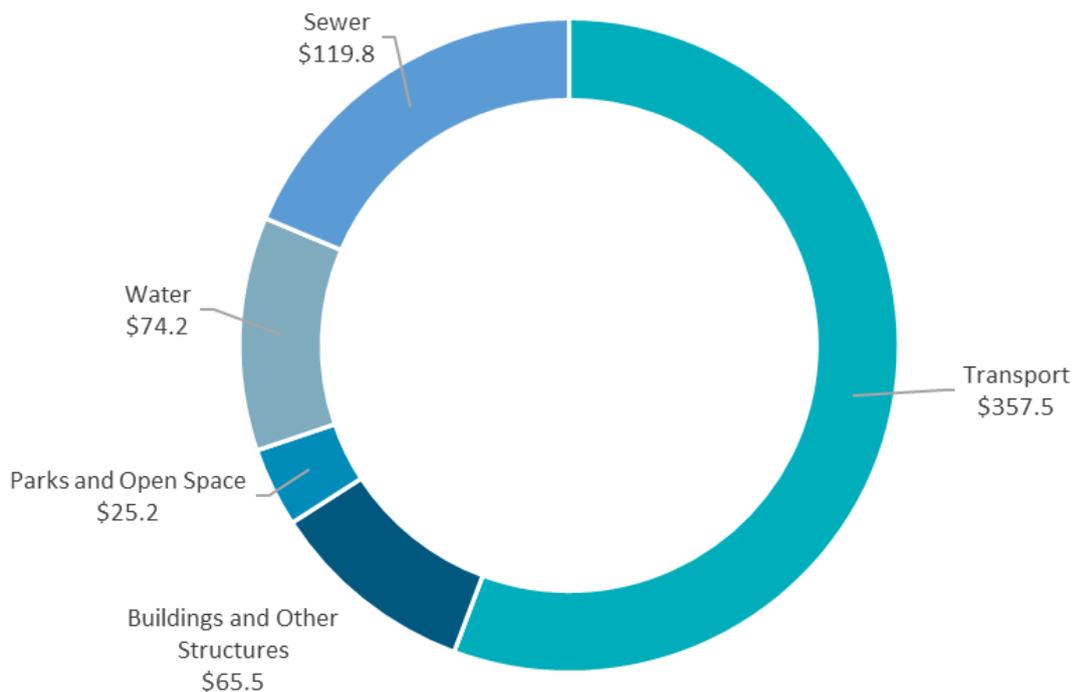
Figure 1 - Asset Value Summary ($ million)

This *Asset Management Strategy* provides guidance on all infrastructure assets, which are grouped into the following key asset classes:

Asset Class	Quantity	Replacement Value ($ million)
Transport	664.5 km of sealed roads, 1,679 km of unsealed roads, 62 bridges, 27.8 km of footpaths, 937 stormwater pits and structures, 22.7 km of drainage conduits	357.5
Buildings and Other Structures	218 buildings 79 other structures	65.5
Parks and Open Space	Includes streetscape and park furniture, playgrounds, cemeteries, swimming pools, recreations reserves, etc	25.2
Water	152 km of water mains, water fittings, 11 bores and associated pump stations, 18 potable water storage facilities.	74.2*
Sewer	139 km of sewer mains (gravity and rising), sewer connections, 12 sewer pump stations and 3 sewage treatment plants	119.8*
Total		**642.2**

Table 1 - **Asset Summary** *(Figures to be updated upon completion of 2022 Water and Sewer asset revaluations)*

3. Asset Management Framework

The Asset Management Framework enables Council to develop strategies that are fit for purpose for the quality, quantity, and type of assets, level of service expected by the community and actual demand experienced.

It allows decisions to be made about assets that are supported with structured processes and decision-making tools that consider the total lifecycle of assets.

The Asset Management Framework follows the principles of the National Asset Management Accountability Framework (NAMAF) and the ISO:55000 series of asset management standards with the aim of achieving the following benefits:

- Lower asset management costs over the long term.
- Alignment of strategic initiatives across the Asset Management Framework.
- Increased engagement of people, including leadership, communications, and cross-disciplinary teamwork.
- Alignment of processes, resources, and functional contributions.
- Better understanding and use of data and information to provide consistent and informed decisions.
- Consistent, prioritised, and auditable risk management.
- Improved asset management planning.

Asset Management Framework and its relationship with the broader corporate planning is presented in Figure 2.

This framework has been developed following good practice principles and in particular the relationship between the key elements of an ISO:55000 asset management system and the NAMAF.

The *Asset Management Framework* aims to ensure that a systematic approach to asset management delivers prudent and efficient outcomes that meet objectives.

3.1 Scope of the Asset Management Framework

Key elements of *Asset Management Framework* include:

- Asset Management Policy.
- Asset Management Strategy.
- Asset Management Plans.
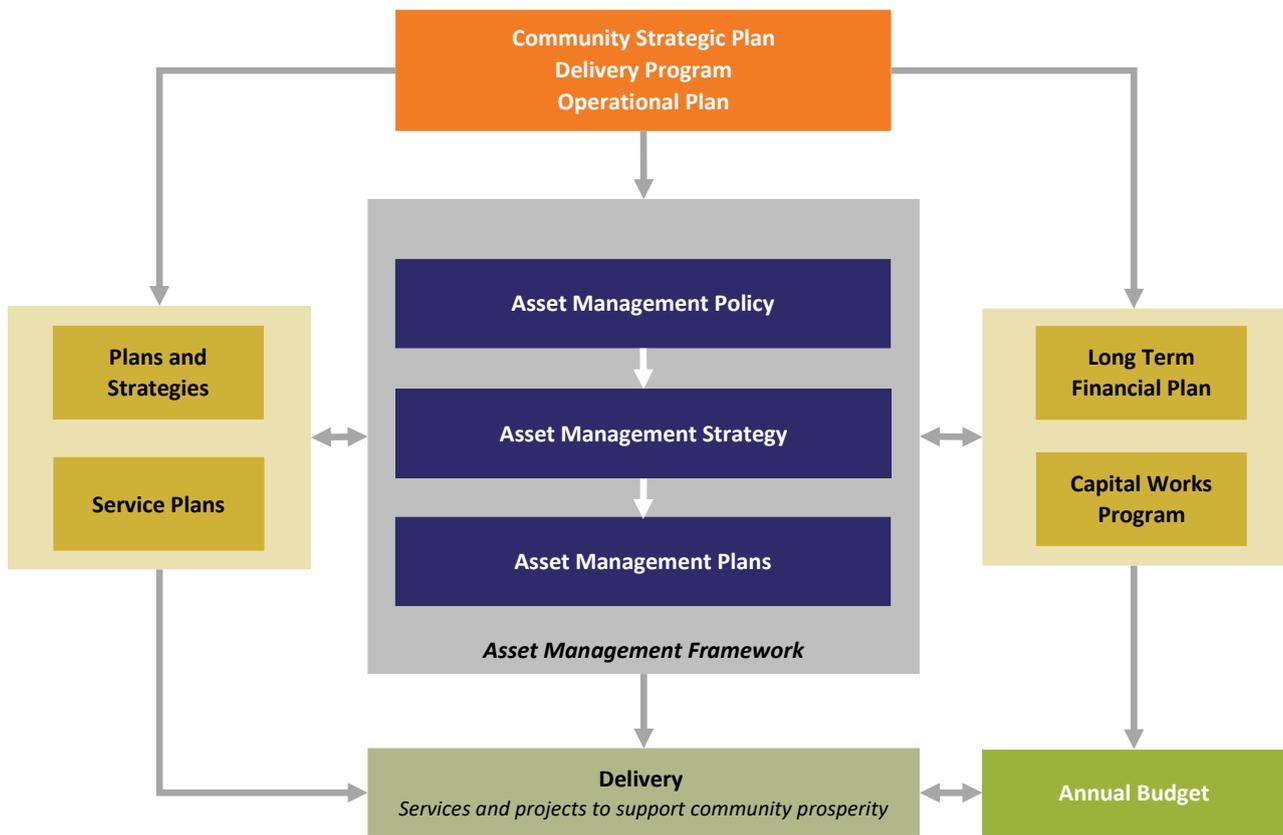
Figure 2 - Asset Management Framework

Asset Management Policy

To aid alignment of the asset management activities to the strategic goals, Council has adopted an *Asset Management Policy*.

This Policy applies to all of the assets and associated activities and is the overarching document that guides asset management framework. It provides a critical platform for Council to deliver its vision to be a thriving organisation known for inspiring, motivating, and equipping people for success.

Asset Management Strategy

This Asset Management Strategy outlines how Council will deliver asset management policy intentions. It does so by establishing the direction and actions necessary for improvement of relevant asset management practices to achieve the Council's vision and organisational objectives.

Asset Management Plans

Most of the asset management activities are managed at an asset class level. Council has prepared individual *Asset Management Plans* that each cover a 10-year planning horizon to assist in the management of our assets over their lifecycle. They summarise the operating and capital expenditure requirements for each asset class.

4. Strategic Context

Council is committed to sustainably planning for the future of Narrabri. Council do this by working directly with the community to understand the vision for the shire and its people.

This vision is delivered through a set of strategic plans including this Asset Management Strategy.

These plans inform and guide decision making and set out the outcomes and priority initiatives that compel action towards a thriving future.

Assets play a key role in the delivery of quality services and effective asset management helps to achieve strategic directions.

4.1 Council's Strategic Directions

The strategic directions outlined in our *Delivery Program* represent the priorities Council share with our community for the Narrabri Shire.

The strategic objectives are grouped into four strategic themes:

1. Our Society: *An empowered, inclusive, and connected community*	
Objective 1.1:	**A safe and healthy community**
Strategy 1.1.1:	Support, encourage and enhance health and wellbeing services and programs across the Shire.
Strategy 1.1.2:	Implement programs to improve crime prevention and risk management across the Shire.
Strategy 1.1.3:	Enhance opportunities for participation in sport and recreation across the Shire
Strategy 1.1.4:	Work to ensure that aged and childcare services meet the current and future needs of the Shire.
Objective 1.2:	**A vibrant and connected community**
Strategy 1.2.1:	Improve digital connectivity and access to technology across the Shire.
Strategy 1.2.2:	Develop, maintain, and enhance quality community spaces and facilities.
Strategy 1.2.3:	Ensure an accessible Shire for all.
Strategy 1.2.4:	Enhance access to arts and culture across the Shire.
Objective 1.3:	**A resilient and strong community**
Strategy 1.3.1:	Implement programs to revitalise townships across the Shire.
Strategy 1.3.2:	Empower the community's volunteers.
Strategy 1.3.3:	Strengthen community resilience through collaboration and capacity building.
Strategy 1.3.4:	Increase public amenity across all townships.
2. Our Environment: *A sustainable and compatible natural and built environment*	
Objective 2.1:	**A protected and enhanced natural environment**
Strategy 2.1.1:	Protect Aboriginal and non-Indigenous heritage whilst educating the broader community on its significance.
Strategy 2.1.2:	Protect and enhance the Shire's natural bushland, open spaces, and national parks.
Strategy 2.1.3:	Protect the Shire's natural environment through improved awareness and mitigation of destructive and invasive flora and fauna.
Strategy 2.1.4:	Promote and implement where appropriate sustainable practices, energy efficient and renewable technologies.
Objective 2.2:	**An integrated and strategic built environment**
Strategy 2.2.1:	Maintain, enhance, and support an integrated, diverse, and safe transport network: Pedestrian; Road; Rail; and Air.
Strategy 2.2.2:	Support the development of appropriate housing across the Shire.
Strategy 2.2.3:	Reduce the impact the built environment has on the natural environment.
Strategy 2.2.4:	Support strategic and non-conflicting land use that supports sustainable growth through zoning and advocacy.
Objective 2.3:	**A resilient and sustainable environment**
Strategy 2.3.1:	Mitigate impacts of adverse events through strategic planning and preparedness.
Strategy 2.3.2:	Ensure appropriate planning controls are implemented for the benefit of the community.
Strategy 2.3.3:	Responsibly manage, conserve, and protect water resources.
Strategy 2.3.4:	Responsibly manage waste disposal and support the transition to a circular waste economy.

3. Our Economy: *A strong, diverse, and sustainable economy*	
Objective 3.1:	**A diverse economy**
Strategy 3.1.1:	Support local employment opportunities
Strategy 3.1.2:	Actively engage with and support capacity building opportunities for local businesses and innovators.
Strategy 3.1.3:	Attract and support opportunities for investment and value-add industries within the Shire
Strategy 3.1.4:	Advocate for and support diverse education and personal development opportunities to ensure available skills meet local demand.
Objective 3.2:	**A regionally renowned economy**
Strategy 3.2.1:	Develop a state significant manufacturing, transport, and logistics hub.
Strategy 3.2.2:	Promote the Shire as an attractive environment to invest, visit and live.
Strategy 3.2.3:	Develop and support a variety of events and tourism opportunities in the Shire.
Strategy 3.2.4:	Capitalise on state significant development that occurs in the Shire for the benefit of the community.
Objective 3.3:	**A resilient and sustainable economy**
Strategy 3.3.1:	Support the resilience, growth, and diversity of the local economy.
Strategy 3.3.2:	Revenue from grants and funding programs is maximised and responsibly managed.
Strategy 3.3.3:	Achieve economic sustainability through supporting local businesses.
Strategy 3.3.4:	Advocate for and invest in infrastructure to support and future-proof the local and broader economy.
4. Our Civic Leadership: *Council as strong leaders for the community*	
Objective 4.1:	**A transparent and accountable Council**
Strategy 4.1.1:	Ensure all operations are pre-planned and executed in the best interests of the community.
Strategy 4.1.2:	Enforce good governance, risk management, and statutory compliance.
Strategy 4.1.3:	Increase awareness of Council's role in the community including the services and facilities provided.
Strategy 4.1.4:	Ensures transparent and accountable decision making for our community.
Objective 4.2:	**A strong Council that advocates for the Community**
Strategy 4.2.1:	Communicate and engage with the community regarding decision-making
Strategy 4.2.2:	Work cooperatively and appropriately with external parties to advocate for the community's best interests.
Strategy 4.2.3:	Deliver clear and effective communication.
Strategy 4.2.4:	Deliver high quality and informative customer service.
Objective 4.3:	**A resilient and sustainable Council**
Strategy 4.3.1:	Ensure policies and procedures are effective and implemented in accordance with legislative requirements and best practice principles.
Strategy 4.3.2:	Sustainably manage Council's finances, assets, and workforce.
Strategy 4.3.3:	Deliver reliable and quality services through innovation and continuous improvement.
Strategy 4.3.4:	Provide a safe and healthy working environment

In looking at how Council manages its assets into the future, it is important that Council have strong links with these objectives, to ensure that Council's asset management practices align with the goals of the community and organisation.

4.2 Integrated Planning and Reporting Framework

Strategic plans are developed in accordance with the statutory requirements of the *NSW Integrated Planning and Reporting Framework* (IPR).

The IPR outlines our commitment to building a strategic planning and reporting system that is connected, inter-dependent and outcomes focused.

Council is required to write and report on these plans in a transparent and consultative manner. Council are championing IPR as a method to improve its internal planning and external communication and engagement.

The framework is designed to give Council and the community a clear picture of:

- The long-term vision for our shire - Community Strategic Plan
- What will be delivered to get there - Delivery Program, Operational Plan, and Resourcing Strategy
- How progress towards the vision is measured - Quarterly, Annual, and End-of-Term Reporting

Strategic planning provides a clear direction, informs resource planning, and helps to ensure Council delivers on our commitments.

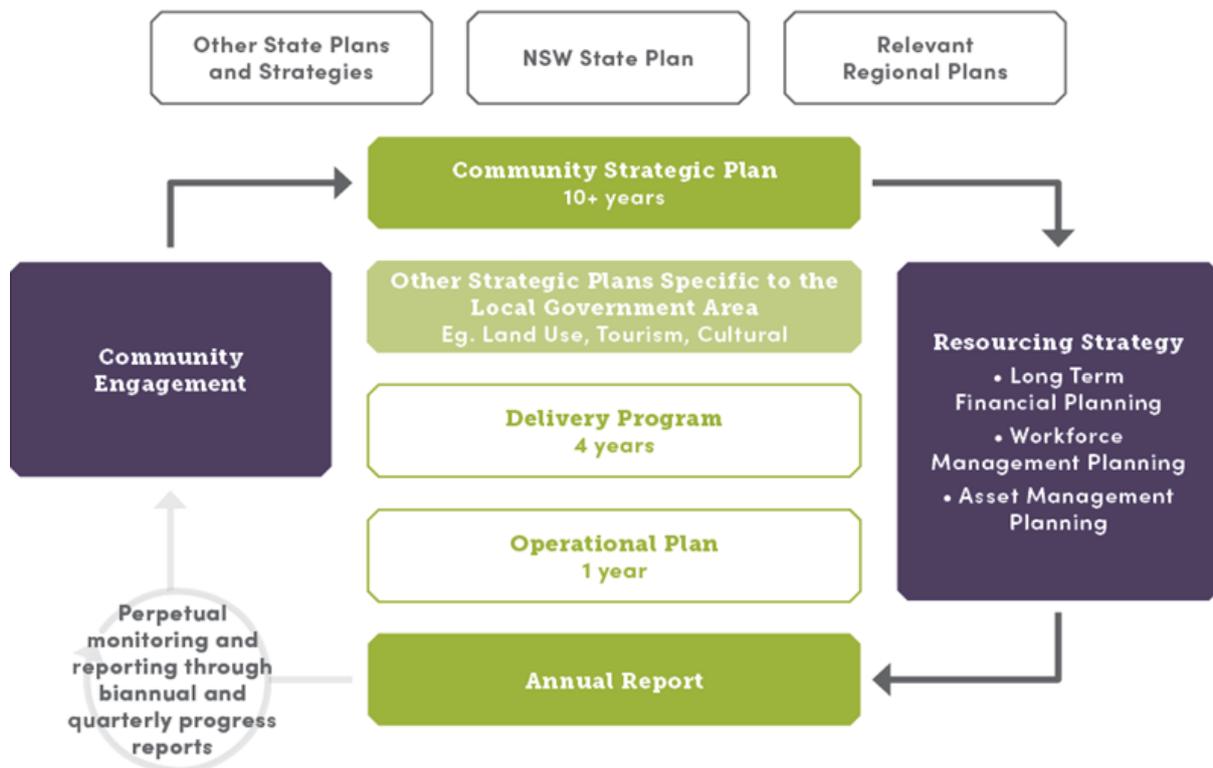Figure 3 illustrates *Integrated Planning and Reporting Framework*.

Figure 3 - Integrated Planning and Reporting Framework

4.3 Long Term Resource Planning

This *Asset Management Strategy* forms a key component of Council's Resourcing Strategy. *Asset Management Strategy* and *Long-Term Financial Plan* along with the *Workforce Plan* are the foundation of long-term resource planning. These plans work together to ensure that expectations are achievable and sustainable.

There is direct integration between *Asset Management Strategy* and the *Long-Term Financial Plan*. The *Asset Management Strategy* inform the *Long-Term Financial Plan* by identifying the amounts that are required to renew, maintain, and improve assets over their lifecycle.

The *Long-Term Financial Plan* determines how much funding is available to support assets. It incorporates knowledge of the condition of assets, and risk assessment issues, as well as the impact of reviewing and setting intervention and service levels for infrastructure.

4.4 Service Driven Asset Planning

Assets exist to enable the provision of a broad range of services for community benefit. Council's ability to effectively manage our assets has a direct impact on the quality of services enjoyed by the community.

Council is continuously looking to improve the ways that we plan our services. This is to make sure that Council's services are aligned with goals, have clear and measurable outcomes, and respond to community expectations and affordability. Council is striving to strengthen the alignment between assets and the services.

5. Organisational Roles and Responsibilities

The senior leadership is committed to asset management, and to providing the necessary resources and support so that Council can effectively implement *Asset Management Framework*,

This will be led by *Asset Management Committee*, who will oversee and ensure that there is organisational support for asset management.

5.1 Organisational Structure

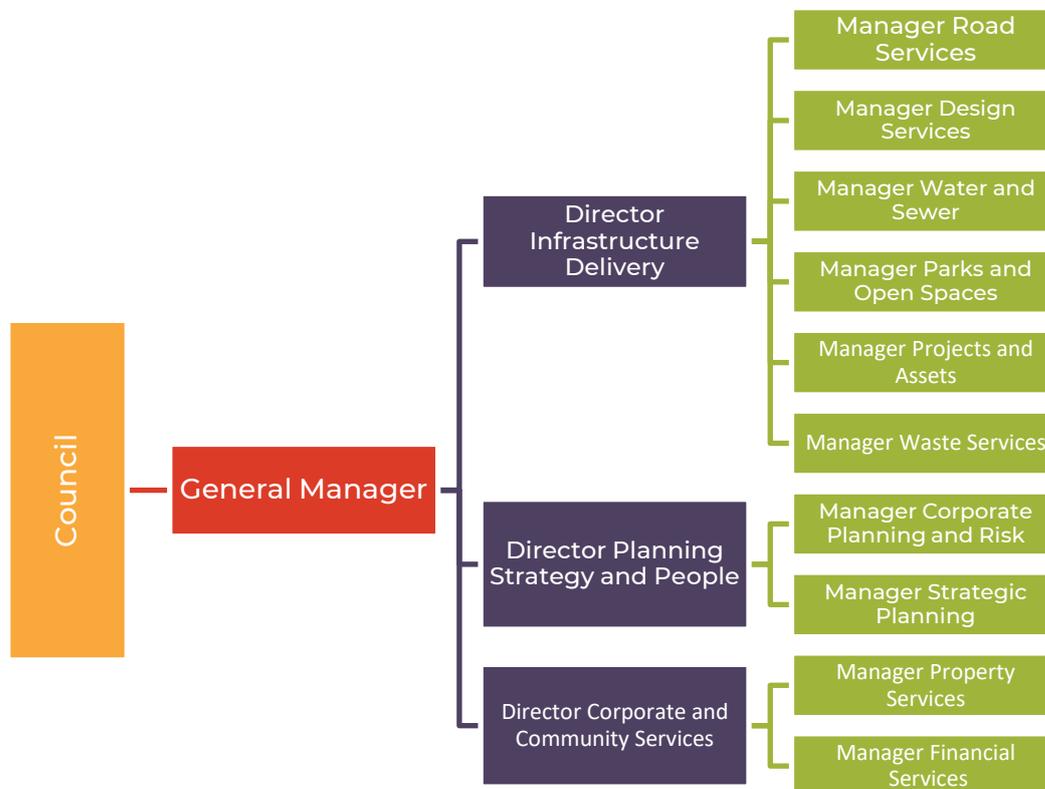Figure 4 shows organisational management structure.

Figure 4 - Organisational Structure

5.2 Roles and Responsibilities

Asset management requires a whole-of-organisation approach. The roles and responsibilities of the key stakeholders involved in managing assets are detailed in the *Asset Management Policy*.

Organisational Oversight

The Executive Management Team will ensure that there is a coordinated and integrated approach to asset management across the organisation. They will also be responsible for promoting an understanding of asset management issues across the organisation and to make sure that investment into physical infrastructure supports strategic direction.

Asset Management Committee will take responsibility for the development and implementation of the Asset Management Improvement Plan. They will regularly monitor and report on the progress of the improvement actions to the Executive Management Team.

Another key role of the Asset Management Committee will be to build awareness across the organisation of the role and importance of asset management. This includes making those people who have a role in asset lifecycle functions aware of their responsibilities.

5.3 Leadership and Culture

Building a high-performance culture and high levels of employee engagement is essential to supporting the achievement of strategic objectives and to enable Council to be sustainable.

To drive culture, Council invests in the development of people at all levels to build self-awareness and leadership capability, focusing on communication, teamwork, business improvement, and change.

Council's capacity to implement the Asset Management Strategy and framework will rely on the continued leadership, commitment, and involvement of Council's management and staff. Leadership will form the major influence in the development and application of this Asset Management Strategy together with strategic and operational continuous improvement plans.

To ensure success and a positive change in asset management practices, leadership will be paramount across the entire organisation.

The General Manager, management team, and all leaders aim to champion ongoing commitment to sustainable asset management in their actions and messages to staff, as well as effective mentoring.

5.4 Training and Developing People

To ensure that Council's asset management capabilities are best appropriate practice, Council is committed to:

- Clearly defining asset management roles, and continuously recruit staff accordingly.
- Continuously encourage innovation to improve the way Council manage assets.
- Reviewing skills and development needs in asset management related areas as part of employee performance planning and providing appropriate development opportunities.
- Providing relevant staff with appropriate briefings in relevant asset and financial management principles, practices, and processes.
- Providing and allocating resources for training to support asset management across the organisation.

6. Changing Shire

6.1 External Challenges

Local, national, and global trends all have the potential to impact the future outlook of the Shire. Council needs to understand these trends, harness their benefits, and adaptively respond to preserve the health, vibrancy, resiliency of Narrabri.

Council have identified a number of key areas with the potential to significantly impact the ability to meet the community's needs. These challenges also provide opportunities which Council can leverage to be advantageous and include:

Population Growth and Demographic Changes	Aging Infrastructure	Rising Cost of Services
▪ According to the projections calculated by the Department of Planning and Environment, the population of the Narrabri Shire Council local government area will decrease over the next 20 years. However, a number of projects identified by Council may increase the population through construction workers and their families and a number of ongoing jobs following construction.	One of the biggest financial challenges facing us is the cost of renewing ageing infrastructure. Assets have been built and developed in the past. Many years on, this period of development has created a large peak in the need to invest in asset maintenance and renewal.	Cost increases to items such as electricity, petrol, and raw materials impact all impact on ability provide value for money services. For Council, this occurs within an expectation of doing more with less or improving efficiency to ensure more can be achieved with less money.

What does this mean for asset management and service delivery?

Challenges in maintaining revenue raising capacity in the future to fund the care, renewal, and improvement of the infrastructure. Change in the age structure of the population will mean it is critical for us to plan age-based facilities and services.	There is a critical need to introduce systems and processes to ensure that spending on existing assets is optimised. As Council assets continue to age, more investment in maintenance and renewal expenditure will be required to ensure that the current levels of service enjoyed by the community continue to be delivered.	Council will need to aim to continually balance the affordable provision of services against the needs of the community.

Political and Regulatory Influence	Natural Environment
Council operates in a complex legislative and policy environment that directly influences the way we do business: ● There is an expectation that Council will continue to deliver services, even when State and Federal government funding is withdrawn ● The rate peg means Councils ability to control source revenue is constrained ● Compliance and reporting requirements are increasing	Council is already experiencing the impacts of climate change. In the future, we can expect; increased vulnerability to bushfire; storm damage to infrastructure; decreased water quality and security of water supply; reduced summer outdoor activities due to higher temperatures.

What does this mean for asset management and service delivery?

Council needs to meet statutory obligations while being conscious of maintaining affordability and financial sustainability. This requires good decisions to be made to manage competing funding demands across a broad range of projects, programs, and services.	Council will need to recognise climate change risks and examine the vulnerability of the asset network. If and when disasters occur, Council will need to focus or energy and resources on supporting the recovery of the community. Council assets will need to be rebuilt to a higher standard in the expectation that risks will only increase in the future. There may also be increased expectation for leadership from Council to make use of sustainable energy sources and to provide assets that are environmentally efficient.

6.2 Internal Challenges

Council asset base will continue to require appropriate funding to ensure that service levels are maintained. In addition, Council asset management processes and procedures, will require continual refinement and updating to ensure they provide the necessary support to staff to manage the assets in line with best practice principles.

6.3 Resilience in Challenging Times

Council community infrastructure assets are essential to the delivery of basic public services and even more so in changing urban landscapes.

Council services face a multitude of risks, whether it is from poor planning, climate change, or public health crises such as the ongoing COVID-19 pandemic.

Good asset management lends itself to sound fiscal management by supporting long term financial sustainability and ultimately ensuring that Council investment into Council assets will adequately sere present and future generations.

Council *Asset Management Framework*, including the systems, tools, and processes we use, means that we are well positioned to act when needed.

As Council asset management proficiency continues to improve so will the resilience of Council assets and services to future threats and hazards.

7. Risk

7.1 Risk Management

Effectively managing risk is a crucial aspect of asset management and ensures that Council can both protect and enhance the value of community assets.

All risk management activities in relation to Council assets are undertaken consistent with Council *Risk Management Framework*.

By integrating risk management into Council's asset management planning processes, Council can:

- Proactively mitigate risk through robust up-front planning.
- Identify additional areas of risk exposure (reducing uncertainty).
- Develop long-term strategies to minimise impact whilst driving innovation.
- Make informed decisions regarding acceptable levels of risk.

Council maintains a corporate risk register of all significant strategic and operational risks that may impact how Council performs as an organisation.

Elements of the *Asset Management Framework* form key controls and treatments within the corporate risk register.

Asset Management Risk Register

Within each of the *Asset Management Plans*, an assessment of the critical risks associated with Council's infrastructure and associated service delivery. The risk assessment process will be consistent with the *Risk Management Framework*, with each identified risk including:

- A risk statements.
- Causes and the likelihood of them occurring.
- Potential consequences/impacts.
- Control measures (including owner and current effectiveness).
- Initial risk rating (based on existing controls in place).
- Treatments (including links to improvement plans, owner, and timeframes).
- Residual risk rating (based on completed risk treatments).

This process will build upon the elements within the corporate risk register related to asset management, by identifying specific risks associated with assets and asset planning processes.

7.2 Business Continuity

Council business continuity plans set out to:

- Re-establish services and operations as quickly and efficiently as following a significant interruption or loss of services or facilities.
- Minimise the impact of service disruption on the community and staff.
- Implement systematic and tested procedures to maintain essential services throughout the recovery period.

Asset management plays a key role as part of the business continuity plan. Key functions include:

- In consultation with the relevant professionals, be responsible for the validating of all decisions concerning the damaged assets. This includes securing the site, safety and access control to the site, and documentation of all these activities.
- In consultation with the Manager Property, be responsible for locating and securing interim office accommodation and services for those affected by the incident.
- Working with the emergency service authorities and personnel to conduct an impact assessment of the disaster site once cleared by the emergency services.
- Organising all contractual services such as trades, maintenance, cleaning restoration services and other services as needed for all premises used during the emergency.

8. Councils Asset Management Story

A key element of this Asset Management Strategy is to review the current status of asset management practices in order to identify key gaps and opportunities for improvement.

8.1 Asset Management Maturity

Asset management maturity is the level or ability to achieve best contemporary asset management practices.

Council is guided by three recognised standards as benchmarks for asset management best practice:

1. ISO55000:2014. An international standard that provides an overview of principles, terminology, and definitions.
2. International Infrastructure Management Manual (IIMM) that provides guidance on how to implement ISO55000.
3. National Asset Management Assessment Framework (NAMAF), the Australian framework used to measure local government asset management capability and maturity.

Council use NAMAF to measure asset management maturity. The framework is a self-assessment against 11 elements (refer to **Appendix 2**). Council is not seeking ISO accreditation but will use this standard as a guide progress towards good practice.

The current state of maturity is approaching core capability, **with a score of 731 out of 1,100.**

The figure below shows how Council scores on each of the maturity elements and the improvement that is anticipated to be made as Council progressively implement this strategy.

Figure 5 - Asset Management Maturity

8.2 Council's Goal

In moving forward, Council desire greater consistency and improved skills with respect to the asset management practices.

The goal is to reach core maturity and progress towards advanced capability over the life of this strategy. Council will assess maturity each year to track and report on progress.

Reaching a 'Core' level of asset management maturity will mean that quality systems, processes, and data will support the development of long-term cash flow predictions and will drive decision making.

Council will assess maturity each year to track and report on the progress Council are making towards achieving the goal.

9. Council's Strategy

9.1 Guiding Principles

To align asset management practices to the community's priorities and improve them to cope with the future challenges we are facing, Council is committed to making all decisions relating to assets in accordance with asset management principles.

- **Appropriate assets:** Assets will be accessible, safe, and suitable for community use.
- **Community benefit:** Council will innovatively use its asset base to support the social, cultural, and economic wellbeing of the community.
- **Service delivery:** Asset planning will be informed by community need and affordable levels of service.
- **Informed decision making:** Council will ensure all decisions incorporate a life cycle approach to asset management while meting legislative requirements and managing risks.
- **Financial sustainability:** Council will ensure that present needs are provided for whilst sustaining resources for the benefit of current and future generations.
- **Environmental sustainability:** Assets will be planned and developed to incorporate climate resiliency and mitigate environmental impact.
- **Good Practice:** Council will demonstrate transparent, responsible management processes to align with accepted best practice where all employees take an integral part in the overall management of assets.

9.2 Asset Management Objectives

Using asset management principles as a basis and considering current state of asset management Council have established the following asset management objectives.

These objectives set out the results Council need to achieve to progress its asset management capability and realise value from assets.

1	Appropriate Assets
1.1	Council will provide assets that meet agreed levels of service in terms of function (including safety and accessibility), condition, and capacity by: • Conducting regular performance audits for Council assets consistent with their criticality. • Delivering appropriate and affordable asset maintenance, renewal, improvement programs.

Actions to Support   *Link to Strategic Directions*

- *Develop a program to conduct regular condition inspections of assets*
- *Preparation of a long-term capital works program to inform planning of the Annual Budget*

Civic Leadership   **Economy**

2 Community Benefit

2.1 We will maximise the value and benefit that asset brings to the community through:

- Providing fit-for-purpose facilities and infrastructure that provide a foundation for delivering quality services and programs.
- Continuing to work with community to understand their needs and expectations.

Actions to Support	*Link to Our Strategic Directions*	
▪ *Incorporate direct community consultation/engagement in the future review/update of current Service Plans.*	Society	Civic Leadership

3 Service Delivery

3.1 Council will manage assets with a focus on achieving community outcomes through connecting the required purpose and performance of assets to strategic direction.

3.2 Council will measure current performance and future asset needs based on service requirements, by:

- Ensuring assets are clearly linked to the services they support.
- Having levels of service for assets based on community needs and expectations balanced against what they are willing to pay.
- Engaging the community in decision making to reflect their needs and define value.
- Measuring and reporting on the performance of assets.

Actions to Support	*Link to Our Strategic Directions*	
▪ *Enhance current Service Plans so that they have a long-term focus that assess future resource needs and provide input to the Long Term Financial Plan*	Society	Civic Leadership

4 Informed Decision Making

4.1 Council will collect and maintain quality data on assets, that is:

- Consistent, appropriate, and current.
- Regularly reviewed for accuracy.
- Made widely available for informing decisions on Council assets and services.

4.2 Council will maintain an information system to store and analyse asset data and make resultant information available.

Actions to Support	*Link to Our Strategic Directions*
▪ *Complete a comprehensive data health check to measure the accuracy and completeness of Council's existing asset data.* ▪ *Consolidate and transfer current disparate sources of asset information into our centralised asset register.*	Civic Leadership

| **5** | **Financial Sustainability** |

5.1 Council will develop long term plans for our assets that seek to optimise asset performance and value, by:

- Preparing and maintaining Asset Management Plans.
- Adopting lowest whole-of-life cost solutions to realise value from assets
- Taking account of the full costs of holding, using, and disposing of assets throughout their life cycles.

5.2 Council will ensure long-term asset planning is financially sustainable by integrating the outcomes of asset management planning into the Long-Term Financial Plan.

Actions to Support	*Link to Our Strategic Directions*
▪ *Review and update existing Asset Management Plans for all major infrastructure asset classes.* ▪ *Develop and embed a capital works evaluation process driven by strategic directions, affordability and considers lifecycle costs.*	**Economy** **Civic Leadership**

| **6** | **Environmental Sustainability** |

6.1 Council will incorporate consideration of climate change into our asset management thinking, considering:

- Ways Council can help address impact through the ways Council plan and manage our assets
- How to manage the effects climate change will have on current assets
- How to plan for future assets to be more adaptable to climate change.

Actions to Support	*Link to Our Strategic Directions*
▪ *Investigate opportunities to increase energy efficiencies at Council facilities.*	**Environment**

7	Good Practice

7.1 Council will establish and implement an Asset Management Framework, which will:

- Comply with relevant legislation, regulations, standards, and guidelines.
- Integrate asset management processes with functional management processes.

7.2 Council will commit to providing leadership support and adequate resourcing for asset management, through:

- Having senior leadership commitment.
- Maintaining clearly defined roles, responsibilities relation to asset lifecycle functions.
- Ensuring that employees are supported and are provided with necessary resources.

Actions to Support	*Link to Our Strategic Directions*

- *Re-establish our Asset Management Committee*
- *Prepare a roles and responsibilities matrix for lifecycle functions.*
- *Develop a resourcing strategy to determine the scale of resources competencies required to appropriately manage assets.*

Civic Leadership

9.3 Asset Management Improvement Roadmap

Council have prepared a detailed improvement plan to supplement this *Asset Management Strategy*. This is shown in **Appendix 1**.

An improvement roadmap describes how Council will continue to improve asset maturity for each of the eleven core elements of the *National Asset Maturity Framework* to reach core maturity.

The first phase will lay the foundation by committing us to achieving desired target state. Phase two will focus on improving systems and processes to support decision-making and enhanced capability. The final phase will embed service excellence and sustainability of practice.

Implementing the Improvement Roadmap

The Improvement Roadmap provides what is required to ensure the success of this *Asset Management Strategy*.

Actions will be delivered either through Business-as-Usual improvements or project resources where cost estimate and benefits to achieve these improvements will be developed through annual budget process.

Effective asset management requires a whole of organisation approach. This strategy and improvement roadmap will be driven by Asset Management Committee.

10. Monitoring and Review

10.1 Reporting

Reporting on service levels and other performance measures will be undertaken as part of the *Annual Report*.

The progress of implementing the improvement roadmap will be monitored and reported to Executive Management Team on a regular basis.

10.2 Review

This *Asset Management Strategy* is a long-term vision with a 4-year focus. It will be reviewed and refreshed following Council elections in accordance with the *Local Government Act 1993*.

Intermediary reviews of the *Asset Management Strategy* may be undertaken from time to time as improvements are implemented or major financial decisions are made. This is to make sure that it retains consistency with strategic directions. having regard to:

- Available financial resources.
- Long term works programs that are reviewed annually.
- The consideration of any external factors that are likely to influence the *Asset Management Strategy*.

Appendix 1: Asset Management Improvement Program

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
1	**Strategic Long-Term Plan**									
1.01	Implement training/formal inductions to introduce Council's Integrated Planning and Reporting Framework to managers and staff.	Human Resources, Governance and Risk	**Medium**	Internal		✔	✔			
1.05	Complete Asset Management Plans for Transport, Buildings and Other Structures, Water, Sewer, and Parks and Open Space asset classes and incorporate financial forecasts into the Long-Term Financial Plan. Develop a long-term capital works program for infrastructure assets to inform the Long-Term Financial Plan.	Infrastructure Delivery, Finance	**High**	External support	✔	✔				Preparation of AMPs in progress
1.06	Document processes covering the development, review, and update of its Long-Term Financial Plan. The Long-Term Financial Plan should be reviewed annually.	Projects and Assets, Finance	**Medium**	Internal		✔				Not started

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
2	**Annual Budget**									
2.01	• Prepare and adopt Asset Management Plans for all infrastructure asset classes • Strengthen integration with other corporate planning documents such as the Delivery Plan and Operational Plan so that the Annual Budget is aligned with Council's strategic objectives. • Prepare a long-term capital works program to inform planning of the Annual Budget	Finance, Infrastructure Delivery	**High**	Internal with external support	✔	✔				Preparation of AMPs in progress
4	**Asset Management Policy**									
4.01	• Review and update the existing Asset Management Policy to follow best practice to outline Council's asset vision, objectives, and asset management framework. • Have updated AM Policy adopted by Council.	Infrastructure Delivery	**High**	External support	✔					In progress
5	**Asset Management Strategy**									
5.01	Review and update current AM Strategy with organisational vision for AM, status, desired future state, and improvement plan.	Infrastructure Delivery	**High**	External support	✔					In progress

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
6	**Asset Management Plans**									
6.01	● Review and update AMPs for all major infrastructure asset classes. ● The structure and content of all AM Plans should follow good industry practice and guidance such as the International Infrastructure Management Manual.	Infrastructure Delivery Finance	**High**	External support	✔					In progress
6.02	Review the asset classifications within each AM Plan as they are updated so that there is consistency with the adopted infrastructure hierarchy.	Asset Services	**Medium**	Internal with external support	✔	✔				In progress
7	**Governance and Management**									
7.01	● Prepare a communication framework that outlines AM reporting and organisational engagement requirements. ● Include AM topics as part of the Councillor induction process to improve knowledge.	Governance and Risk	**Low**	Internal			✔	✔		Not started
7.02	Prepare a roles and responsibilities matrix covering all lifecycle management functions.	Infrastructure Delivery	**High**	Internal	✔	✔				Not started
7.03	Develop a resourcing strategy to determine the scale of resources (staff, equipment, systems) and levels of competencies required to appropriately manage Council's assets. This should be compared with the provision and level of expertise of existing resources.	Human Resources, Governance and Risk	**Medium**	Internal			✔	✔		Not started

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
	Improvement actions should be developed to address any identified gaps including shortfalls in the quantity or skills of staff.									
7.04	Develop and embed a Capital works and major projects evaluation process which is driven by Council Plan priorities and LTFP and includes consideration of asset lifecycle costs.	Infrastructure Delivery, Finance	**High**	Internal		✓	✓			Not started
7.05	Promote the importance and benefits of good asset management, service, and financial planning practices as opportunities arise	Asset Services	**Ongoing**	Internal	✓	✓	✓	✓	✓	In progress
7.06	Re-establish the Asset Management Committee including a review of the Terms of Reference. Ensure suitable meeting frequency is defined and adhered to.	Asset Services	**High**	Internal	✓					Not started
7.07	Prepare and implement a basic communications plan to raise awareness of asset management across the organisation.	Asset Services	**Low**	Internal			✓	✓		Not started
8	**Levels of Service**									
8.01	• Incorporate direct community consultation/engagement in the future review/update of current Service Plans. • Enhance current Service Plans so that they have a long-term focus (ideally 10 years) that assess future resource needs and	Infrastructure Delivery Governance and Risk	**Medium**	Internal		✓	✓	✓	✓	Not started

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
	provide input to the Long-Term Financial Plan									
8.02	• Review current Service Plans to ensure that current levels of service are appropriate and consider drivers such as asset function, customer requirements, strategic and corporate goals, and legislative requirements. • Document and evaluate current costs associated with current levels of service.	Infrastructure Delivery Governance and Risk	**Medium**	Internal		✔	✔	✔	✔	Not started
8.03	Include community and technical levels of service within relevant AMPs	Asset Services Governance and Risk	**Medium**	Internal				✔	✔	Not started
8.04	Technical levels of service, once developed, to be embedded into service agreements and other relevant asset management planning procedures.	Asset Services	**Medium**	Internal				✔	✔	Not started
9	**Data and Systems**									
9.01	Complete a comprehensive data health check to measure the accuracy and completeness of Council's existing asset data and develop a strategy to improve any identified gaps. Consider inventory information, unit rates for asset valuations and predictive modelling, asset condition profiles, useful life of assets, asset	Asset Services	**High**	Internal with external support	✔	✔	✔			In progress

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
	degradation profiles, point of intervention for renewal based on condition, etc.									
9.02	Consolidate and transfer current disparate sources of asset information into the centralised asset register held in TechOne.	Asset Services	**High**	Internal with external support	✔	✔	✔			Not started
9.03	● Review current asset hierarchy to ensure that it meets business needs with a focus on the parks and open space, water, and sewer asset classes.	Asset Services	**Medium**	Internal with external support		✔	✔			Not started
9.05	● Determine and report against relevant asset management performance measures as part of the overall governance framework. ● Seek to systemise benchmarking processes to enable efficient reporting.	Asset Services	**Medium**	Internal			✔	✔		Not started
9.06	Implement TechOne's Strategic Asset Management Module to generate maintenance and renewal programs and produce associated future funding needs.	Asset Services	**Medium**	Internal with external support			✔	✔	✔	Not started
9.07	Develop and document methodology for determining asset replacement and treatment unit rates.	Infrastructure Delivery	**Medium**	Internal		✔	✔			Not started

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
9.08	Develop and document the process for operations, maintenance, renewal, and upgrade planning.	Asset Services	**Medium**	Internal		✓	✓			Not started
10	**Skills and Processes**									
10.03	● Risk Policy and Framework to be adopted by Council. ● Review infrastructure risks as part of the update of AMPs.	Governance and Risk	**High**	Internal	✓					In progress
10.04	● Document the process followed to review and update forecast asset costs for inclusion in the Long-Term Financial Plan.	Finance, Asset Services	**Medium**	Internal		✓	✓			Not started
10.05	● Complete skills assessment for Council officers with asset management responsibilities to understand current levels of competency. ● Prepare and implement training programs as necessary to address any identified gaps to support officers in their role	Human Resources	**Medium**	Internal		✓	✓			Not started
10.06	Document the procedures used for determining useful life, remaining useful life, and calculation of depreciation.	Finance, Asset Services	**High**	Internal		✓				Not started
10.07	Document an asset handover procedure to: ● Determine the frequency and sources of data updates ● Allocate roles and responsibilities	Projects and Assets	**Medium**	Internal		✓	✓	✓		Not started

.	Task	Responsibility	Priority	Resource Type	2022	2023	2024	2025	2026	Status
	• Establish a process for reviewing incoming data for completeness and accuracy before incorporating into the asset register.									
10.08	Develop process to notify internal stakeholders responsible for maintenance, insurance, financial reporting, etc of new assets acquired through capital works or developer contributions.	Projects and Assets	Medium	Internal		✔	✔			In progress
10.09	Develop an annual State of the Assets Report to summarise asset condition, asset performance, financial sustainability options and consequences, etc.	Asset Services	Low	Internal			✔			Not started
11	Evaluation									
11.01	• Formalise an improvement plan as part of the development of the updated AM Strategy. • Update Terms of Reference for the AM Committee to ensure that responsibility for oversight and reporting on the progress of implementing the improvement plan is clearly defined.	Asset Services	High	Internal with external support	✔					AM Strategy with improvement plan In progress

Table 2 - Asset Improvement Program

Appendix 2: National Asset Management Assessment Framework

There are eleven core elements of asset management under the National Asset Management Assessment Framework (NAMAF). These elements are defined as:

Strategic Planning	Council's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy; including its capital and people.
Annual Budget	Council's budget prepared for a 12-month period. The Annual Budget outlines both the income and expenditures that are expected to be received and paid over the coming year.
Annual Report	A comprehensive report on Council's activities throughout the preceding year. Local Government annual reports are intended to give ratepayers and other interested parties information about the Council's activities and financial performance.
Asset Management Policy	A high-level document that describes how Council intends to approach asset management within the organisation.
Asset Management Strategy	A strategy for the implementation and documentation of asset management practices, plans, processes, and procedures within an organisation.
Asset Management Plans	Plans developed for the management of one or more infrastructure asset classes with a view to operating, maintaining, and renewing the class in most cost-effective manner possible, whilst providing a specific level of service
Governance and Management	A set of rules and policies designed to ensure that responsibilities within an organisation are well defined, and that the business runs smoothly. While Management are the staff in charge of authorising and delivering such rules. It is very important that Asset Management is intertwined into this framework.
Levels of Service	Defined as the service quality for a given activity. Levels of Service are often documented as a commitment to carry out a given action or actions within a specified time, or the provision of infrastructure to meet a desired level.
Data and Systems	Asset Data is qualitative and/or quantitative information used to identify and describe an asset group or group of assets. The Systems are the framework in which the data is processed and stored.
Skills and Processes	The level of skill and knowledge within the organisation regarding Asset Management, along with a set of interrelated tasks that endeavour to increase awareness and learning.
Evaluation	How Council internally evaluates and monitors its performance in Asset Management.

Table 3 - NAMAF Assessment Element

2022 Transport Asset Management Plan

Document Control

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	Date: April 2022
	Synopsis: *Lifecycle Asset Management Plan for Council's transport assets.*

CONSULTANTS DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
1.1	13/04/2022	Narrabri Shire Council	Draft
1.2	29/04/2022	Narrabri Shire Council	Draft
1.3	01/06/2022	Narrabri Shire Council	Draft

SCHEDULE OF ADOPTION

Version No.	Date	Comment	Resolution
1.2	16/05/2022	Endorsed for Public Exhibition	130/2022
1.3	28/06/2022	Adopted	

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1. EXECUTIVE SUMMARY

1.1   Purpose of the Plan

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This Asset Management Plan details information about Council's transport assets. The plan outlines the management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- Identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period; and
- Continual improvement in the management of the assets and performance monitoring.

1.2   Asset Description

Council's transport assets contribute to the community by:

- Allowing people to move safely and conveniently around and through the municipality.
- Enabling the transport of goods and services.
- Connecting people to service centres and other key destinations.
- Assist drainage of stormwater from the roadway.

The transport network comprises the following asset types:

- Sealed roads
- Unsealed roads
- Bridges
- Footpaths
- Stormwater drainage

These infrastructure assets have a significant replacement value of **$357.5 million.**

Transport Assets Condition Profile

Poor- 7%
Very Poor- 0%
Excellent- 40%
Fair- 27%
Good- 26%
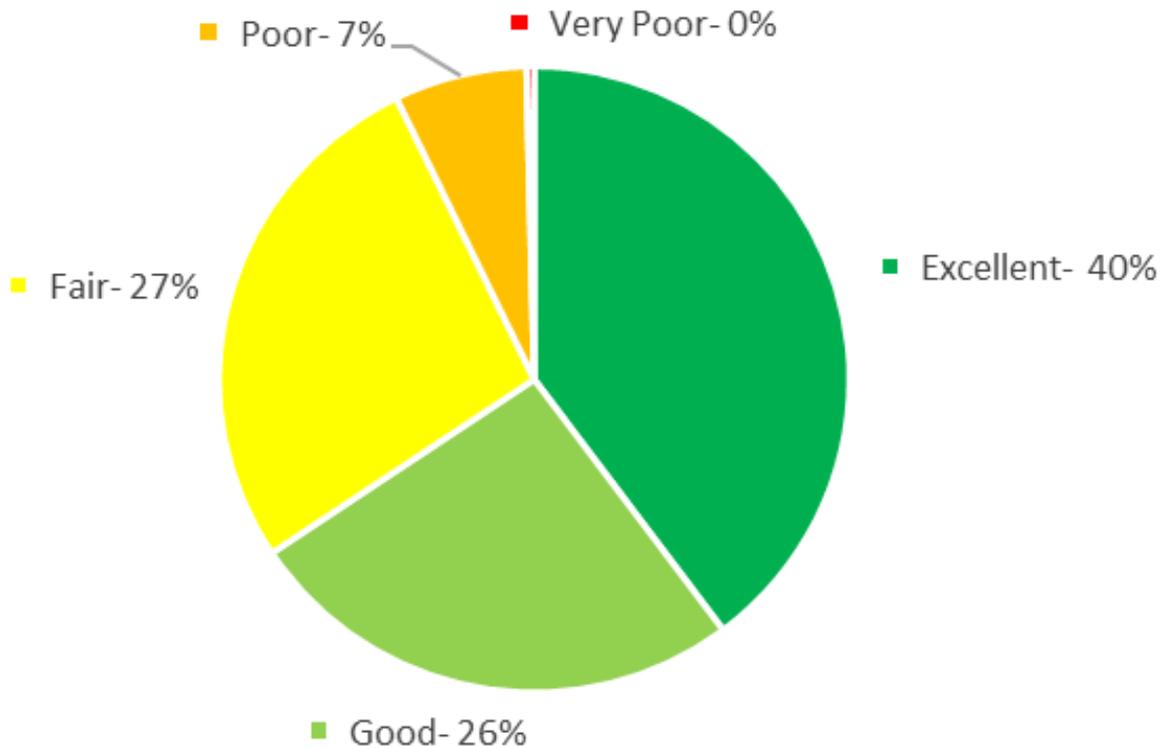
At present, almost **93%** of Council's transport assets by value are in 'Fair' or better condition.

1.3 Levels of Service

Levels of service are generally set based on legislative and compliance obligations, and historical standards that we have used in the past. To support this, we have prepared high level performance measures to monitor the effectiveness of our service delivery. This builds on the work done to prepare service plans for Transport Services.

In future, Council will undertake deliberative community engagement to validate its levels of service.

At present, management of assets, including intervention points and chosen treatment methods, is based upon:

● Available budget and resource allocations.
● Feedback from the community.
● Active monitoring of the performance of the various assets that comprise the buildings portfolio.

This Asset Management Plan has been prepared based on current knowledge of the performance of transport assets. The financial analysis undertaken indicates that Council is projected to slightly overfund current levels of service in the medium to long term, however the need to enhance knowledge of roads and footpaths through up-to-date condition assessments is required.

This Asset Management Plan, and future revisions, will inform the long-term financial planning to fund the future renewal and upgrades necessary to meet the capacity demand and levels of service.

1.4   Future Demand

The main demands for new services are created by:

- Increasing community expectations
- Council financial sustainability
- Climate change
- Increasing costs of materials and services
- Ageing infrastructure
- Increased heavy freight on our local roads

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

Demand management practices include:

- Formal planning and community consultation to identify where demand is greatest and of highest priority.
- Regular inspection of assets to ensure they remain in good condition and are fit for purpose while they are in service.
- Advocacy efforts to attract external funding through Government Grants to increase the available sources of funding for upgrade and new capital works.

1.5   Lifecycle Management Plan

Lifecycle planning describes the approach to maintaining an asset from construction to disposal. It involves the prediction of future performance of an asset, or a group of assets, based on investment scenarios and maintenance strategies.

Council's current approach to managing and operating transport assets is transitioning to a more proactive approach with continual improvement to its knowledge on performance, changing requirements, and service demands.

Council is always striving to improve its approach to lifecycle management to make sure that it delivers on its service commitments in the most cost effective and efficient manner.

1.6 Financial Summary

The projected outlays necessary to provide the services covered by this plan includes operations, maintenance, renewal, upgrade, and new assets over the 10-year planning period is **$165,575,490** or **$16,557,549** on average per year.

1.6.1 What funding sources are available

Estimated available funding for the next ten (10) financial years is **$170,400,282** or **$17,040,028** on average per year as per the Long-Term Financial Plan. This is **103%** of the cost to sustain the current level of service at the lowest lifecycle cost. This funding profile has been derived to current financial information to Council and has been derived by extrapolating from Council's 2021/22 Capital Works Budget and draft 10-year Capital Works Program.

Allocated funding contained in Council's Long Term Financial Plan leaves a surplus of **$482,479**

on average per year of the projected expenditure required to provide the services in this Asset Management Plan.
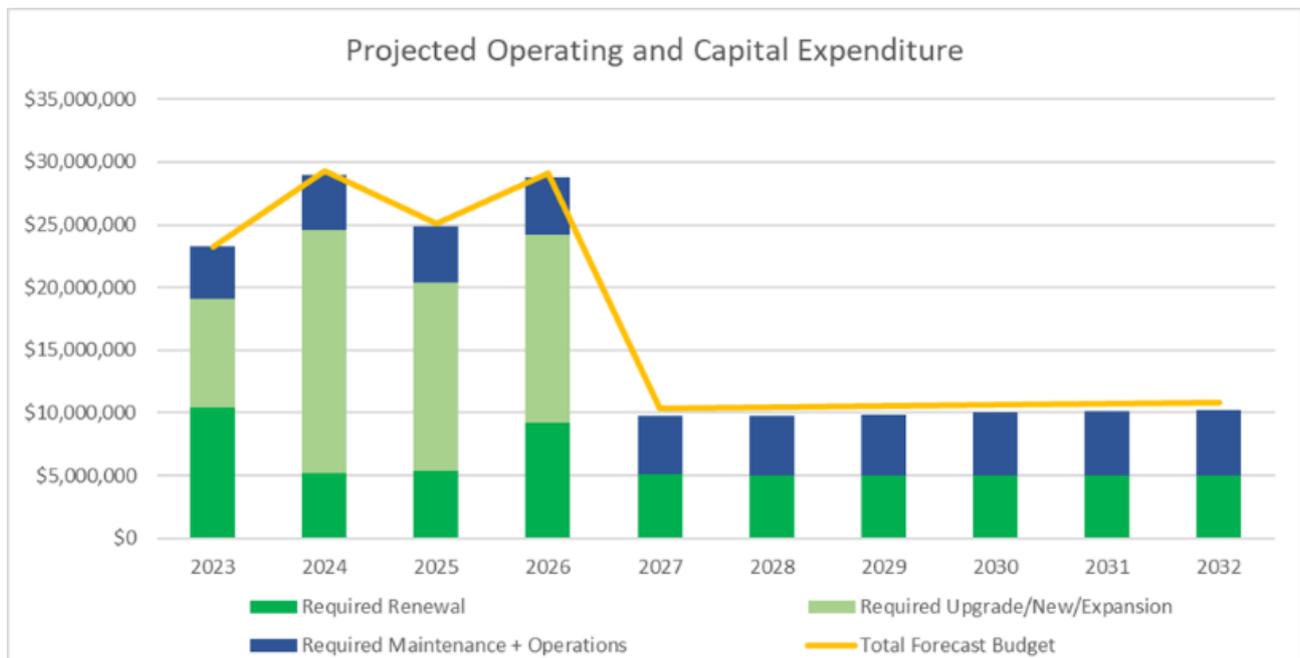
The forecast projections for lifecycle costs and budget are based on a combination of information that has been determined as being reliable and other broad-based assumptions where data confidence is low.

The data and processes improve, the financial forecasts to renew, improve, and maintain transport assets will be refined and will be used to inform future versions of this Asset Management Plan and the Long-Term Financial Plan.

While it appears that Council is overspending on its transport assets, any major changes to funding levels should only occur once there is a better understanding both how the portfolio is performing through better condition information, and other long-term improvements that are necessary to cater for increasing demand.

1.6.2 What Council will do with constrained funding

Council plans to provide the following related services:

- Operation, maintenance, renewal and upgrade of local sealed and unsealed roads, kerb and gutter, footpaths, etc. to meet service levels set by Council in annual budgets
- Continue vigorous pursuit of State Government grants for roads and related assets,
- Plan asset rehabilitations to ensure that the highest priority assets are targeted for renewal each financial year. Prioritisation must be based on risk

1.6.3 What Council cannot do with constrained funding

Financial projections indicate that it is allocating sufficient funding to provide basic levels of service however this may change over time when the capture of new condition data commences in 22-23 financial year.

While minimum levels of service appear to be able to be provided, it is unable to provide the following network enhancements under the projected funding regime:

- An increased overall level of service delivered. by road and footpath assets.
- Upgrade of all identified functional deficiencies across networks.
- Sealing of unsealed roads on request.

Council will continue to work with its partners and stakeholders within the community and in Government to press for more funding to ensure it can continue to grow and service existing and newly established residents.

1.7 Risk Management

There are risks associated with providing the service and not being able to complete all identified activities and projects.

The main risks are:

- Roads deteriorating to a lesser service standard and higher risk situation.
- Damage to roads due to major storm events or increased heavy vehicle traffic.
- Personal injury or property damage due to the condition of roads and footpaths.
- Unexpected failure of critical assets.

Council will endeavour to manage these risks within available funding by continuing to implement Council's inspection, maintenance, and renewal programs to keep our roads and footpaths in a safe and serviceable condition.

1.8 Asset Management Practices

Council's Asset Management Framework provides a structured approach for the development, coordination, and control of Council activities on assets over their life cycle, and for aligning these activities with Council's vision and strategic objectives.

Council's asset management planning is supported by three key documents:

- Asset Management Policy.
- Asset Management Strategy.
- Asset Management Plans.

Systems to manage assets include:

- Finance and accounting – *TechOne Financials*
- Asset management system – TechOne Enterprise Asset Management

Assets requiring renewal/replacement are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project

1.9   Monitoring and Improvement Program

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

- Consolidating all of the transport asset related data into the Asset Management Information System so that there is a single source of truth.
- Preparing a Road Strategy to document affordable levels of service.
- Completing comprehensive condition audits of our transport assets to better understand their current performance and any underlying risks.
- Implementing functionality of our corporate Asset Management Information System support maintenance planning for transport assets and to enhance data capture and activity tracking.
- Developing a project-based ten (10) year capital works program for renewals, upgrades, and new works.

2. INTRODUCTION

2.1 Background

Narrabri Shire Council owns and manages a portfolio of transport infrastructure to support its operations and delivery of services to the community. These infrastructure assets range in age, quality, and function. Transport assets range from sealed and unsealed roads, bridges, kerb and gutter, footpaths to storm water. The management of our transport assets requires the coordination of Council's technical and operational resources.

2.2 Purpose

This Asset Management Plan outlines the required management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- Identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period.
- Continual improvement in the management of the assets and performance monitoring.

This Asset Management Plan is to be read with Council's Asset Management Policy and Asset Management Strategy along with the Community Strategic Plan, Delivery Program, and Operational Plan.

Figure 1 shows the different documents that influence and inform this Asset Management Plan.

Community Strategic Plan

↓

Delivery Program and Operational Plan

↓

Asset Management Policy

↓

Asset Management Strategy

↓

TransportAsset Management Plan

Figure 1 - Asset Management Document Relationship

The infrastructure assets covered by this asset management plan are shown in Table 1.

Asset Class	Asset Group	Quantity	Unit	Current Replacement Value ($)	Useful Life (Years)
Transport	Sealed Roads	664,592	metres	$135,321,210	20 - 90
	Unsealed Roads	1,679,195	metres	$40,672,009	30
	Formation	13,310,299	sqm	$91,785,143	
	Kerb and Gutter	127,986	metres	$34,129,744	80
	Bridges	62	No.	$38,100,304	100
	Footpaths	27,873	metres	$7,858,811	20 - 80
	Stormwater Drainage	Pits and structures - 937	No.	$9,681,566	50 - 140
		Conduits - 22,731	metres		
Total				$357,548,787	

Table 1 - Assets Covered by this Plan

The networks of transport assets are provided to the community to facilitate a; safe; convenient; and defined means for transporting people and goods around and through the municipal area.

2.3 Plan Framework

This Asset Management Plan has been prepared using good practice guidance from the ISO55000 - Asset Management standard, International Infrastructure Management Manual and the Office of

Local Government's Integrated Planning and Reporting Manual for Local Government in NSW and has been developed based on existing processes, practices, data, and standards.

Council is committed to striving towards best appropriate asset management practices and it is recognised that this Asset Management Plan will need to be updated periodically to reflect changes to management of assets.

It is intended that Council's Asset Management Plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will we be best able to ascertain Council's long-term financial needs for delivering sustainable assets and services.

2.4   Goals and Objectives of Asset Ownership

Council's goal in managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers. By achieving the most cost-effective approach, we will contribute the affordability and liability of our community, including a vibrant, growing, and efficient local economy.

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 that meet the defined levels of service.
- Identifying, assessing, and appropriately controlling risks.
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

2.5   Key Stakeholders

Assets are utilised by a broad cross-section of the community.

The stakeholders in the management of Council's transport assets are many and often their needs are wide-ranging. The relevant key stakeholders are:

- The community in general
- Residents and businesses adjoining the road network
- Pedestrians (including the very young, those with disabilities, and the elderly with somewhat limited mobility)
- Users of a range of miscellaneous smaller and lightweight vehicles such as pedal cyclists, motorised buggies, wheelchairs, prams, etc.
- Vehicle users using motorised vehicles such as trucks, buses, commercial vehicles, cars, and motorcycles
- Farmers and commercial businesspeople for haulage of grain, livestock, fruit, vegetables, grapes, firewood, general produce, etc.
- Tourists and visitors to the area
- Emergency agencies (Police, Fire, Ambulance, etc.)
- Utility agencies that utilise the road reserve for their infrastructure (gas, electricity, telecommunications)

- State and Federal Government that periodically provide support funding to assist with management of the network
- Council's Insurers.

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding.

This plan will demonstrate to the various stakeholders that Council is managing its transport related assets in a responsible manner.

3. LEVELS OF SERVICE

This section defines the level of service or performance criteria that are required and the basis of the decision behind their adoption. The levels of service support Council's strategic goals and are based on customer expectation and statutory requirements.

In developing the levels of service outlined in this Asset Management Plan, due regard has been given to the following:

Community Requirements *(Customer Expectations)*	These are the expectations of the customers/community. These expectations (quality) must be balanced with the community's ability and desire to pay (balancing risk, cost, and performance).
Strategic Goals and Objectives *(Strategic Drivers)*	The lifecycle management of assets (service offered by assets, service delivery mechanism and specific levels of service that Council wishes to achieve) will be consistent with goals and objectives stated in the Community Strategic Plan, Delivery Program, and Operational Plan.
Legislative Requirements (Mandatory Requirements)	These are the objectives and standards that must be met, set by legislation, regulations, Codes or Practice, and Council by-laws that impact the way assets are managed.
Industry Standards and Guidelines *(Operating Requirements)*	Design and construction standards and guidelines that provide the principles and minimum design standards for an asset.

Table 2 - Key Levels of Service Drivers

3.1 Customer Research and Expectations

3.1.1 Community Consultation

Council undertakes inclusive community consultation to define service levels and performance measures through the development of Council's Community Strategic Plan, the Delivery Program and Operational Plan, and Annual Budget. These discussions provide input to Council's strategic directions which are supported by the various services, projects, and programmes which we deliver.

Wherever practicable, community input is sought on appropriate aspects of planning Council's buildings by way of consultation. However, Council acknowledge that they need to do more work with our community to confirm Council's levels of service. The aim will target discussions when making decisions that influence the way that Council deliver services and manage assets.

3.1.2 Community Satisfaction

Council regularly seeks feedback from the community on its performance via a formal Customer Satisfaction Survey. This survey measures community views towards, and satisfaction with Council's services and facilities. The results from the survey conducted in both 2019 and 2021 are summarised in Table 3.

Customer Satisfaction Index	Result (Rating out of 5)	Result (Rating out of 5)
	2019	2021
Roads	2.9	2.5
Footpaths	3.3	3.3
Walkway and cycleway access	3.8	3.9
Public area access and appearance	3.5	3.5
Kerb and gutters	3.3	3.2

Table 3 - Customer Satisfaction Results

The results of the 2021 satisfaction survey indicate that the community sentiment towards management and maintenance of local roads and footpaths is poor, with a declining trend in the level of satisfaction with the road network.

Further consultation will be required to understand the nature of the community's low level of acceptance of the service standards presently delivered.

3.2   Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of Council's vision, mission, strategic directions, and strategies.

Council's vision is:

> *The Narrabri Shire will continue to be a strong and vibrant regional economic growth centre providing a quality living environment for the entire community.*

Council will continuously exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

3.3   Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

Legislation	Requirement
Local Government Act 1993	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.
Workplace Health and Safety Act 2011	Protects workers and other persons against harm to their health and safety and welfare through elimination or minimisation of risks arising from work.
Roads Act 1993	Sets out the rights for the use of public roads, confers certain road related functions on road authorities and regulates the carrying out of various activities.
Environmental Planning and Assessment Act 1997	Encourages the proper management, development, and conservation of natural and artificial resources, for the purpose of promoting the social and economic welfare of the community and a better environment.
Public Works and Procurement Act 1912	An Act to consolidate the Acts relating to Public Works; and to make provision in relation to the procurement of goods and services for New South Wales government agencies.
Civil Liability Act 2002	An Act to make provision in relation to the recovery of damages for death or personal injury caused by the fault of a person; to amend the *Legal Profession Act 1987* in relation to costs in civil claims; and for other purposes.
Disability Inclusion Act 2014	An Act relating to the accessibility of mainstream services and facilities, the promotion of community inclusion and the provision of funding, support, and services for people with disability; and for other purposes
Native Vegetation Act 2003	An Act relating to the sustainable management and conservation of native vegetation.

Table 4 - Legislative Requirements

3.4   Alignment to Services

The assets covered by this Asset Management Plan contribute and support the delivery of the following services:

Asset Type	Council Service Category	Service Description
Transport Assets	Roadway Maintenance	• Periodic maintenance grading • Surface repair and bitumen resealing • Minimisation of risk to Council and provide a safe road system
	Capital Projects Services	• Unsealed road resheeting • Bitumen resurfacing • Road rehabilitation • Bridge replacement • New asset construction
	Associated Maintenance Services	• Various tasks to address scheduled and unscheduled needs of the road system, including: • Bridge inspection and maintenance • Street sweeping • Sealed road maintenance • Concrete works • Drainage works • Signage and road furniture maintenance • Slashing and vegetation control
	Road Maintenance Council Contract	• Administration of Transport for NSW Road Maintenance Contract • Liaison with Transport for NSW and other government entities to secure work, grants, or knowledge/training.

Table 5 - Services Delivered by Assets

These services align with Council's service planning, delivery, and reporting framework.

3.5   Levels of Service

Service levels can be defined in two interconnected ways, customer levels of service and technical levels of service. These are supplemented by organisational measures which are the Community Plan, Council Plan, and the Annual Budget. Service performance results are reported through Council's Annual Reports.

Levels of service are generally set based on legislative and compliance obligations, and historical standards that we have used in the past. To support this, we have prepared high level performance measures to monitor the effectiveness of our service delivery. This builds on the work we have done to prepare our service plans for both Property Services and Airport Services.

In future, Council undertakes deliberative community engagement to validate its levels of service.

3.5.1 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the Asset Management Plan are:

Quality	How good is the service? What is the condition or quality of the service?
Function	Is it suitable for its intended purpose? Is it the right service?
Capacity/Use	Is the service over or under used? Do we need more or less of these assets?

The current and expected customer service levels are detailed in Table 6.

Organisational measures are measures of fact related to the service delivery outcome (e.g., number of occasions when service is not available, condition percentages of Very Poor, Poor/Average/Good, Very Good).

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Quality	Roads and footpaths of an appropriate condition and standard	Annual Community Satisfaction Survey	52%	To be determined
Function	A primary place of residence will have access to an all-weather road	Percentage of primary places of residence with all-weather access	To be determined	100%
Capacity/ Utilisation	Roads and footpaths will be wide enough	Percentage of new constructions which meet Council's designed standards	To be determined	100%

Table 6 - Customer Level of Service

3.6   Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Operations (Reliability, Safety, and Responsiveness)	The regular activities to provide services (e.g., inspections, roadside slashing, emergency call outs, cleansing of underground drainage pipes).
Maintenance (Reliability, Safety, and Responsiveness)	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g., pothole patching, linemarking, repairs to footpaths, etc),
Renewal *(Condition and Cost)*	The activities that return the service capability of an asset up to that which it had originally (e.g., replacement of a bridge, gravel resheeting, sealed pavement rehabilitation),
Asset Improvements *(Availability, Function, Sustainability and Capacity)*	The activities to provide a higher level of service (e.g., widening a road, sealing an existing gravel road) or a new service that did not exist previously (e.g., constructing a new road).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Table 7 shows the technical levels of service expected to be provided under this Asset Management Plan. The 'Desired' position in the table documents the position being recommended in this Asset Management Plan.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Reliability	To maintain function and serviceability of transport assets	Maintenance inspections – Percentage of routine inspections completed per annual schedule.	To be determined	To be determined
Responsiveness	Timely response to maintenance and repairs service request	Percentage of requests responded to within agreed timeframes.	To be determined	To be determined
Condition	Preserving the condition of transport assets	Percentage of condition inspections completed every 4 years.	To be determined	To be determined

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Safety	Roads and footpaths will be safe to use.	Number of public liability claims	To be determined	To be determined
		Number of reported safety related incidents per annum.	To be determined	To be determined

Table 7 - Technical Levels of Service

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time.

Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

3.6.1 Actual Levels of Service

Council recognises the importance that levels of service play in optimising the lifecycle management of infrastructure assets.

For the assets covered by this plan, Council continues to work towards achieving the required service levels in practice.

The development and monitoring of actual service level will be one of the foundations of future improvement through the asset management planning process.

In practice, Council aims to meet the following service objectives in delivering transport related services:

- Providing roads that are smooth, with users being able to travel safely, efficiently and in reasonable comfort.
- Access is always generally available for passenger vehicles and heavy transport. This does not relate to natural surface roads which may be subject to intermittent closure during periods of wet weather.
- The road system is safe with the aim of mitigating risk to users from road conditions.

4. FUTURE DEMANDS

The objective of asset management is to create, operate, maintain, rehabilitate, and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner. The Asset Management Plan must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs.

4.1 Demand Forecasts and Impact on Assets

The present position and projections for demand drivers, and their potential impacts on future service delivery and use of assets is identified and documented in the following sections.

Demand Factor	Projection	Impact on Assets
Community expectation	It is anticipated that community expectations and desire for higher asset and service standards will continue to escalate,	Our existing infrastructure may not be suitable for purpose over the longer term.
Council financial sustainability	Reduced size of grants from other tiers of government not matching required asset expenditures.	• Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. • Increased need for maintenance and repairs.
Climate change	Highly variable climate and increased frequency and intensity of extreme rainfall and storm events.	• Accelerated degradation of and reduced road and footpath life expectancy. • Increased likelihood of natural disasters. • Increased lifecycle costs.
Increasing costs	Limited revenue growth to fund increasing costs for all operations and services including asset provision and maintenance.	• Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. • Increased need for maintenance and repairs.
Ageing infrastructure	Council has a legacy whereby transport assets, based on their age profile, will require renewal or rehabilitation in the near term in order to maintain basic service levels.	Without adequate funding the declining condition of our transport assets will result in reduced levels of service and increased risk of failure.
Increased heavy freight	The general trend of the transport industry is to utilise vehicles of larger configurations (i.e., higher mass and greater length) to maximise cost efficiencies.	Larger vehicles may result in greater wear and tear on our road network resulting in accelerated deterioration of our roads.
Mining industry	Mining operations within the shire are expected to continue to expand in the future.	Increased traffic movements on our road network may result in greater wear and tear resulting in accelerated deterioration.

Demand Factor	Projection	Impact on Assets
Seasonal factors	Good grain harvests result in seasonal peaks of heavy freight traffic including cotton and grain, usually occurring from October to December. The combination of increased heavy traffic and weak pavements accelerates road deterioration.	Limited investment in resealing and gravel resheeting in recent years, weak pavements, the impact of drought and flooding, and the increase in produce being freighted by road has exposed many deficiencies in the road network.
COVID-19 Pandemic	COVID-19 has had many effects on our community and local economy including rate payer and Council income. The pandemic also has also disrupted demand and the way that the community uses our assets.	We will need to monitor the long-term impacts of the pandemic and the way we manage our roads and footpaths in response. Issues include, reduced revenue, changes in use/demand patterns, disrupted plans of work, and supply chain resilience.

Table 8 - Demand Drivers, Projections, and Impact on Services

4.2   Demand Management Strategy

Demand management is not intended to reduce the scope or standard of services provided by an asset, but rather, it is concerned with aligning demand or expectation of service provided by an asset with the available resources to ensure that genuine needs are met, and community benefit is maximised.

Demand management components may include:

Driver	Service Impact from Demand	Demand Management Activities
Increasing infrastructure needs	Pressure to expand/upgrade council's transport infrastructure network.	● Analyse the effect of larger freight vehicles on roads. ● Monitor expectations and communicate service levels against funding capacity to balance priorities for infrastructure with what is affordable to the community.
Increasing community expectations	Pressure to expand/upgrade and improve levels of service.	● Continue to seek grant funding for priority projects identified in the Community Strategic and Asset Management Plans. ● Continue to analyse the cost of providing services and the capacity to fund at current levels.

Table 9 - Demand Management Strategies

4.3   Asset Programs to Meet Demand

Any new assets will be constructed/acquired by Council to meet growth and increased demand in a sustainable manner.

Acquiring new, or upgrading existing assets, will commit the organisation to fund ongoing operations, maintenance, and renewal costs for the entire lifecycle period of required service provided from those assets.

4.4　Climate Change Adaptation Strategies

The impacts of climate change have the potential to have a significant impact on the assets that Council manages and the services that are provided.

In the context of the asset management planning process, climate change can be considered as both a future demand and a risk. How climate change will impact on assets can vary significantly depending on the location and the type of asset and services provided, as will how Council responds and manages these impacts.

As a minimum, the Council should consider both how to manage existing assets given the potential impacts of climate change and how to create resilience to climate change in any new works or acquisitions.

Opportunities that have been identified to date to manage the impacts of climate change on existing assets are shown in Table 10.

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Temperature	Higher maximum temperatures	Decreased lifespan of road surface treatments	Investigate alternative material choices to maximise useful life or road assets.
Storm intensity	Increased rainfall intensity during rainfall events	Flooding and decreased road pavement performance due to water ingress	● Maintenance of road surface to prevent water ingress to pavement ● Emergency management plans in place to respond and recover from natural disasters.

Table 10 - Managing the Impact of Climate Change on Assets

The way in which Council constructs new assets should recognise that there is opportunity to build in resilience to the impacts of climate change. Building resilience has a number of benefits including:

- Assets will be able to withstand the impacts of climate change.
- Services can be sustained.
- Assets that can endure the impacts of climate change may potentially lower the life-cycle cost and reduce their carbon footprint.
- Potentially increasing asset life and protecting financial investment returns.

Table 11 summarises some asset climate change resilience opportunities.

New Asset Description	Climate Change Impact These Assets?	Build Resilience in New Works
Transport assets	Higher maximum temperatures	All materials to be reviewed to ensure performance is in line with requirements, with recycled products prioritised.
Transport assets	Increased rainfall intensity	● All materials to be reviewed to ensure performance is in line with requirements with recycled products prioritised.

New Asset Description	Climate Change Impact These Assets?	Build Resilience in New Works
		● Upgrades to be sensitive to the ongoing requirement to limit impacts of storm events.

Table 11 - Building Asset Resilience To Climate Change

5. LIFECYCLE MANAGEMEN PLAN

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

5.1 Background Data

Physical Parameters

The assets covered by this Asset Management Plan are shown in Table 1.

Council's transport asset portfolio has a current replacement cost of **$357.5 million** as of 30 June 2021.

The road network infrastructure for which Council is responsible is extensive and includes:

- **2,343 km** of roads (664 km sealed and 1,679 km unsealed).
- **27.8 km** of footpaths and walking tracks.
- **128 km** of kerb and gutter.
- **62** bridges and major culverts.
- **22.7 km** of stormwater conduits (e.g., underground pipes and minor culverts) and 937 stormwater pits and other structures.

Council's transport assets are located throughout an area of approximately 13,000 sq. km and various operating environments. Rainfall varies between seasons from drought to floods, and in intensity and duration between areas. Subgrades and pavement materials vary in quality with poorer quality black soil predominant in the western areas of the shire. Traffic types vary, including heavy freight vehicles, agricultural plant, and light vehicles in and between urban areas. Seasonal variations occur in heavy vehicle use and consequent damage to roads.

5.1.1 Functional Hierarchy

Council assets are classified according to a hierarchy in terms of their specific function, demand, capacity, use patterns, and potential risk.

Council's hierarchy or classification system for Council's road network is detailed below.

Classification	Functional Definition
Regional Roads	Roads of regional significance forming principal avenues of communication.
Collector Roads	Through roads that form an avenue of communication for movements between important centres, key towns or are of an arterial nature.
Local Access Roads	Low volumes of predominantly local traffic or town streets.
Natural Surface Roads	Low volume farm access roads. These are not regularly maintained and are often dry weather use only.

Table 12 - Asset Functional Hierarchy: Transport Assets

Council's road hierarchy breaks the network down into asset classes based on the importance of the road. These are State Roads, Regional Roads, Collector Roads, and Local Access Roads (including town streets) and Natural Surface Roads.

Transport for NSW has responsibility for all of State Roads (e.g., Newell Highway, Kamilaroi Highway, etc). Council is responsible for Regional Roads, Collector Roads, Local Access Roads, and Natural Surface Roads.

The Roads Hierarchy assists Council with asset planning, financial reporting, and service level delivery.

Council is in the process of preparing a Road Strategy which aims to define the levels of service and standards that will be delivered based on projected funding profiles. It is anticipated that the current road hierarchy will be reviewed and updated to include additional road classifications. The aim is to directly relate levels of service to the road hierarchy so that higher standards of road maintenance and priority are given to roads based on their importance.

State Roads are fully funded by the State Government. Council receives a subsidy from Transport for NSW for its Regional Roads. Council funds all other roads from a combination of federal grants and its own general fund.

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Deficiencies in Council's service performance are identified by evaluating performance against levels of service and evaluating feedback and information from service requests, field inspections, and community consultation. Known services deficiencies are outlined, in general terms in Table 13.

Location	Service Deficiency
Unsealed road network	● Many unsealed roads lack adequate pavement or drainage to shed water - formations are worn low with centre rutting, poor cross falls, no gravel, poor quality materials, windrows/silt/vegetation blocking drainage, etc. ● Most unsealed roads are usually only "maintenance graded" by a grader only. This treatment is superficial unless done when pavement moisture content is optimal. Proper periodic maintenance grading using a grader, water cart and roller combination and gravelling is rarely employed except in cases of flood restoration works. The situation is exacerbated by the use of marginal gravel materials. ● The normal operating speed of motor vehicles including heavy vehicles can fall significantly on roads affected by wet weather and/or seasonal heavy traffic (with dust problems when dry).
Sealed road network	● In recent years, sealed roads have suffered from insufficient bitumen sealing. As a result, sealed surfaces are often porous leading to more potholes and surface failures.
Footpaths	● Footpaths are generally in a reasonable condition with attention required to address displacements, cracking, etc.
Kerb and Gutter	● Kerb and channel assets are prone to the damage that can result from the adjacent pavement conditions, seasonal influences, heavy transport crossing and parking adjacent and passage of waste vehicles.
Bridges	● Council has aged timber and timber/steel truss bridges still requiring replacement.
Stormwater Drainage	● Deficiencies in the stormwater system in the urban areas include small lintels, under capacity, pipe sizes and flat grades. This causes excessive ponding to occur, weakening road pavements and creating inconvenience to residents.

Table 13 - Known Service Performance Deficiencies

Other issues facing the road transport network include:

- Roadmaking material availability is a primary issue with a lack of readily available materials in the Western parts of the Shire, which when coupled with poor materials on which to form and construct roads, makes for a high-cost maintenance and construction regime.
- Gravel quality is typically poor and reasonable gravel deposits are scarce. The gravel used is under strength and susceptible to large strength variations with changes in moisture content.
- The more remote roads from the Shire hub incur substantial cost penalties for delivery and establishment works to undertake works on the roads.
- Subsoil conditions are poor with expansive silts and clays dominating.
- Longitudinal grades are flat and do not promote the efficient draining of surface water.
- Overloading of vehicles occurs causing further distress to weak road pavements.

Asset Condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for strategic planning of Council's budget.

Council measures the condition of its assets using a standardised 1 to 5 grading system.

A summary of the condition rating scale used for the assets covered by this Asset Management Plan is detailed in Table 14. Council's condition grading system follows good practice guidance as provided by various industry standards including the *International Infrastructure Management Manual.*

Condition data for Council's transport assets is recorded in its asset register and is used for renewal modelling, capital works planning, and financial reporting.

Score	Condition Rating	OLG Condition Category	Generalised Description of Asset Condition
1	Very Good	Excellent/ Very Good	Planned maintenance schedule only
2	Good	Good	Minor maintenance required, planned maintenance schedule
3	Fair	Satisfactory	Significant maintenance required
4	Poor	Poor	Significant renewal/rehabilitation required
5	Very Poor	Very Poor	Physically unsound and/or beyond rehabilitation.

Table 14 - Condition Rating System

The following figure(s) provide an overview of the condition of Council's transport infrastructure taken from the last condition audit completed in 2018.
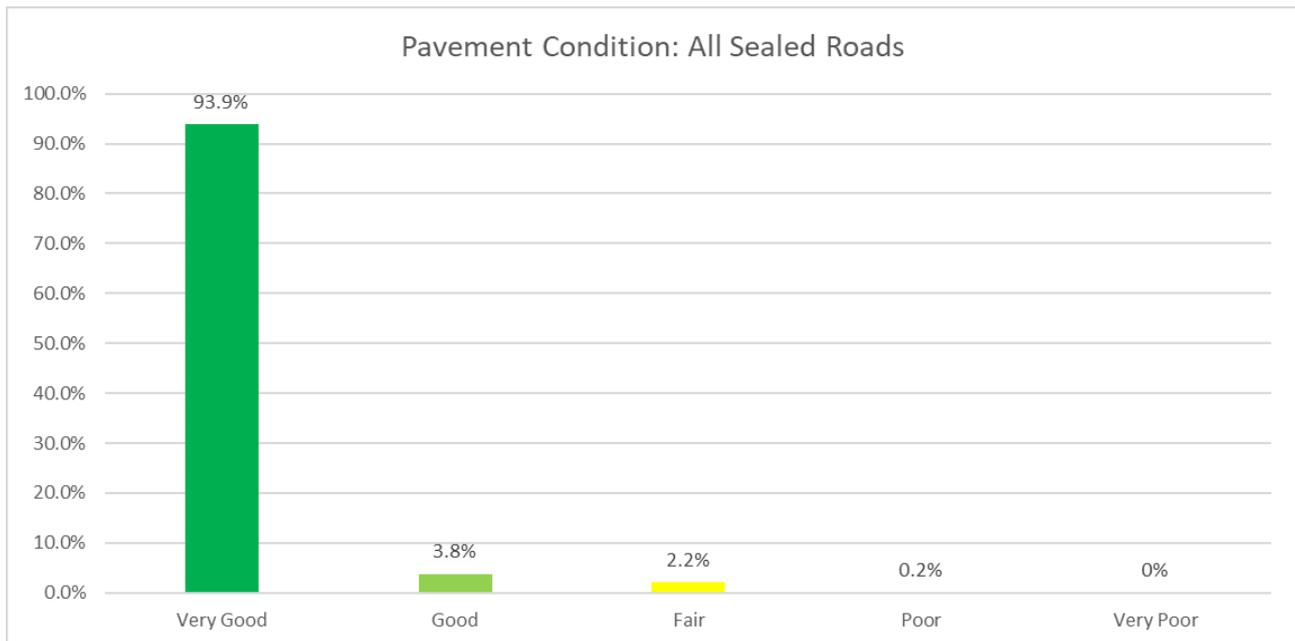

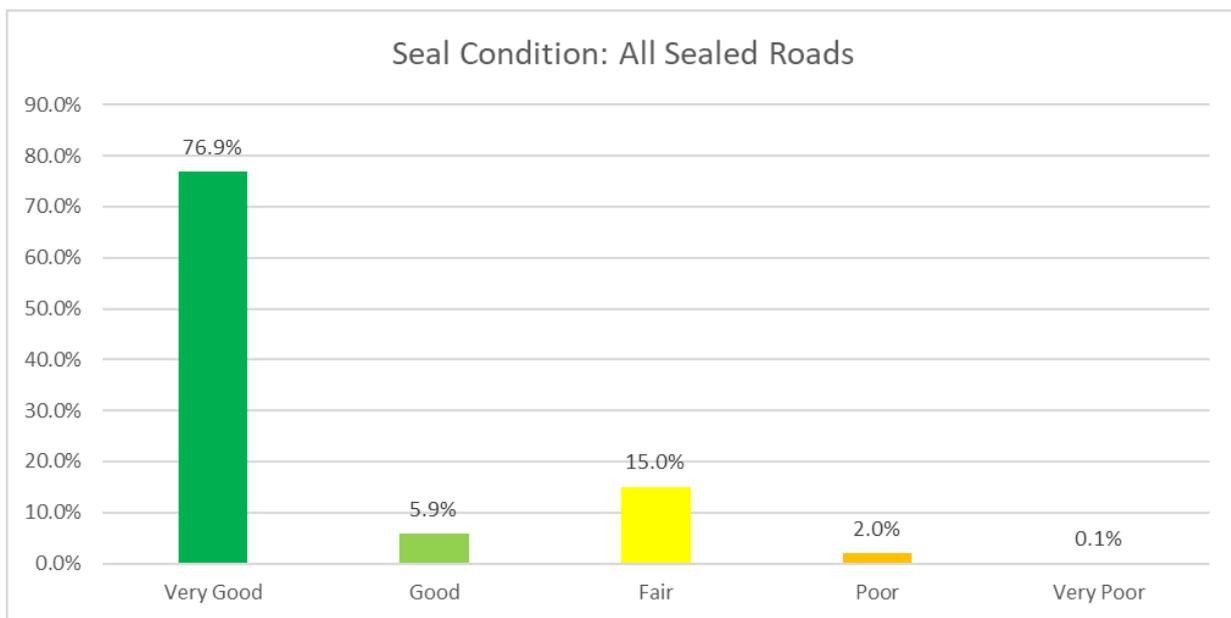*Figure 2 – Condition Profile: All Sealed Road Pavements*

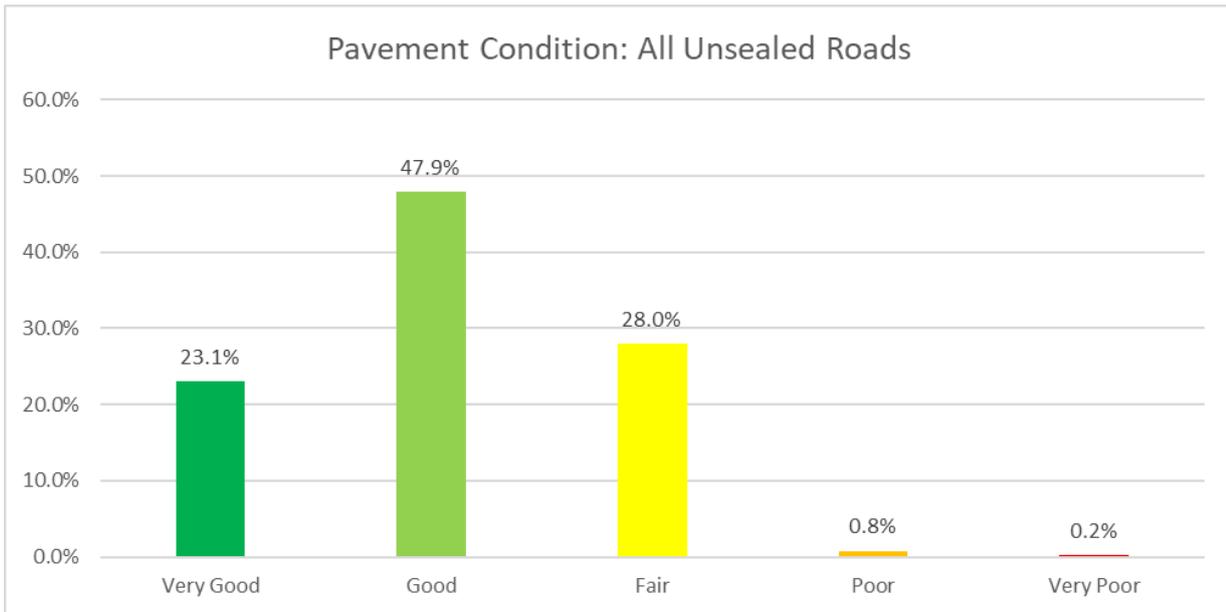*Figure 3 - Condition Profile: All Sealed Surfaces*

Pavement Condition: All Unsealed Roads

Figure 4 – Condition Profile: All Unsealed Road Pavements

What does this mean?

The condition profiles shown above for Council's sealed and unsealed road networks requires further validation to verify that the data gathered and analysed in 2018 is accurate and reflective of actual performance.

Discussions with Council's operational staff suggest that the sealed rural road network is in distress, with considerable patching and edge break restoration work being required along with a high reseal demand rate. Many road failures are prematurely caused by weak gravels, poor pavement design, and increased loading from heavy vehicles.

Anecdotal commentary suggests that the road network could be described as being in average or 'Fair' condition. Council should verify the accuracy of the condition of its roads to determine if the measured condition is reflective of asset performance prior to making any major changes to how funding is invested in this network.
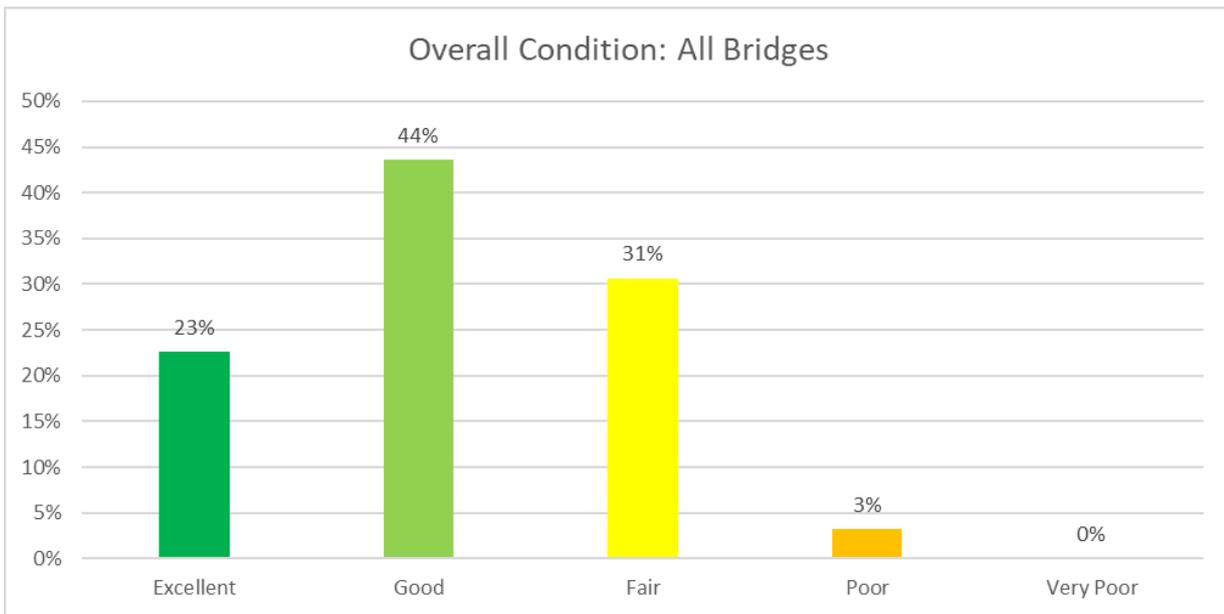
Figure 5 - Condition Profile: All Bridges

What does this mean?

Council have not completed a formal condition audit for Council's bridges in some time. In the absence of recorded condition information, the condition profile for Council's bridges shown in Figure 5 has been estimated by comparing asset age against theoretical degradation profiles and is dependent on the accuracy of the commissioning date for each structure.

The condition profile indicated in Figure 5 has been checked against knowledge of Council's operational staff and appears to be representative of known performance and is reflective of Council's recent investment to renew several ageing bridges in recent times.

Council needs to commence a program to systematically record the condition of Council's bridge stock to measure true performance. Having this information is fundamental to Council's future decision making.

Any condition inspections we undertake will follow the methodology set out in the *Roads and Maritime Services Bridge Inspection Procedure Manual*.
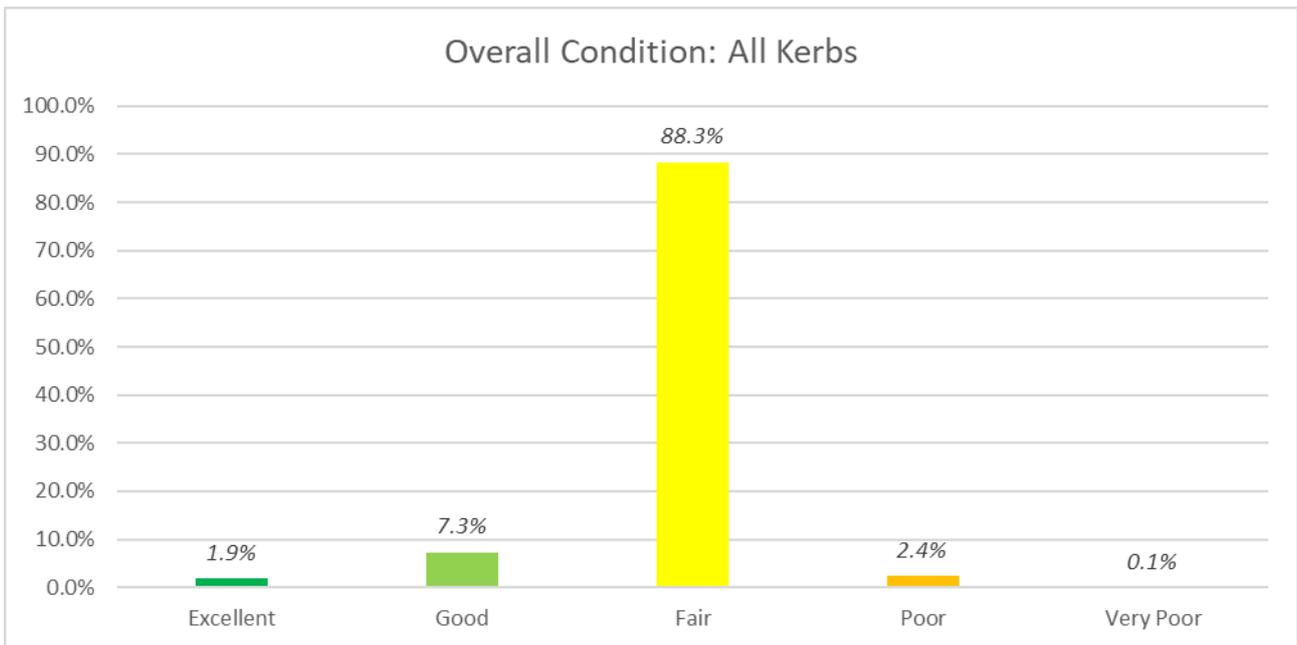
Figure 6 - Condition Profile: All Kerbs

What does this mean?

Figure 6 indicates that according to the most recent condition audit, the overall performance of Council's kerb and gutter is generally in line with expectations for a large rural shire with 97.5% (124.8km) of the network being in 'Fair' or better condition.
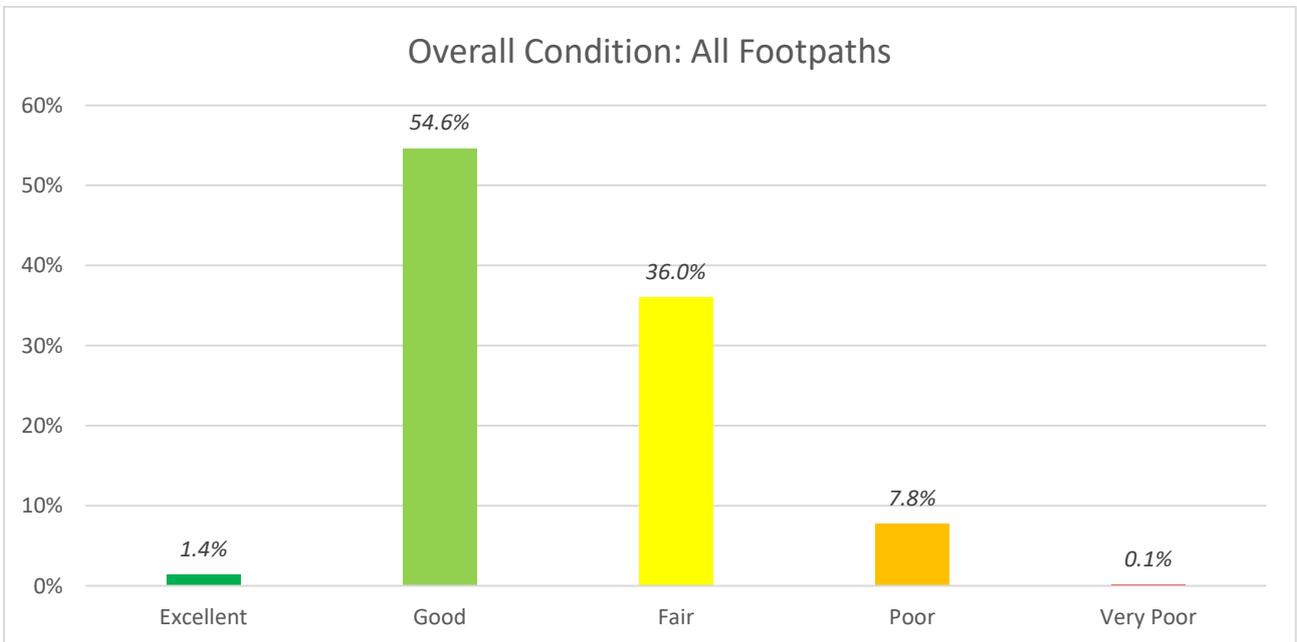

Figure 7 - Condition Profile: All Footpaths

What does this mean?

Figure 7 illustrates that Council is providing a good level of service for its footpath network. This further evidenced by relatively high level of community satisfaction. The result for 2021 indicated

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that 78% of survey respondents were satisfied with the maintenance and provision of footpaths within the shire.
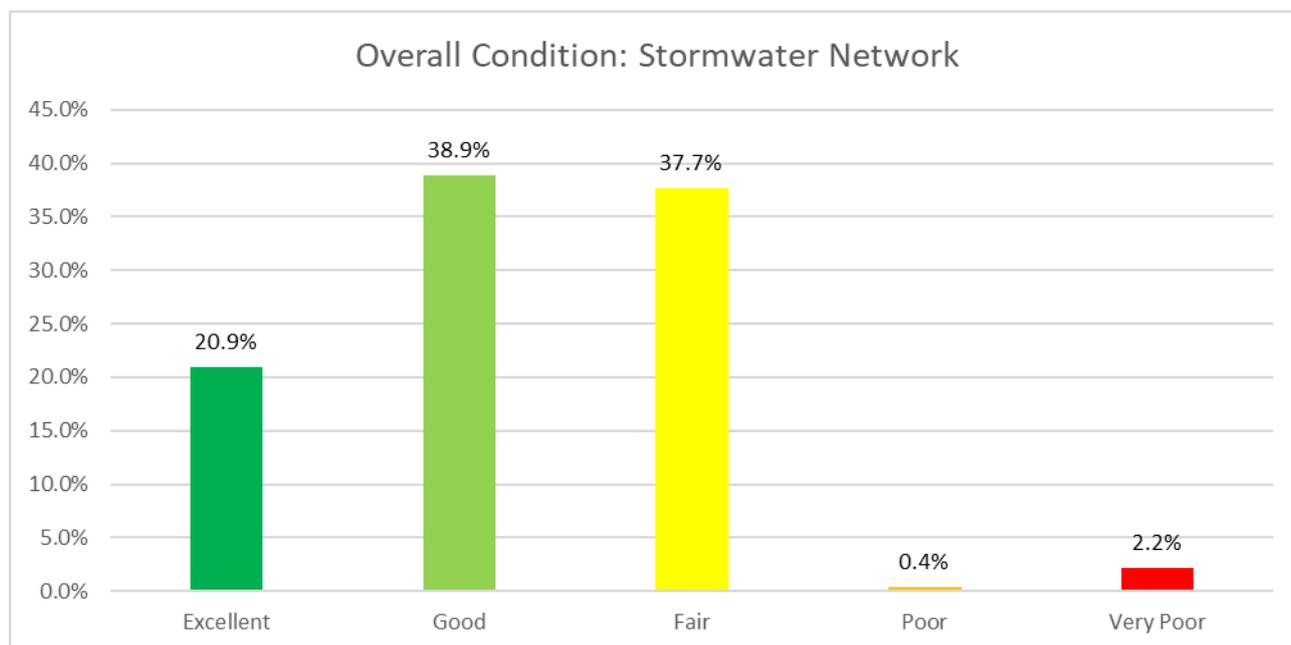

Figure 8 - Condition Profile: All Stormwater Drainage Assets

What does this mean?

At present, there is a limited understanding of the condition of Council's stormwater drainage network including stormwater conduits (i.e., underground pipes and culverts) and stormwater drainage pits. This is due to the significant costs associated with inspecting underground assets to understand their condition and operating performance. Enhancements are necessary to accurately depict the current state of condition across the total system.

Council needs to consider undertaking CCTV condition inspections of at least small network samples. This would provide data to start to improve Council's understanding of network performance. Estimated condition could be extrapolated across the balance of the network using the results of the sample inspections, by considering pipe material, construction date, topography, maintenance history, and other environmental factors.

Better data would enhance Council's asset management decision-making practices and would also be useful in validating asset valuations and depreciation calculations.

The condition of Council's transport assets is summarised in Table 15 which is matched to reflect Council's reporting requirements:

Asset Type	Asset Condition as % of GRC				
	Excellent/ Very Good	Good	Satisfactory	Poor	Very Poor
Sealed roads	85.6%	4.5%	8.8%	1.1%	0.0%
Unsealed roads	23.8%	47.6%	27.5%	0.8%	0.2%
Bridges	22.6%	43.5%	30.6%	3.2%	0.0%
Footpaths	1.4%	54.6%	36.0%	7.8%	0.1%
Bulk earthworks	Not condition rated				
Kerb and gutter	1.9%	7.3%	88.3%	2.4%	0.1%
Stormwater Drainage	20.9%	38.9%	37.7%	0.4%	2.2%

Table 15 - Condition Summary: Transport Assets

5.2   Operations and Maintenance Plan

Operations and maintenance plans are designed to enable existing assets operate to their service potential over their useful life. This is necessary to meet service standards, achieve target standards and prevent premature asset failure or deterioration.

Council's objectives in maintaining and operating transport assets are:

● Maintain assets so that they are safe, serviceable, hygienic, and well presented to the satisfaction of Council and the community
● Maintain and preserve the functionality and value of the existing assets.
● Provide and maintain a safe environment for the community within the constraints of Council's financial capacity and resource capability, while displaying a reasonable 'duty of care.'
● Ensure the provision of excellent customer service and that customer requests are responded to quickly and efficiently.

Operations are those activities that keep an asset appropriately utilised. Operations are considered to have no effect on asset condition and include tasks such as:

● Line and pavement marking.
● Kerb and gutter and carriageway cleaning (street sweeping).
● Vegetation control (mowing and slashing in road reserve areas).
● Response to accidents, or Implementation of road closures when necessary.

Maintenance of assets is carried out to ensure that Council's transport infrastructure achieves its service potential while meeting the needs of users. This is achieved by providing an optimum level of maintenance and care in a financially and environmentally sustainable manner. Typical maintenance activities include:

- Repair of potholes and other surface defects.
- Repairs to remove trip hazards from footpaths.
- Replacing signs.
- Minor bridge repairs.

Both operations and maintenance can be planned or reactive activities. Planned or cyclical tasks are programmed to occur at set times or frequencies throughout the year, while reactive tasks are undertaken in response to service requests or as a result of unforeseen asset failures or system interruptions. Planned maintenance work as a % of total maintenance expenditure is not identified in this plan. Information on this should be developed for the next revision of this asset management plan, as higher proportions of planned maintenance expenditure should provide better value than reactive maintenance

5.2.1 Operations and Maintenance Arrangements

Operations and maintenance activities for Council's transport assets is generally managed by Council's maintenance coordinators.

The various activities associated with operations and maintenance of transport assets is delivered using in house resources which is further supplemented using contractors.

5.2.2 Maintenance Standards

Maintenance work is carried out in accordance with the following standards and specifications:

- Relevant technical standards and specifications including Transport for NSW Technical Notes and Guidelines.
- Austroads Guides adapted for local use.
- Australian Road Research Board (ARRB) Publications e.g., Unsealed Roads Manual and Sealed Roads Manual.
- Relevant Australian Standards.

Assessment and prioritisation of maintenance is undertaken by operational staff using experience and judgement and aligns with available budgets and resources.

5.2.3 Inspections

For Council to carry out effective planning and competent management of extensive network of roads and footpaths, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole portfolio.

Council's inspection activities can be grouped into the following categories based on definition and purpose:

Inspection Type	Description	Current Status	Responsibility
Planned Inspections	Visual investigation to assess for hazards or maintenance issues that do not meet Council's levels of service or risk management objectives.	Planned inspections of Council's transport assets are limited. The frequency of planned inspections of Council's roads and footpaths will be considered as part of the Road Strategy we are preparing.	Road Services
Reactive Inspections	Reactive inspections are initiated generally by requests for maintenance received from asset users.	Inspections or site assessments are undertaken as required.	Asset Services
Condition Inspections	A condition audit is a systematic inspection and identification and recording of the physical and functional adequacy of assets.	Every 4 years (Last road condition audit undertaken in 2018)	Asset Services

Table 16 - Asset Inspection Type Summary

5.2.4 Future Operation and Maintenance Costs

Future operation and maintenance costs are forecast to trend in line with the value of the asset stock as shown in Figure 9. Note that all costs are shown in current 2021/2022-dollar values (i.e., real values).
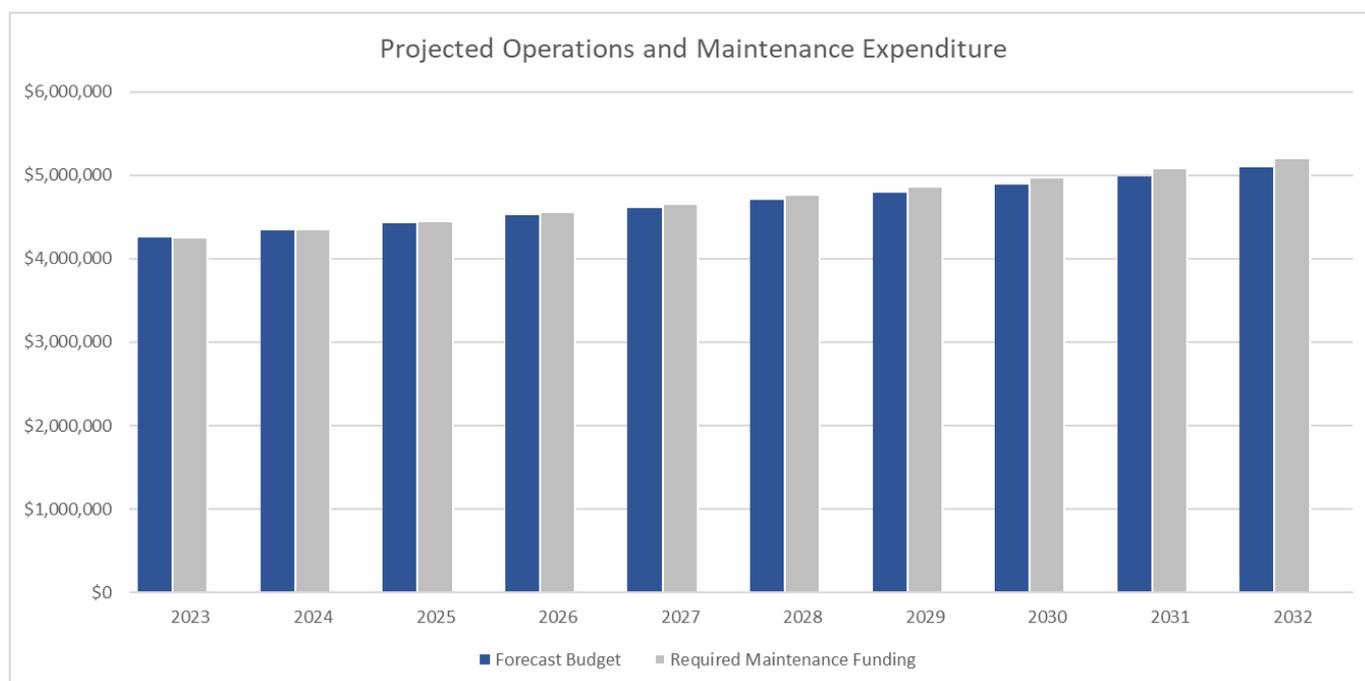

Figure 9 - Projected Operations and Maintenance Expenditure

What does this mean?

Figure 9 outlines the forecast operations and maintenance budgets based on Council's understanding of the current levels of service delivered for its transport assets. The operations and maintenance budget for 2021/22 is **$4.17 million**. Forecast allocations for transport assets maintenance and operations have been assumed to increase in line with the escalation factors outlined in Council's *Resource Strategy* plus provision for new assets.

The total operations and maintenance budget over the next 10-years starting 2023 is **$46.63 million**. The required operations and maintenance budget has been predicted to be approximately **$47.18 million**. This amount has been calculated as a percentage of the total replacement value of the transport portfolio according to industry benchmarks. While it may appear that Council are largely providing adequate funding for the maintenance of Council's various transport assets, Council need to review future allocations to ensure that they are adequately considering the ongoing challenges Council face in managing the extensive road network.

5.3 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 an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project level.

As a general principle the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its performance, rate of deterioration, and a prediction of the optimum time to renew. As the rate of repairs increase a prediction can be made about the optimum time to renew an asset to keep the cost of ownership at the optimum level.

5.3.1 Renewal Standards

Renewal work is carried out in accordance with the current standards and specifications for roadworks described elsewhere in the Asset Management Plan.

Renewal Ranking Criteria

In general, renewal works are prioritised and planned by assessing the following considerations:

- Safety issues.
- Physical condition.
- Risk and asset criticality.
- Community/user feedback.
- Location and use type and patterns.

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure.
- Have high use and subsequent impact on users would be greatest.

- Have a total value representing the greatest net value.
- Have the highest average age relative to their expected lives.
- Are identified in the AM Plan as key cost factors.
- Have high operational or maintenance costs.
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 17.

Criteria	Weighting
Quality (Risk of Failure)	30%
Condition	30%
Operating/Maintenance/Lifecycle Costs	20%
Functionality	20%
Total	100%

Table 17 - Renewal and Replacement Priority Ranking Criteria

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

Future Renewal and Replacement Expenditure

Council's Infrastructure renewal demand forecasts are developed using the predictive modelling capabilities of its asset management information system. These forecasts are annually reviewed and updated as new information (e.g., condition assessments) becomes available.

These forecasts and the underlying assumptions are further reviewed to factor in specific projects and any upgrade projects that include a renewal component to provide the best available guide to renewal requirements. These forecasts are then referred for consideration in the development of the Long-Term Financial Plan which provides a specific allocation for the renewal of assets for each year of the Plan.

Renewal demand and expenditure forecasts for the assets covered by this plan are summarised in Figure 10. These forecasts have been extrapolated from existing finance data and are presented as long-term projections to provide input into Council's Long Term Financial Plan.

The following graph shows a comparison between the:

- Level of funding required to renew Council's transport assets to achieve its service level objectives; and
- The amount of funding which Council is projected to commit to renewing these assets.
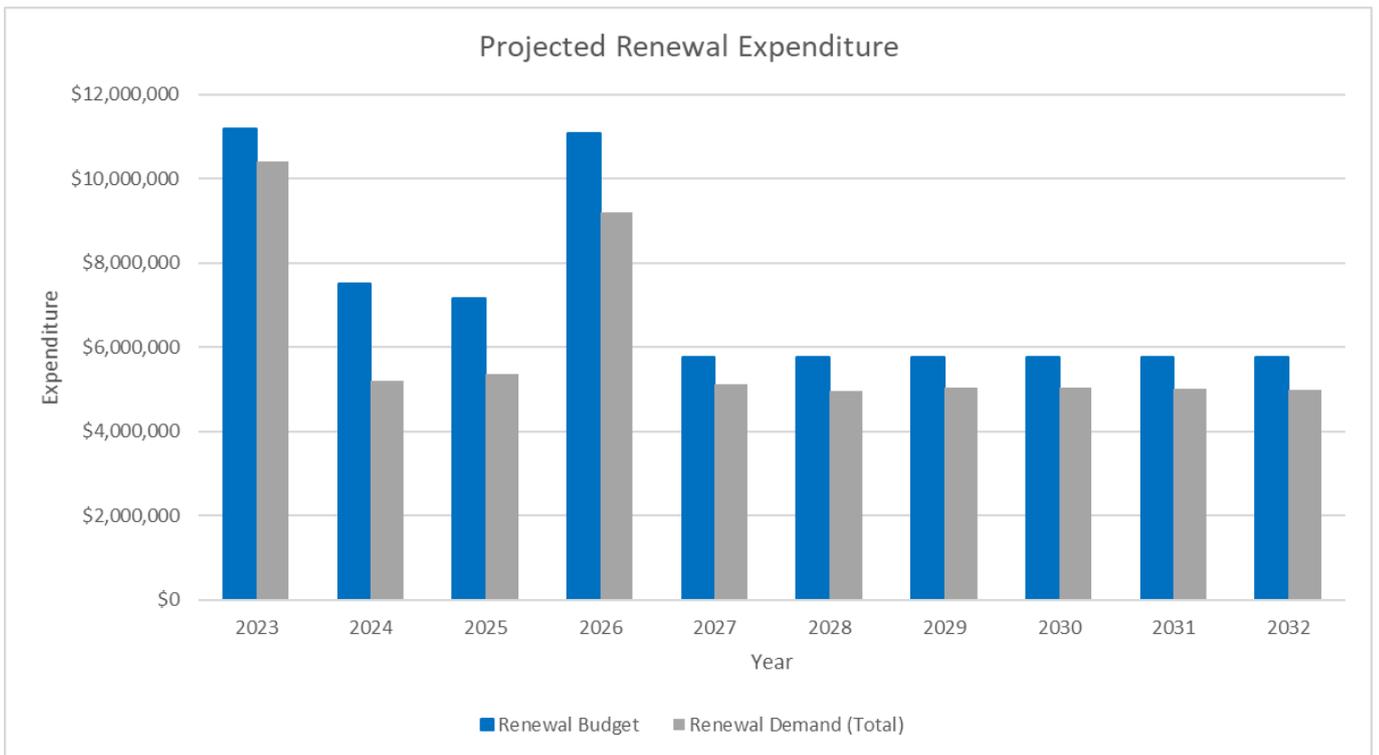
Figure 10 - Projected Capital Renewal and Replacement Expenditure

Figure 10 values are in current (real) dollars.

What does this mean?

Given the time and flood events since the capture of condition information, high level assumptions have been made in determining the long-term renewal requirements for transport assets. This particularly relates to sealed and unsealed road networks. The current condition profiles for each may not be a realistic measurement of current performance based on the operational knowledge of the field crews. The modelling tools used to derive the long-range forecasts can assign overall condition profiles to assets input into the model based on operational knowledge. Based on feedback from members of the operations team, both the sealed and unsealed road networks could be best described as being in 'Average' condition. An 'Average' condition profile has been used in place of the condition information Council have for sealed and unsealed roads. Using the approach, the total renewal demand calculated for Council's transport assets is **$60.3 million**.

The projected renewal budget for this portfolio has been determined from Council's draft 10-year Capital Works Program. The total renewal budget over the forecast period is **$71.5 million.** This figure includes expenditure identified in the draft Capital Works Program specifically for transport asset renewal and components of expenditure classified as upgrade that contribute towards asset renewal. The large spikes in renewal expenditure shown in both 2023 and 2026 are for bridge replacements which are large one-off investments.

While it may appear that we are overspending in transport renewal over the long term, any major adjustments to the planned investment should be deferred until such time that we have improved confidence in asset condition data which is fundamental to informing decision making.

5.3.2   Renewal Modelling Assumptions

The analysis to determine Council's future asset renewal requirements is based on the best available information held at this time. The future funding forecasts will be revised and refined to best represent the performance of the asset base as the maturity of Council's asset management practices improves.

These renewal funding projections are based on the following assumptions:

- The renewal costs are based on the asset data register as of 30 June 2021.
- Asset quantities within the asset register are assumed to be correct.
- Condition '4 – Poor' has been as used as the asset condition renewal intervention level for all transport assets.
- Modelled outcomes are derived using the Moloney Renewal Model and are therefore subject to the limitations of that model and data is used in it, which includes assumed performance of the asset types and trigger intervention levels.
- 'Average' condition profiles in included in the Moloney Renewal model have been used to represent the condition of both the sealed and unsealed road networks. Condition for bridges and stormwater drainage assets derived from age-based analysis. Actual condition data was used for footpaths
- Useful Service Lives derived from the asset register are assumed to be a reasonable estimate of the life of the assets.
- Service levels are based on a technical assessment and may not reflect community expectations or the organisations goals and objectives.
- All projections are in present dollar value.

There is no growth in asset base.

- Thirty percent (10%) of the expenditure identified for capital upgrade expenditure in the draft Capital Works Program is considered as a renewal component and contributes to overall expenditure on asset renewal.
- Future renewal funding levels are derived from the draft 10-year Capital Works Program.
- These projections only represent future asset renewal requirements at an overall network level. This modelling does not provide project level assessments or programs.

5.4 Acquisition and Upgrade Plan

New works are those works that create a new asset that did not previously exist or works that upgrade or improve an asset beyond its existing capacity or performance. They may result from growth, changes in expectations, or social or environmental needs. Assets may also be acquired at no cost through developer contributions.

Within the context of transport assets, new asset, or upgrade creation includes:

- Those works that create a new asset that did not exist in any shape or form, e.g., a new road, additions to the stormwater drainage network, etc.
- Works that improve an existing asset beyond its existing capacity or performance.
  - An extension to an existing asset.
  - Sustainability improvement projects.
  - Service or compliance upgrades.

There are occasions when Council is required to upgrade an asset because of changing demand or use requirements. In such instances, the project is scrutinised closely and is considered as part of the annual budget planning process.

Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor/director or community requests, proposals identified by strategic plans or partnerships with other organisations. Verified proposals are ranked by priority and available funds and are scheduled in future works programmes.

The prioritisation of asset improvement works is undertaken in accordance with the following criteria to ensure alignment with Council's strategic direction and to deliver maximum and affordable community benefits.

Criteria
Bus Routes, Heavy Vehicle Movements, Roads Hierarchy, Safety Concerns, CSP actions,

Table 18 - Asset Improvement Priority Ranking Criteria

5.4.1 Standards and Specifications

As with replacements and renewals, where new assets are created, they are designed using all relevant design codes and Australian Standards.

Council aims to use materials that achieve the greatest asset life while trying to minimise maintenance costs and are environmentally sustainable.

5.4.2 Summary of Future Acquisition Expenditure

Projected upgrade/new asset expenditures are summarised in Figure 11. All amounts are shown in current (real) dollars.

When Council considers discretionary capital expenditures for new or upgraded assets, it is essential to establish the consequential recurring operational and maintenance costs that will occur once the new or upgraded assets become operational. Understanding life cycle costs is part of being fully informed of future liabilities.

As new projects are brought forward for consideration in annual budget deliberations, they will have to include an assessment of these ongoing operational (recurrent) costs to be presented to Council as part of the overall cost projections.
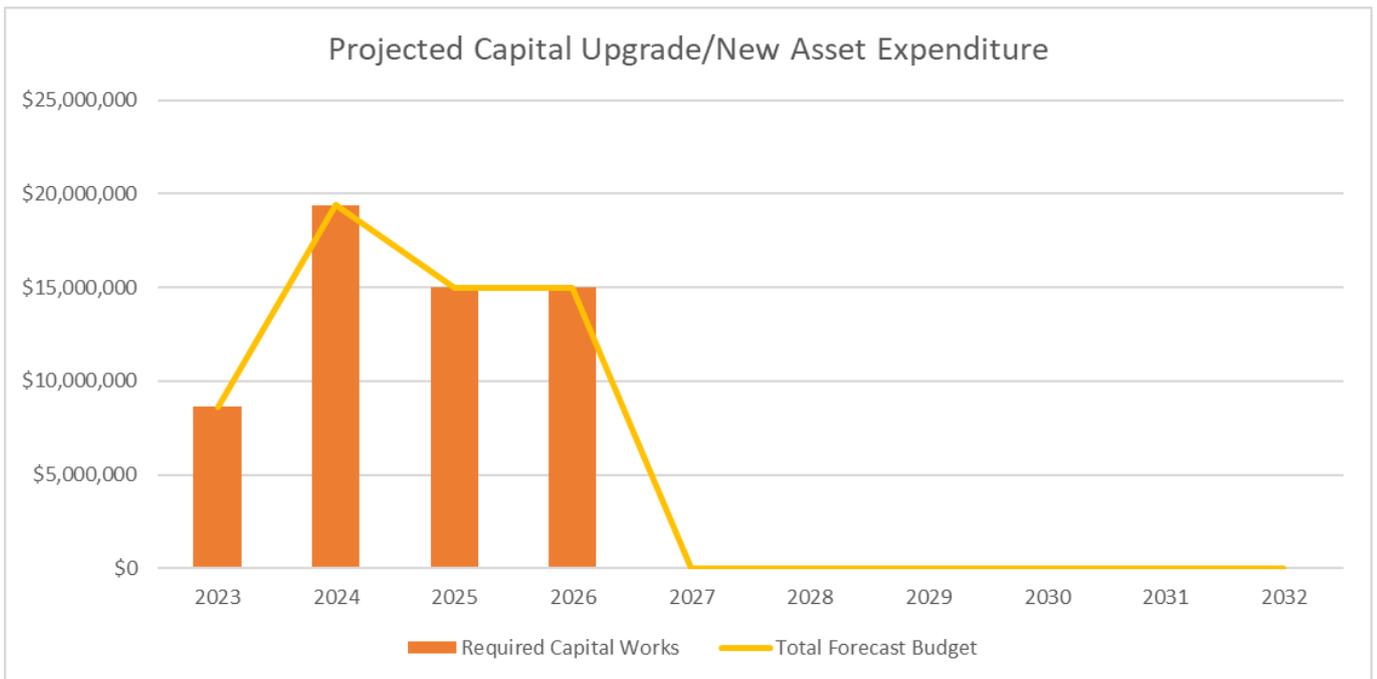
Figure 11 - Projected Asset Acquisition Expenditure

What does this mean?

Similar to projected renewal expenditure, future acquisition allocations have been derived using the draft 10-year Capital Works Program.

Figure 11 indicates both the forecast budget and demand for upgrade, new, and expansion works associated with Council's facilities. These two expenditure profiles are matched on the basis that the projected budget has been used as a measure of the upgrades that are required to support service improvements.

The total investment required over the next 10 years to upgrade or provide enhance Council's transport assets at this point is a total of **$58.03 million**. Council understands that it has more work to do to determine what long-term investment is needed to make sure that it is upgrading Council's road network and other transport assets to cater for increasing demand. *Some of these future upgrade requirements will be guided by the Road Strategy that Council are currently preparing.*

Future spending and improving Council's transport assets is partly dependent on grant funding from other levels of government. Any freezing or reduction in grant funding has the potential to impact the way Council invest in Council's roads in the future.

Summary of Asset Expenditure Requirements

The financial projections from this Asset Management Plan are shown in Figure 12.

This covers the full lifecycle costs over the next ten (10) years to sustain current levels of service. Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates the funding that is forecast to be available.

The gap between these informs the discussion on achieving the balance between services, costs, and risk to achieve best value outcomes.
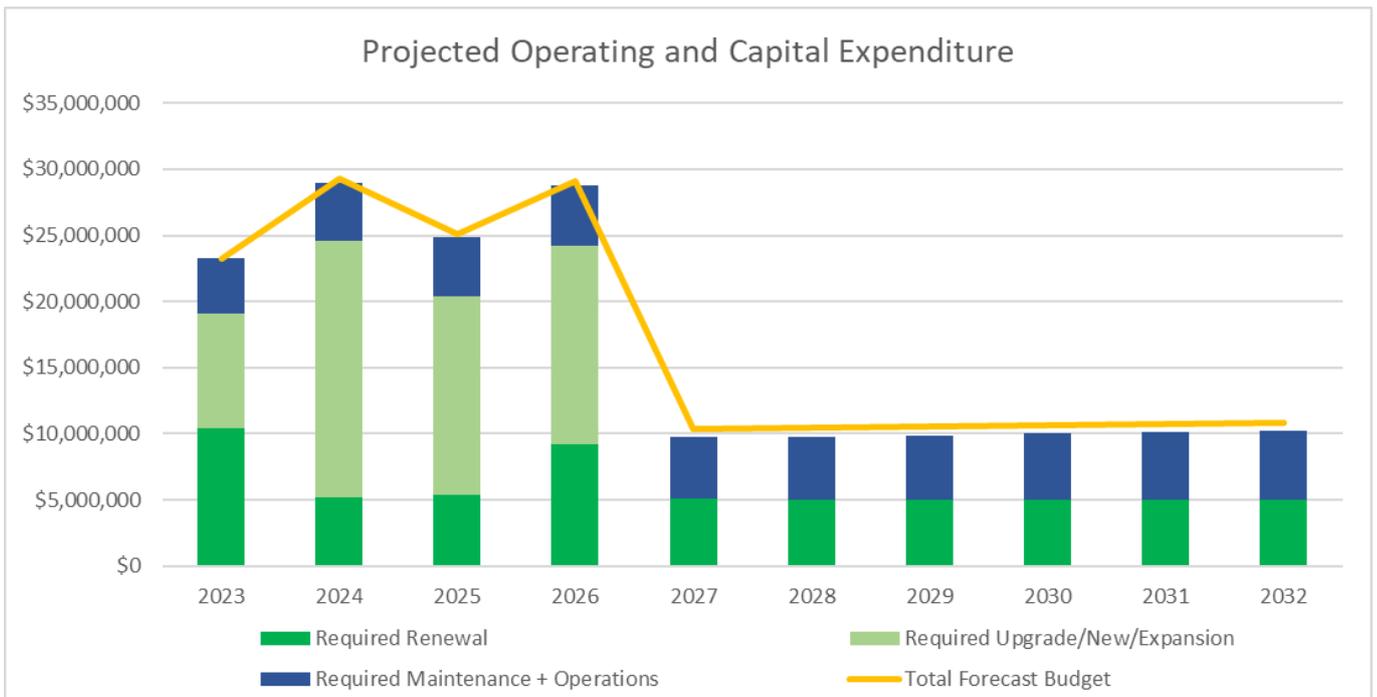
Figure 12 - Projected Operating and Capital Expenditure

Key Financial Performance Indicators for Current Projected Funding	
Total Lifecycle <u>Costs</u> over next 10 years (projected demand)	$165,575,490
Total Lifecycle <u>Budget</u> over next 10 years (from Long Term Financial Plan)	$170,400,282
Total Lifecycle Funding <u>Surplus</u>	$4,824,792
Average Lifecycle Funding <u>Surplus</u> per annum	$482,479
Percentage Lifecycle Funding Being Met	103%

What does this mean?

Forecast projections for lifecycle costs and budget are based on a combination of information that is determined as being reliable and other broad-based assumptions where data confidence is low.

As the data and processes improve, the financial forecasts to renew, improve, and maintain Council's transport assets will be refined and will be used to inform future versions of this Asset Management Plan and the Long-Term Financial Plan.

Decisions to transfer funding across Council's various funding programs need to carefully consider the impacts to service based outcomes, exposure to risk and future operational requirements. Any changes should be considered at a strategic level within the context of the Council's strategic priorities and budget principles. Any major changes to the funding of Council's transport assets should only occur once we better understand both how the portfolio is performing through condition information, and long-term improvements that are necessary to cater for increasing demand.

5.5   Disposal Plan

This includes activity associated with disposal of decommissioned assets including sale, demolition, or relocation. Assets identified for possible decommissioning and disposal deliver annual savings from not having to fund operations and maintenance of the assets. Any revenue gained from asset disposal will be accumulated into Councils long term financial plan.

With 257 kilometres of natural surface roads that currently receive minimal maintenance there are a number of minor roads that could be considered for disposal. These assets need to be further investigated to determine the required levels of service and what options are available for alternate service delivery.

6. RISK MANAGEMENT PLAN

The purpose of this section is to describe the basis of our strategic risk and investment policies and the way we will manage risk associated with our transport assets.

6.1 Risk Management Process

Our risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines and HB 436:2013 – Risk Management Guidelines.

The Framework is designed to provide the architecture for a common platform for all risk management activities undertaken by Council and is used to identify specific risks associated with Council's delivery of services and management of assets.

The objective of the risk management process with regards to our 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 us. The risk assessment process identifies and assesses risks, develops a risk rating, and develops a risk treatment plan for non-acceptable risks.

6.1.1 Risk Assessment

Network or system risks assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified by our asset risk assessment process are summarised in the Table 19.

Risk Event	Risk Rating (VH, H)	Risk Treatment Mitigation Practice	Residual Risk*
Roads deteriorate to a lesser service standard and higher risk situation	High	- Current asset register - Asset Management Information System - Lifecycle management plans - Continuing staff development	Medium
Damage to roads as a result of major storm events	High	- Assistance from natural disaster declarations - Insurance policy	Medium
Personal injury or property damage due to the condition of roads and footpaths	High	- Inspections and response procedures - Prioritisation of maintenance and renewal activities - Public Liability Insurance policy	Medium

Risk Event	Risk Rating (VH, H)	Risk Treatment Mitigation Practice	Residual Risk*
Unexpected failure of critical assets	High	• Regular condition and performance assessments • Reactive and initiative-taking maintenance programs, • Maintenance standards and KPIs	Medium

Table 19 - Infrastructure Risk Register: Transport Assets

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

6.2   Critical Assets

Critical assets are defined as those which have a high consequence of failure or reduction in service.

It is important to identify critical assets as well as the critical failure modes. This makes it possible to target and refine maintenance plans, capital expenditure plans, and investigative activities at the critical areas.

A criticality framework will be developed as the asset management planning processes mature.

This framework will be embedded as part of future revisions of this Asset Management Plan.

7. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial forecasts made will be refined as we improve our understanding of future asset performance and required levels of service.

7.1 Financial Statements and Projections

Asset Valuations

The value of the assets covered by this Asset Management Plan as recorded in our asset register as of 30 June 2021 are shown below.

Current Replacement Cost	$357.55 million
Accumulated Depreciation	$45.69 million
Depreciated Replacement Cost	$311.85 million
Annual Average Asset Consumption	$5.06 million

Assets are valued at fair value based on depreciated replacement cost according to Greenfield rates. Quantities represent those assets whose replacement cost meets Council's adopted capitalisation thresholds.

7.1.1 Asset Sustainability

Council uses the following indicators to measure asset sustainability:

- Asset renewal funding ratio, and
- Projected funding requirements compared with budget allocations (Long Term Financial Plan).

7.1.2 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio	118%

The Asset Renewal Funding Ratio is the most important indicator and shows that over the next ten (10) years we expect to have **118%** of the funds required for the optimal renewal and replacement of assets according to our current Long Term Financial Plan.

Long-Term Financial Planning

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide agreed levels of service over the next 10 years.

These projected funding requirements may be compared to the allocations projected from the Long-Term Financial Plan to determine possible funding shortfalls.

The projected operations, maintenance and capital renewal expenditure required over the 10-year planning period is **$10.75 million** on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is **$11.82 million** on average per year giving a 10-year funding surplus of **$1.06 million** per year.

This indicates **110%** of the projected expenditures needed to provide the services documented in the asset management plan. This represents Council's efforts in maintaining existing levels of service and excludes the provision of new and upgraded assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures, and financing.

7.1.3 Projected Expenditures for Long Term Financial Plan

Table 20 shows the projected expenditures for the 10-year long term financial plan. Expenditure projections are in 2021/2022 real values.

Year	Renewal	Acquisition	Maintenance and Operations
2023	$10,325,176	$8,631,000	$4,258,330
2024	$5,575,176	$19,400,000	$4,354,142
2025	$5,675,176	$15,000,000	$4,452,110
2026	$9,575,176	$15,000,000	$4,552,283
2027	$5,765,176	$0	$4,654,709
2028	$5,765,176	$0	$4,759,440
2029	$5,765,176	$0	$4,866,527
2030	$5,765,176	$0	$4,976,024
2031	$5,765,176	$0	$5,087,985
2032	$5,765,176	$0	$5,202,465
Total	**$65,741,760**	**$58,031,000**	**$47,164,015**

Table 20 - Projected Expenditures for Long Term Financial Plan

The amounts shown in Table 20 the funding needed to fully fund the total lifecycle costs determined through the development of this Asset Management Plan. These amounts need to be verified against affordable levels of expenditure as determined through our Long-Term Financial Plan.

Our Asset Management Plans and Long-Term Financial Plan are the foundation of our long-term resource planning. These plans work together to ensure that expectations are achievable and sustainable.

We are working to improve the integration between our Asset Management Plans and Long-Term Financial Plan.

The Asset Management Plans inform the Long-Term Financial Plan by identifying the amounts that are required to renew, maintain, and improve our assets over their lifecycle.

The Long-Term Financial Plan determines how much funding is available to support our assets. It incorporates knowledge of the condition of our assets, and risk assessment issues, as well as the impact of reviewing and setting intervention and service levels for our infrastructure

7.2 Funding Sources

Funding for assets is provided from Council's annual budget and Long-Term Financial Plan.

Council's financial strategy determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

Council uses several different funding sources to maintain, renew and improve its transport assets. These are:

Activity	Funding Source
Maintenance and Operations	● Council's own source funds
Renewal	● Council's own source funds
Capital Improvement (i.e., new, upgrade, and expansion)	● Council's own source funds ● External grant opportunities ● Developer contributions and donated assets

Table 21 - Funding Sources

7.3 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Financial projections are forecast on present day dollars as of 30 June 2021.
- Staffing needs are resourced adequately.

Current levels of service reflect community needs.

- Future funding levels are derived from the 2021/22 Capital Works Budget and draft 10-year Capital Works Program.

No known legislative changes or other influences that will impact on or demand a change in level of service and associated funding throughout the period of the plan

Provision for new works is based on phased implementation of new and upgrade needs to meet future growth.

Projected renewal required to achieve overall asset condition grade of 'Poor" or better.

- Increases in operating and capital budgets are consistent with the Long-Term Financial Plan.

7.4 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a five (5) level scale in accordance with Table 22.

Confidence Grade	Description
A – Highly reliable	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%

B - 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 ± 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 ± 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 ± 40%
E - Unknown	None or very little data held.

Table 22 - Data Confidence Grading System

The estimated confidence level for and reliability of data used in this Asset Management Plan is **D – Very Uncertain** at this stage.

The implementation of the improvement actions identified will result in increased levels of confidence in future revisions of this Asset Management Plan.

8. PLANNED IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

Council currently uses the following corporate information systems for recording relevant asset data and information:

Module	System
Customer Request Management	TechOne
Financial/Accounting	TechOne
Records Management	TechOne
Mapping (GIS)	Intramaps
Asset Register	TechOne
Strategic Asset Management	TechOne Strategic Asset Management Module (yet to be implemented for transport assets)
Mobile Solutions	TechOne mobile platform (yet to be implemented for transport assets)
Works Management	TechOne (yet to be implemented for transport assets)

Table 23 - Overview of Corporate Systems

The asset management information system underpins asset management capacity and capabilities and is a key source of information for decision making, coordination of operations, and performance reporting.

8.2 Improvement Plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table 24.

Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
1	Continue work to consolidate all transport asset related data into TechOne so that there is a central asset register providing a source of reliable information.	Road Services Asset Services	High	Internal/ External	✓	✓	✓	
2	Finalise development of the Road Strategy including review of the current functional hierarchy and documenting affordable levels of service.	Road Services Asset Services	High	Internal	✓	✓		
3	Complete a comprehensive condition inspection of all bridges and major culverts to understand their current performance and any underlying risks. Condition inspections should follow the methodology set out in the *Roads and Maritime Services Bridge Inspection Procedure Manual*	Road Services Asset Services	High	External	✓	✓		
4	Program to complete a condition survey of the sealed and unsealed road networks. It is imperative that the survey follows the methodology which has used in the past to allow for comparative analysis between survey results.	Road Services Asset Services	High	External		✓		
5	Undertake CCTV condition inspections of network samples to improve the quality of existing asset data including spatial mapping	Road Services Asset Services	Medium	External			✓	✓

Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
6	Using sample condition data, reassess asset performance by considering pipe material, construction date, topography, maintenance history, and other environmental factors and apply to network.	Road Services Asset Services	Medium	Internal			✓	✓
7	Implement the TechOne maintenance and mobile modules to support maintenance planning for transport assets and to enhance data capture and activity tracking.	Road Services Asset Services	Medium	Internal/ External		✓	✓	✓
8	Improve current asset handover processes so that data for this asset class is accurate and new assets are incorporated into existing maintenance schedules along with requisite budget adjustments.	Projects and Assets	Medium	Internal		✓	✓	
9	Establish processes to monitor and report maintenance delivery performance against adopted maintenance standards	Road Services Asset Services	Medium	Internal	✓	✓		
10	Review OPEX cost allocation framework to capture maintenance and operations costs at activity level.	Road Services Finance	High	Internal		✓		
11	Undertake service planning for Transport Services to inform future budget and asset requirements.	Road Services Projects and Assets	High	Internal/ External			✓	✓

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Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
12	Formalise evaluation criteria and process to prioritise and plan capital improvement and renewal projects	Road Services Projects and Assets	Medium	Internal		✓	✓	
13	Develop a project-based ten (10) year Capital Works Program for renewals, upgrades, and new works.	Road Services Projects and Assets	Medium	Internal	✓	✓		
14	Develop a criticality framework for Council's assets and apply to the transport asset portfolio to inform lifecycle management decisions.	Road Services Projects and Assets	Medium	Internal	✓	✓		
15	Determine additional operational and maintenance requirements due to new and upgraded assets and as determined through service planning.	Road Services Asset Services	Medium	Internal			✓	✓

Table 24 - Improvement Plan

This first-generation asset management plan has been developed based on existing processes, practices, data, and standards.

Council is committed to striving towards best appropriate asset management practices and it is recognised that this asset management plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's asset management plans are 'living' document that should always reflect as closely as practicable actual practices used in managing our assets. Only in this way will Council be best able to ascertain its long-term financial needs for the network.

A few improvement actions have been identified which will enhance Council's capability for managing those assets covered by this plan.

8.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services due to budget decisions.

The Asset Management Plan 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 Long-Term Financial Plan.

The Asset Management Plan will have a life of four (4) years and will be completely reviewed and updated to inform the development of the Community Strategic Plan, the Operational and Development Plan, and the Long-Term Financial Plan.

8.4 Performance Measures

Performance measures will be developed to ensure that work practices and the Asset Management Plan are reflective of each other.

The performance of the Asset Management Plan shall be monitored against the following criteria in accordance with the process detailed below.

- Maintenance and renewal programs - to confirm that allocated budget projects were delivered on time, within budget and to the specified level of service (see following item on delivery performance).
- Inspection programs - to confirm that they were undertaken as specified in the asset management plans and any other service level agreements which may be in operation including Council's.
- Scheduled condition surveys – to confirm that they were undertaken as required.
- Maintenance of asset information systems - to ensure that stored data is current and accurate.
- External factors - including legislative requirements, ongoing development of Council policies, plans, and other major system implementations, which may affect the contents of the asset management plan.

2022 Buildings and Other Structures Asset Management Plan

Document Control

Prepared by: CT Management Group P/L PO Box 1374 GEELONG VIC 3220 Email : admin@ctman.com.au Web : www.ctman.com.au	Document: Narrabri Shire Council - Buildings and Other Structures
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	Date: April 2022
	Synopsis: Lifecycle Asset Management Plan for Council's buildings and other structures asset portfolio

CONSULTANTS DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
1.0	11/4/2022	Narrabri Shire Council	Draft
1.1	11/5/2022	Narrabri Shire Council	Revised draft
1.2	01/06/2022	Narrabri Shire Council	Draft

SCHEDULE OF ADOPTION

Version No.	Date	Comment	Resolution
1.2	16/05/2022	Endorsed for Public Exhibition	130/2022
1.3	28/06/2022	Adopted	

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1. EXECUTIVE SUMMARY

1.1 Purpose of the Plan

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This Asset Management Plan details information about Council's buildings and other structures. The plan outlines the management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period.
- Continual improvement in the management of the assets and performance monitoring.

1.2 Asset Description

Council's buildings contribute to the community through:

- Accommodating services.
- Supporting social connectedness and wellbeing by serving as community focal points.
- Providing facilities for recreation and maintaining a healthy population lifestyle.

The building portfolio includes facilities such as:

- Narrabri Airport
- Narrabri Livestock Selling Centre
- Community facilities such as public halls, libraries, etc
- Clubhouses and sports pavilions
- Public toilets/amenities
- Boggabri Caravan Park
- Buildings that support Council's operations (e.g., administration buildings, depots etc)
- Residential houses
- Minor structures such as sheds, shade sails, etc.

These infrastructure assets have a significant replacement value of **$66.52 million.**

Buildings and Other Structures Condition Profile

- Poor- 9%
- Very Poor- 0%
- Excellent- 29%
- Fair- 29%
- Good- 32%
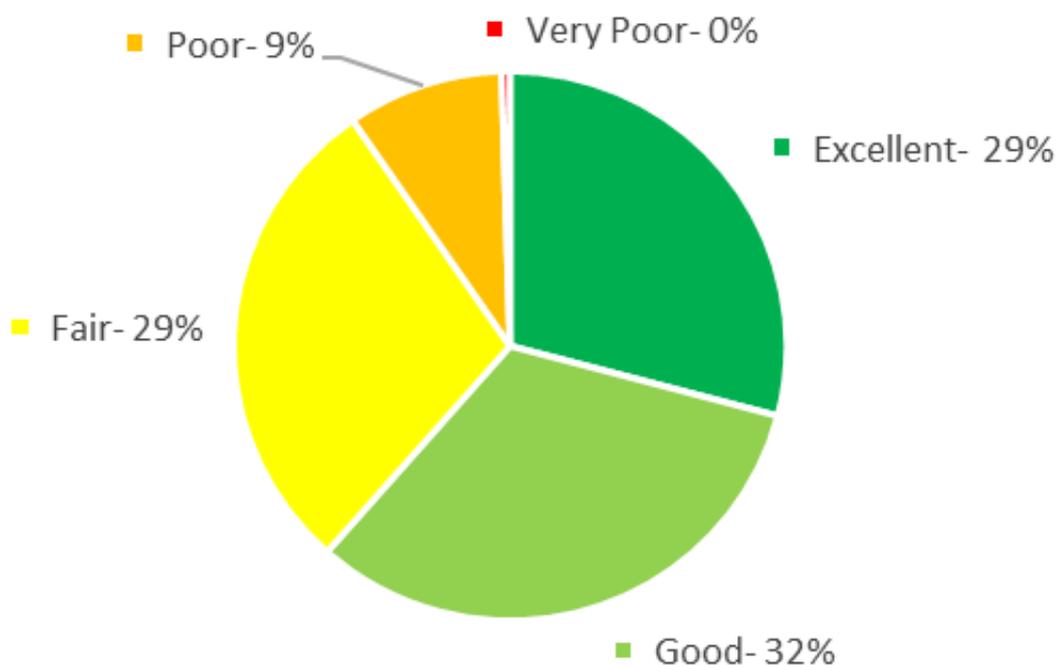
At present, almost **91%** of our buildings and other structures by value are in 'Fair' or better condition.

1.3   Levels of Service

Levels of service are generally set based on legislative and compliance obligations, and historical standards that we have used in the past. To support this, we have prepared high level performance measures to monitor the effectiveness of our service delivery. This builds on the work we have done to prepare our service plans for both Property Services and Airport Services.

In future, we expect to undertake deliberative community engagement to validate our levels of service.

At present, management of assets, including intervention points and chosen treatment methods, is based upon:

- Available budget and resource allocations.
- Feedback from the community.
- Active monitoring of the performance of the various assets that comprise the buildings portfolio.

This Asset Management Plan has been prepared based on our current knowledge of the performance of our buildings and other structures. The financial analysis that has been undertaken indicates that Council is projected to underfund current levels of service in the medium to long term.

The main consequences of this projected spending pattern should it continue are:

Deteriorating assets which will impact the service quality.
An increasing asset renewal gap impacting long term financial sustainability
Generational cost shifting where future residents will inherit the cost of renewing current day assets.
Inability to meet demand for new services through provision of new, expanded or upgraded facilities.

This Asset Management Plan, and future revisions, will inform the long-term financial planning to fund the future renewal and upgrades necessary to meet the capacity demand and levels of service.

1.4   Future Demand

The main demands for new services are created by:

- Rising community expectations.
- Changes to the makeup of the shire's population.
- Council financial sustainability.
- Climate change.
- Increasing costs of materials and services.
- Ageing infrastructure.

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

Demand management practices include:

- Formal planning and community consultation to identify where demand is greatest and of highest priority.
- Regular inspection of assets to ensure they remain in good condition and are fit for purpose while they are in service.
- Advocacy efforts to attract external funding through Government Grants to increase the available sources of funding for upgrade and new capital works.

1.5   Lifecycle Management Plan

Lifecycle planning describes the approach to maintaining an asset from construction to disposal. It involves the prediction of future performance of an asset, or a group of assets, based on investment scenarios and maintenance strategies.

The current approach to managing and operating buildings is transitioning to a more proactive approach as we are continually improve knowledge on performance, changing requirements, and service demands.

Council is always striving to improve its approach to lifecycle management to make sure that it delivers on our service commitments in the most cost effective and efficient manner.

1.6   Financial Summary

The projected outlays necessary to provide the services covered by this plan over the next 10-years is **$29,915,939** or **$2,991,594** on average per year. These lifecycle costs include provision for operations, maintenance, renewal, upgrade, and provision of new assets.

Maintenance and operations costs and are determined according to current levels of service and projected increases consistent with our Long-Term Financial Plan. Future renewal costs are determined using our analysis tools that predict when an asset needs to be replaced based on its current condition and our understanding of how it ages and deteriorates over time. Upgrading and provision of new assets is generally guided by our various strategies, plans and community expectations.

Projections for lifecycle costs will be refined with continual work towards enhancing asset management systems, processes, and asset data.

1.1.1   What funding sources are available

Estimated available funding for the next 10 financial years is **$22,426,192** or **$2,242,619** on average per year. This is **75%** of the cost to sustain the current level of service at the lowest lifecycle cost. This funding profile has been derived to current financial information to us and has been derived by extrapolating from our 2021/22 Capital Works Budget and draft 10-year Capital Works Program.

Allocated funding contained in Council's Long Term Financial Plan leaves a shortfall of **$748,975**

on average per year of the projected expenditure required to provide the services in this Asset Management Plan.
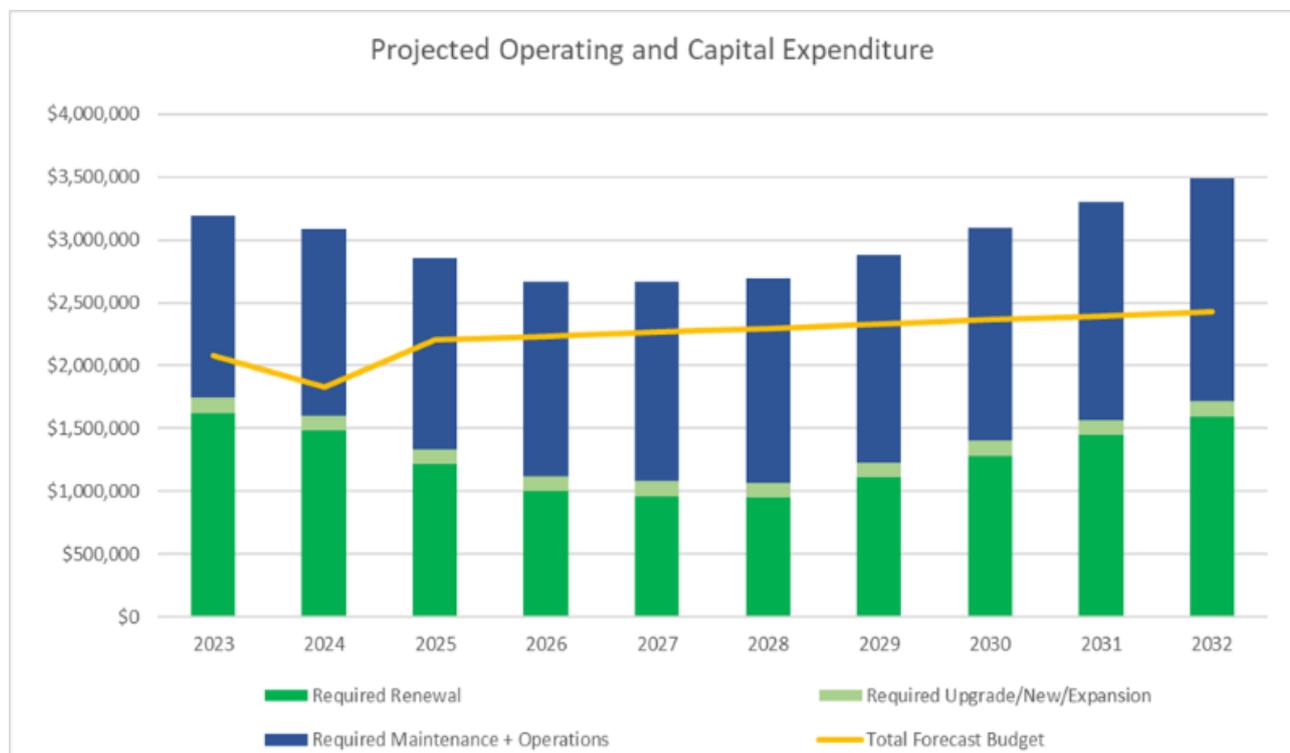
Council acknowledges that we have more work to do so that we can determine what long-term investment is needed to make sure our buildings are fit for purpose and of a contemporary standard.

Council is currently preparing detailed Facility Management Plans for individual buildings and groups of buildings of like function. The purpose of these Plans is to identify work needs and priorities and cyclical maintenance and operations expenditure. This will help to better understand the full lifecycle costs of our buildings. Asset Management Plan will be updated once the each of the Facility Management Plans have been finalised.

1.1.2 What we will do with constrained funding

Plan to provide the following related services:

- Operation, maintenance, renewal, and upgrade of our facilities to meet service levels set by Council in annual budgets
- Plan asset renewal to ensure that the highest priority assets are targeted for renewal each financial year. Prioritisation must be based on risk

1.1.3 What Council cannot do with constrained funding

Currently Council do **not** allocate enough funding to sustain all services at the desired standard or to provide all new services being sought.

Works and services that cannot be provided under present funding levels are:

- Projects that do not align to Council's strategic direction.
- Building renewals that are not multi-faceted in their design to cater for a range of uses.
- Buildings that are the remit of other levels of government to provide.
- Building upgrades or renewals that duplicate existing facilities at the detriment of areas without facilities.

Council will continue to work with its partners and stakeholders within the community and in Government to press for more funding to ensure Narrabri Shire can continue to grow and service existing and newly established residents.

1.7 Risk Management

There are risks associated with providing the service and not being able to complete all identified activities and projects.

The main risks are:

- Damage to or loss of buildings because of major storm events or fire.
- Liability associated with not fulfilling our fire safety and property protection obligations.
- Disruption to Council services a result of buildings nor being available; and
- Buildings do not adequately support service delivery or meet user needs.

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

- Introducing more proactive approaches to the management of our building portfolio.
- Understanding asset needs through stronger linkage between service planning and asset provision.
- Continuing to make sure we with comply with our building fire safety obligations.

1.8 Asset Management Practices

Council's Asset Management Framework provides a structured approach for the development, coordination, and control of our activities on assets over their life cycle, and for aligning these activities with our vision and strategic objectives.

Council's asset management planning is supported by three key documents:

- Asset Management Policy,
- Asset Management Strategy; and
- Asset Management Plans.

Our systems to manage assets include:

- Finance and accounting – TechOne Financials
- Asset management system – TechOne Enterprise Asset Management

Assets requiring renewal/replacement are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project

1.9 Monitoring and Improvement Program

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

- Consolidating all buildings and other structures asset related data into the Asset Management Information System so that there is a single source of truth.
- Continuing to prepare Facility Management Plans for individual buildings or groups of buildings with similar functions to understand future lifecycle costs for input into the Asset Management Plan and Long-Term Financial Plan.
- Collecting building asset data (including condition information) to inform strategic and operational analysis and decisions.
- Implementing functionality of the corporate Asset Management Information System support maintenance planning for building assets and to enhance data capture and activity tracking.
- Developing a project-based 10-year capital works program for renewals, upgrades, and new works.

2. INTRODUCTION

2.1 Background

Narrabri Shire Council owns a portfolio of buildings and other structures to support its operations and delivery of services to the community. These infrastructure assets range in age, quality, and function.

Our buildings and structures vary from simple shelters and storage sheds through to amenity blocks, libraries, office blocks, and community centres.

The management of our buildings requires prudent coordination of our technical and operational resources. This Asset Management Plan provides for the management of our building assets throughout their entire life cycle from acquisition or construction, routine maintenance through to refurbishment or disposal.

2.2 Purpose

This Asset Management Plan outlines the required management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- Identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period.
- Continual improvement in the management of the assets and performance monitoring.

This Asset Management Plan is to be read with our Asset Management Policy and Asset Management Strategy along with the Community Strategic Plan, Delivery Program, and Operational Plan. Figure 1 shows the different documents that influence and inform this Asset Management Plan.

Figure 1 - Asset Management Document Relationship

2.3 Assets Included in the Plan

This Asset Management Plan covers all buildings and other structures that are owned by Council. The assets covered are shown in Table 1.

Asset Class	Asset Group	Quantity	Unit	Current Replacement Value ($)	Useful Life (Years)
Buildings and Other Structures	Buildings	218	No.	$47,235,548	10 - 150
	Other Structures	79	No.	$18,286,990	10 - 50
Total				$65,522,538	

Table 1 - Assets Covered by this Plan

'Other structures' include ancillary infrastructure such as water tanks, fences, hardstand areas, internal roadways, lighting, airport infrastructure such as runways and taxiways, saleyard infrastructure such as cattle grids, effluent treatment systems, etc. Waste collection and disposal assets are also included in the other structures asset class.

A review of the items included in the 'Other structures' asset category which has resulted in the re-categorisation of some assets to other asset classes such as parks and open spaces. Only 'other structures' related to Council's Buildings asset class are included in this Asset Management Plan. Items that have been re-categorised are incorporated into Asset Management Plans for other asset classes.

2.4   Assets Excluded from the Plan

This Asset Management Plan excludes facilities that are non-Council buildings that are located on land that is not owned by Council. While Council may make some limited financial contribution to such facilities, they are not recognised as Council assets.

2.5   Plan Framework

This Asset Management Plan has been prepared using good practice guidance from the ISO55000 - Asset Management standard, International Infrastructure Management Manual and the Office of Local Government's Integrated Planning and Reporting Manual for Local Government in NSW and has been developed based on existing processes, practices, data, and standards.

We are committed to striving towards best appropriate asset management practices and it is recognised that this Asset Management Plan will need to be updated periodically to reflect changes to management of our assets.

It is intended that the Asset Management Plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will Council be best able to ascertain its long-term financial needs for delivering sustainable assets and services.

2.6   Goals and Objectives of Asset Ownership

The goal in managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers. By achieving the most cost-effective approach, we will contribute the affordability and liability of our community, including a vibrant, growing, and efficient local economy.

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 that meet the defined levels of service.
- Identifying, assessing, and appropriately controlling risks.
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

2.7   Key Stakeholders

The assets are utilised by a broad cross-section of the community.

The stakeholders in the management of Council's buildings are many and often their needs are wide-ranging. The relevant key stakeholders are:

- General public.
- Community/user groups and other organisations.
- Sporting clubs.
- Committees of Management.
- Lessees.

- Local businesses.
- Councillors.
- Employees and volunteers.
- Contractors and suppliers.
- Other levels of government and government departments.
- Council's insurers.

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding.

This plan will demonstrate to the various stakeholders that Council is managing its building portfolio in a responsible manner.

2.8   LEVELS OF SERVICE

This section defines the level of service or performance criteria that are required and the basis of the decision behind their adoption. The levels of service support our strategic goals and are based on customer expectation and statutory requirements.

In developing the levels of service outlined in this Asset Management Plan, we have given due regard to the following:

Community Requirements (*Customer* Expectations*)*	These are the expectations of the customers/community. These expectations (quality) must be balanced with the community's ability and desire to pay (balancing risk, cost, and performance).
Strategic Goals and Objectives *(Strategic Drivers)*	The lifecycle management of assets (service offered by assets, service delivery mechanism and specific levels of service that Council wishes to achieve) will be consistent with goals and objectives stated in the Community Strategic Plan, Delivery Program, and Operational Plan.
Legislative Requirements (Mandatory Requirements)	These are the objectives and standards that must be met, set by legislation, regulations, Codes or Practice, and Council by-laws that impact the way assets are managed.
Industry Standards and Guidelines *(Operating Requirements)*	Design and construction standards and guidelines that provide the principles and minimum design standards for an asset.

Table 2 - Key Levels of Service Drivers

2.9   Customer Research and Expectations

1.1.4   Community Consultation

Council undertakes inclusive community consultation to define service levels and performance measures through the development of our Community Strategic Plan, the Delivery Program and Operational Plan, and Annual Budget. These discussions provide input to Council's strategic directions which are supported by the various services, projects, and programmes which we deliver.

Wherever practicable, community input is sought on appropriate aspects of planning our buildings by way of consultation. However, it is acknowledged that Council need to do more work with our community to confirm our levels of service. The aim is to target discussions when making decisions that influence the way that we deliver services and manage assets.

1.1.5 Community Satisfaction

Council regularly seeks feedback from the community on our performance via a formal Customer Satisfaction Survey. This survey measures community views towards, and satisfaction with our services and facilities. The results from the survey conducted in 2021 are summarised in Table 3

Customer Satisfaction Index	Result	Result (Rating out of 5)
	2019	2021
Libraries	4.25	4.15
Sporting facilities	Not measured	3.70
Saleyards	3.87	3.75
Airport services	3.47	3.35

Table 3 - Customer Satisfaction Results

The results of the 2021 survey indicate that the community is moderately satisfied with various services that rely on buildings and facilities for their delivery. This measure is reflective of both the standards of service and the condition and quality of the facilities that are used to support them.

Council will aim to incorporate a greater emphasis on specifically measuring the community's level of satisfaction with our broader building portfolio in future versions of this Asset Management Plan.

2.10 Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of our vision, mission, strategic directions, and strategies.

Council's vision is:

> *The Narrabri Shire will continue to be a strong and vibrant regional economic growth centre providing a quality living environment for the entire community.*

Relevant Council strategic directions and objectives can be found on the Community Strategic Plan. Details on the specific actions we will implement to address these objectives are outlined in our Operational Plan and Delivery Program.

We will continuously exercise our duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

2.11 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

Legislation	Requirement
Local Government Act 1993	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.
Workplace Health and Safety Act 2011	Protects workers and other persons against harm to their health and safety and welfare through elimination or minimisation of risks arising from work.
Environmental Planning and Assessment Act 1997	Encourages the proper management, development, and conservation of natural and artificial resources, for the purpose of promoting the social and economic welfare of the community and a better environment.
Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021	Sets out the detailed requirements for undertaking building work in NSW and fire safety requirements, including those relating to fire safety certificates and fire safety statements.
Public Works and Procurement Act 1912	An Act to consolidate the Acts relating to Public Works; and to make provision in relation to the procurement of goods and services for New South Wales government agencies.
National Construction Code	Performance standards for buildings
All relevant Australian Standards and Codes of Practice	Referenced in the BCA as amended. Covers design, demolition, painting, pest management, electrical installations, plumbing, design, and access for mobility and virtually every aspect of building construction and management
Disability Inclusion Act 2014	An Act relating to the accessibility of mainstream services and facilities, the promotion of community inclusion and the provision of funding, support, and services for people with disability; and for other purposes
Disability Discrimination Act 1992 (Cth)	To ensure that persons with disabilities have the same rights as the rest of the community (including access to premises).

Table 4 - Legislative Requirements

2.12 Alignment to Services

The assets covered by this Asset Management Plan contribute and support the delivery of the following services:

Asset Type	Council Service Category	Service Description
Buildings and Other Structures	Property Management	• Provide strategic direction and management for proscribed service responsibilities. • Ensure leasing and licensing of Council's properties in accordance with the legislative framework, plans of management (where applicable) and Council policy. • Management of Council owned caravan parks (Leased and operated) • Maintenance of major building assets within the Narrabri Shire, including administration buildings, the Crossing Theatre, Libraries, Depots, Council housing, and other buildings as required.
	Animal Sales Facility	• Facility that allows for the sale of cattle by local agents for local graziers
	Depot Management	• Depot Management Services
	Airport Services – Landside Operations	The landside operation of the Narrabri Airport currently includes: • Terminal building. • Car parking. • Aircraft hangar. • Rural Fire Service/Airport Administration Office. • Airport Coordinator's cottage. • Leased facilities and land. • Grounds maintenance.

Table 5 - Services Delivered by Assets

These services align with Council's service planning, delivery, and reporting framework.

2.13 Levels of Service

Service levels can be defined in two interconnected ways, customer levels of service and technical levels of service. These are supplemented by organisational measures which are the Community Plan, Council Plan, and the Annual Budget. Service performance results are reported through Council's Annual Reports.

Levels of service are generally set based on legislative and compliance obligations, and historical standards that we have used in the past. To support this, we have prepared high level performance measures to monitor the effectiveness of our service delivery. This builds on the work we have done to prepare our service plans for both Property Services and Airport Services.

In future, we expect to undertake deliberative community engagement to validate our levels of service.

1.1.6 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the Asset Management Plan are:

Quality	How good is the service? What is the condition or quality of the service?
Function	Is it suitable for its intended purpose? Is it the right service?
Capacity/Use	Is the service over or under used? Do we need more or less of these assets?

The current and expected customer service levels are detailed in Table 6.

Organisational measures are measures of fact related to the service delivery outcome (e.g., number of occasions when service is not available, condition percentages of Very Poor, Poor/Average/Good, Very Good).

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Quality	Buildings are clean, inviting and are free from major defects and faults including vandalism and graffiti related issues.	Annual Community Satisfaction Survey	To be determined	To be determined
	Buildings are maintained to an acceptable condition.	Percentage of buildings in 'Fair' condition better	91%	To be determined
Function	Facilities are fit for purpose and satisfy stakeholder and operational demands	Fitness for purpose index	To be determined	To be determined
	Buildings are accessible for users of all abilities.	Percentage of facilities that meet accessibility standards	To be determined	To be determined

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Capacity/ Utilisation	Council's overall provision of facilities is utilised effectively	Building utilisation index	To be determined	To be determined

<div align="center">**Table 6 - Customer Level of Service**</div>

2.14 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Operations *(Reliability, Safety, and Responsiveness)*	The regular activities to provide services (e.g., opening hours, cleaning, mowing grass, utility consumption, inspections, etc.
Maintenance *(Reliability, Safety, and Responsiveness)*	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g., repair to playground components, repair to path and bike track networks, etc),
Renewal *(Condition and Cost)*	The activities that return the service capability of an asset up to that which it had originally (e.g., replacement of lighting towers, street litter bins, playground components or renewal of hardcourt surfaces),
Asset Improvements *(Availability, Function, Sustainability and Capacity)*	The activities to provide a higher level of service (e.g., bespoke playgrounds, adding drainage to football fields, new or improved sport field lighting, increasing the numbers of trees in parks,) or a new service that did not exist previously (e.g., a new reserve or playground).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels Table 7 shows the technical levels of service expected to be provided under this Asset Management Plan.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Reliability	To maintain function and serviceability of buildings.	Percentage of planned maintenance program completed annually	To be determined	To be determined
		Percentage of planned inspections completed annually	To be determined	To be determined
		Percentage of required Essential Fire Safety Measure inspections completed annually	To be determined	100%
Responsiveness	Timely response to maintenance and repairs service request	Percentage of requests responded to within 3 days.	To be determined	To be determined
Condition	Preserving the condition of buildings	Percentage of condition inspections completed every 4 years.	To be determined	To be determined
Safety	Buildings will be safe to use.	Number of reported safety related incidents per annum.	To be determined	To be determined

Table 7 - Technical Levels of Service

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

1.1.7 Actual Levels of Service

Council recognises the importance that levels of service play in optimising the lifecycle management of infrastructure assets. For the assets covered by this plan, Council continues to work towards achieving the required service levels in practice.

The development and monitoring of actual service level will be one of the foundations of future improvement through the asset management planning process.

3. FUTURE DEMANDS

The objective of asset management is to create, operate, maintain, rehabilitate, and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner. The Asset Management Plan must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs.

3.1 Demand Forecasts and Impact on Assets

The present position and projections for demand drivers, and their potential impacts on future service delivery and use of assets is identified and documented in the following sections.

Demand Factor	Projection	Impact on Assets
Community expectation	It is anticipated that community expectations and desire for higher asset and service standards will continue to escalate,	Our existing infrastructure may not be suitable for purpose over the longer term.
Demographic change	Almost 23% of the shire's population is over the age of 60. The proportion of older people in the community is expected to increase in coming years.	Increased numbers of older people in the community will mean that it is critical that our buildings are accessible so that equity is preserved.
Council financial sustainability	Reduced size of grants from other tiers of government not matching required asset expenditures.	• Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. • Increased need for maintenance and repairs.
Climate change	Highly variable climate and increased frequency and intensity of extreme rainfall and storm events.	• Accelerated degradation of assets and reduced useful life expectancy. • Increased likelihood of natural disasters. • Increased lifecycle costs.
Increasing costs	Limited revenue growth to fund increasing costs for all operations and services including asset provision and maintenance.	• Decreased ability to fund timely renewal and upgrade of poor/very poor condition assets. • Increased need for maintenance and repairs.
Ageing infrastructure	Council has a legacy whereby building assets, based on their age profile, will require renewal or rehabilitation in the near term in order to maintain basic service levels.	Without adequate funding the declining condition of our building assets will result in reduced levels of service and increased risk of failure.

Demand Factor	Projection	Impact on Assets
Tourism	Narrabri Shire has a strong and growing visitor economy. This is expected to continue.	There will be an increased demand for tourism facilities that are provided by Council such as public toilets, caravan parks, etc.
COVID-19 Pandemic	COVID-19 has had many effects on our community and local economy including rate payer and Council income. The pandemic also has also disrupted demand and the way that the community uses our facilities.	We will need to monitor the long-term impacts of the pandemic and the way we manage our buildings in response. Issues include, reduced revenue, changes in use/demand patterns, disrupted plans of work, and supply chain resilience.

Table 8 - Demand Drivers, Projections, and Impact on Services

3.2 Demand Management Strategy

Demand management is not intended to reduce the scope or standard of services provided by an asset, but rather, it is concerned with aligning demand or expectation of service provided by an asset with the available resources to ensure that genuine needs are met, and community benefit is maximised.

Demand management components may include:

Driver	Service Impact from Demand	Demand Management Activities
Community expectation	Existing infrastructure may not be suited to future community expectations	● Consult with the community about what they want and are willing to pay for.
Demographic change	Change in use of recreation services, disability access to assets required	● Incorporate Universal Access design principles into design and construction of Council buildings ● Continually improve access to community facilities across the Shire.
Tourism	Increased demand for facilities	● Review of portfolio of that service and provide amenity to tourists to ensure that they appropriately located and adequate

Table 9 - Demand Management Strategies

3.3 Asset Programs to Meet Demand

Any new assets will be constructed/acquired by Council to meet growth and increased demand in a sustainable manner.

Acquiring new, or upgrading existing assets, will commit the organisation to fund ongoing operations, maintenance, and renewal costs for the entire lifecycle period of required service provided from those assets.

Demand for upgrades to existing roads in the network takes the form of new kerb and gutter, pavement upgrades, sealing of unsealed roads and road and/or intersection improvements. These are often resulting from increased customer expectations in terms of road amenity, leading to demand for items such as extending the seals on unsealed roads.

3.4   Climate Change Adaptation Strategies

The impacts of climate change have the potential to have a significant impact on the assets that Council manages and the services that are provided.

In the context of the asset management planning process, climate change can be considered as both a future demand and a risk. How climate change will impact on assets can vary significantly depending on the location and the type of asset and services provided, as will how Council responds and manages these impacts.

As a minimum, the Council should consider both how to manage existing assets given the potential impacts of climate change and how to create resilience to climate change in any new works or acquisitions.

Opportunities that have been identified to date to manage the impacts of climate change on existing assets are shown in Table 10.

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Temperature	Higher maximum temperatures, lower minimum temperatures	Increased deterioration of externally located assets	Increase monitoring of externally located assets as required
Storm intensity	Increase rainfall and wind intensity during storm events	Increased deterioration of externally located assets	Increase monitoring of externally located assets as required

Table 10 - Managing the Impact of Climate Change on Assets

The way in which Council constructs new assets should recognise that there is opportunity to build in resilience to the impacts of climate change. Building resilience has a number of benefits including:

- Assets will be able to withstand the impacts of climate change.
- Services can be sustained.
- Assets that can endure the impacts of climate change may potentially lower the life-cycle cost and reduce their carbon footprint.
- Potentially increasing asset life and protecting financial investment returns.

Table 11 summarises some asset climate change resilience opportunities.

New Asset Description	Climate Change Impact These Assets?	Build Resilience in New Works
Externally located building assets	Higher maximum temperatures, lower minimum temperatures	• Investigate environmentally sustainable and environmentally resilient assets with lower carbon emission footprint • Increase use of renewable materials where possible

Table 11 - Building Asset Resilience to Climate Change

4. LIFECYCLE MANAGEMEN PLAN

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

4.1 Background Data

1.1.8 Physical Parameters

Our current estate portfolio consists of **297** buildings and other related structures which have a current replacement cost of **$66.5 million**.

These buildings have been developed over a significant period and are used to provide for civic, corporate, commercial and community sporting and recreational uses as well the provision of public toilet facilities to the community.

These assets require significant and ongoing planning and management to meet both stakeholder and legislative requirements within the financial resources available to Council.

The assets covered by this Asset Management Plan are shown in Table 1.

1.1.9 Functional Hierarchy

A functional hierarchy is a means of classifying buildings in terms of their specific function, demand, capacity, use patterns, and potential risk. The hierarchy classification is used to assist in prioritising works programs and intervention responses to remedy defects.

In the management of building and structure assets, higher quality standards and quicker response times are given to the more important buildings and structures in the portfolio. Such prioritisation is an essential part of providing the expected level of service across the entire asset portfolio at the lowest total cost.

To determine the hierarchy level of any particular asset, an assessment can be made of the following indicators:

- **Building Availability** - A measure of the number of days per week that a building is used to provide its particular service.
- **Occupant Duration** – A measure of the duration that the majority of occupants would be in a building.
- **Occupancy Level** - A measure of the total number of people that use a building when it is in use.
- **Community Impact** – A measure of the extent that the community would be impacted if the service provided from a building was permanently not available for any reason.
- **Financial Impact** – A measure of the financial impact on Council if the service provided from a building was permanently not available.

We are working towards developing a formal functional hierarchy for our buildings and other structures, **Error! Reference source not found.** sets out a recommended approach including a d efinition of each classification level. Once we have confirmed our approach, we will properly document this and apply the hierarchy to our buildings. This will be an important step towards preparing levels of service for our facilities.

Classification	Functional Definition
A- High	- Very high use - High level of presentation - Significance at municipal level - Critical to Council operations and service delivery - Key heritage or icon - Must meet stringent, special requirements
B - Medium	- High use – open to the public on a regular basis - Significance at town level - Important to Council operations or service delivery - Need to meet special requirements
C - Low	- Low use – Open to the public only 1 day or as required on an hourly basis - Significance at locality level - Non-critical to Council operations or supports service delivery - Ancillary to main function - Can operate under basic conditions
D - Very Low	- Very low use open to public or short durations only - Significance at locality level - Non-critical to Council operations or service delivery - Ancillary to main function - Can operate in very basic conditions
E – Minor or Obsolete	- Not used by public - Exceeds nominated level of service - Exceeds Committee of Management requirements or capacity to replace it. - Not critical to the service being delivered

Table 12 - Asset Functional Hierarchy: Buildings and Other Structures

1.1.10 Asset Classification Framework

Buildings are complex assets that consist of a range of different components each with varying useful lives.

As such, it is not particularly meaningful to assign a single condition score to a building. Condition scores have been derived for the building component groups shown in Table 13 as applicable to each building.

Component Group	Description
Envelope	Structural walls, window frames and windows, façade, cladding, and fixtures. Electrical, plumbing and transport services have also been included within this component.
Fit out	Internal walls (plaster covered stud walls, etc) and floor coverings.
Floor	Floor structure and footings.

Component Group	Description
Roof	Roof frame, cladding, and internal ceilings
Services	Comprises air conditioning, mechanical ventilation ducts etc. and fire controls such as alarm installations, hydrant installations and hose reels, cupboards, etc.

Table 13 - Building Components

We are presently reviewing the componentisation of our buildings in our Asset Management Information System and will week to implement improvements so that our buildings are appropriately componentised to suit both strategic asset management and operational needs.

1.1.11 Asset Condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for strategic planning of Council's budget.

Council measures the condition of its assets using a standardised 1 to 5 grading system.

A summary of the condition rating scale used for the assets covered by this Asset Management Plan is detailed in **Table 14.** Council's condition grading system follows good practice guidance as provided by various industry standards including the *International Infrastructure Management Manual.*

Condition data for Council's buildings and other structures is recorded in its asset register and is used for renewal modelling, capital works planning, and financial reporting.

Score	Condition Rating	OLG Condition Category	Generalised Description of Asset Condition
1	Very Good	Excellent/ Very Good	Planned maintenance schedule only
2	Good	Good	Minor maintenance required, planned maintenance schedule
3	Fair	Satisfactory	Significant maintenance required
4	Poor	Poor	Significant renewal/rehabilitation required
5	Very Poor	Very Poor	Physically unsound and/or beyond rehabilitation.

Table 14 - Condition Rating System

The following figure(s) summarise the condition scores to show the distribution for major building components groups and structure types.

Condition scores have been derived from the Remaining Service Potential Score (RSP Score) assigned by our Valuer during the building valuation completed in 2019. The RSP Score is used to determine the remaining service potential of an asset considering physical deterioration, functional obsolescence, and economic obsolescence.

While this information is useful in understanding the performance of buildings and other structures, our approach in future will be to complete specific condition inspections following the methodology set out in the *Institute of Public Works and Engineering Australasia Building Condition and Performance Assessment Guidelines.* This will provide a detailed understanding of the condition of our buildings and their components.
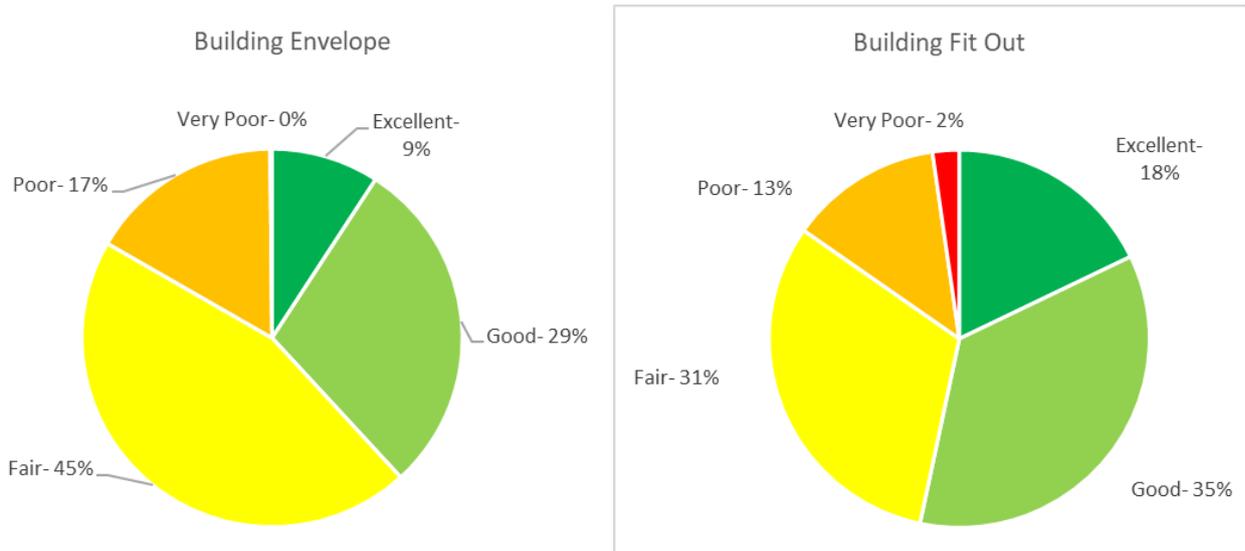
Condition Profile – Envelope

Condition Profile – Fit Out
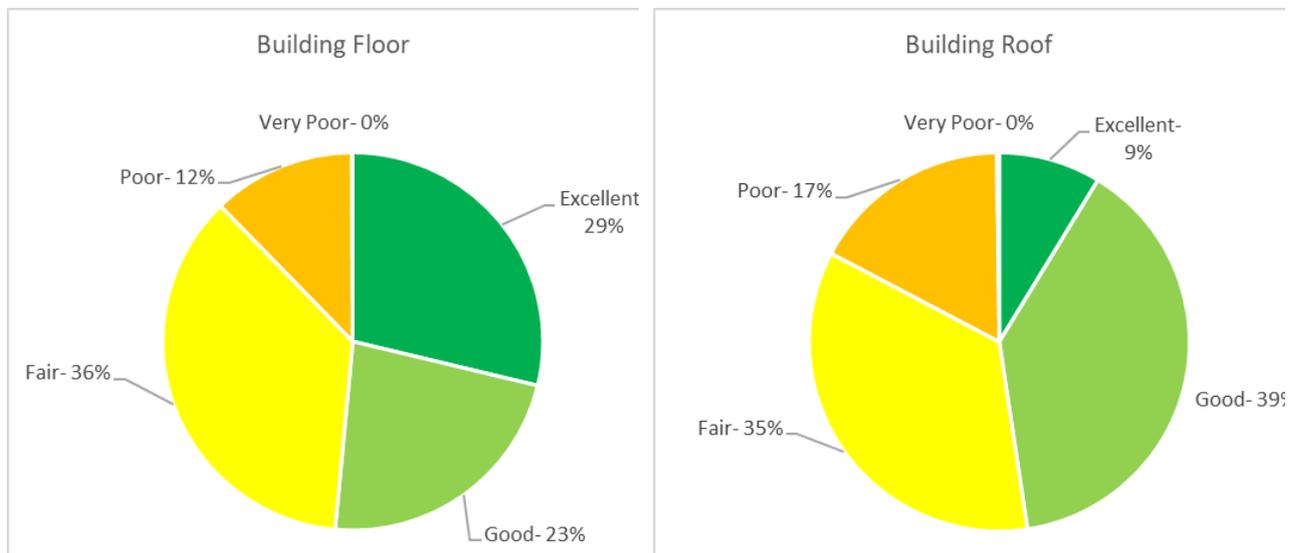
Condition Profile – Floor

Condition Profile – Roof
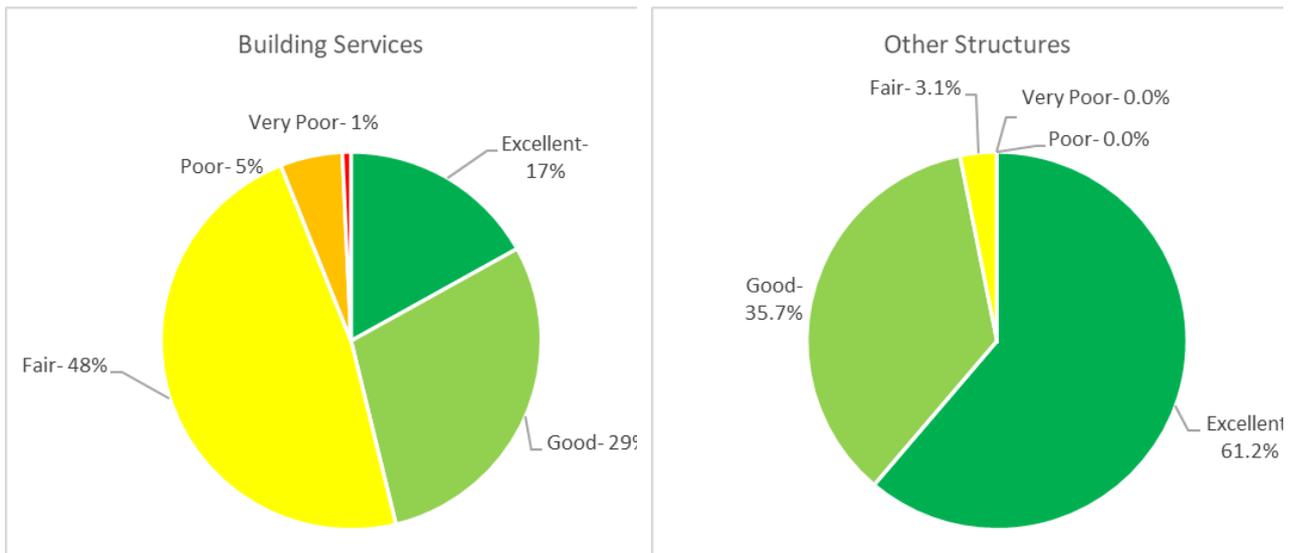
Condition Profile – Services   Condition Profile – Other Structures

Figure 2 – Condition Profile: Buildings and Other Structures

What does this mean?

Figure 2 indicates that according to the most recent condition audit, overall performance of the Council's building portfolio is in line with expectations for a large rural shire with a wide spectrum of building types and ages.

Our buildings are generally in a good and serviceable condition. This demonstrates that to date we have been managing the maintenance and renewal of our buildings in an effective manner.

Maintaining this level of service will become increasingly challenging in an ongoing constrained funding environment as the Council's buildings age and deteriorate and service demands increase.

The condition of our buildings and other structures is further summarised in **Table 15** which is matched to reflect Council's reporting requirements:

Asset Type	Asset Condition as % of GRC				
	Excellent/ Very Good	Good	Satisfactory	Poor	Very Poor
Buildings	16.3%	31.1%	39.1%	12.8%	0.7%
Other Structures	61.2%	35.7%	3.1%	0.0%	0.0%

Table 15 - Condition Summary: Buildings and Other Structures

Condition is not the only consideration as to the suitability of a building for any particular use. Its ability to accommodate the number of people wanting to use it and for the building to provide the required features and facilities is key. It is common that to meet these latter needs, building extensions and/or upgrades will be triggered well before the condition deteriorates to the level that renewal is required. For this reason, it is important to track the capacity and functionality of each building in addition to its Condition.

Asset capacity is the ability of an asset to provide a specific service. Functionality, or fit-for-purpose, is how suitable an asset is for delivering that service. These two parameters provide a means of judging the value of a building based on service delivery potential now and into the future.

Further thought is required to assessing the current capacity and functionality of buildings as part of future condition assessments. Combined with knowing the condition of a building, understanding its ability to support desired services would be helpful in determining long-term investment priorities.

4.2   Operations and Maintenance Plan

Operations and maintenance plans are designed to enable existing assets operate to their service potential over their useful life. This is necessary to meet service standards, achieve target standards and prevent premature asset failure or deterioration.

Council's objectives in maintaining and operating building assets are:

- Maintain assets so that they are safe, serviceable, hygienic, and well presented to the satisfaction of Council and the community
- Maintain and preserve the functionality and value of the existing assets.
- Provide and maintain a safe environment for the community within the constraints of Council's financial capacity and resource capability, while displaying a reasonable 'duty of care'.
- Ensure the provision of excellent customer service and that customer requests are responded to quickly and efficiently.

Operations are those activities that keep an asset appropriately utilised. Operations are considered to have no effect on asset condition and include tasks such as:

- Maintenance Inspections.
- Cleaning and removal of debris from gutters and downpipes.
- Pest control.
- Security services and access management.
- Refuse/waste collection and disposal.
- Consumables and utilities.

Maintenance of assets is carried out to ensure that our buildings achieve their service potential while meeting the needs of users. This is achieved by providing an optimum level of maintenance and care in a financially and environmentally sustainable manner. Typical maintenance activities include:

- Scheduled servicing of mechanical plant and other essential equipment.
- Testing of emergency warning systems.
- Inspection and testing of essential fire safety measures (e.g., fire extinguishers, emergency lighting, exit lights, etc.)
- Repainting of internal and external finishes.
- Scheduled inspection and maintenance of wastewater treatment systems; and
- Maintenance of grease traps.

Both operations and maintenance can be planned or reactive activities. Planned or cyclical tasks are programmed to occur at set times or frequencies throughout the year, while reactive tasks are undertaken in response to service requests or due to unforeseen asset failures or system interruptions.

1.1.12 Operations and Maintenance Arrangements

Maintenance of Council's buildings is coordinated and delivered by Council's Property Management team with the assistance of various qualified and experienced tradespeople.

1.1.13 Maintenance Standards

The standard of work for repair and maintenance of Council's buildings is that typically provided to ensure that the works carried out are suitable for purpose.

All materials used in the maintenance and repair of Council's buildings comply with all relevant technical standards.

Maintenance and repair work carried out by Council takes into consideration relevant Australian Standards and the National Construction Code.

Assessment and prioritisation of maintenance is undertaken by operational staff using experience and judgement and aligns with available budgets and resources.

1.1.14 Inspections

For Council to carry out effective planning and competent management of building portfolio, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole portfolio.

Council's inspection activities can be grouped into the following categories based on definition and purpose:

Inspection Type	Description	Current Status	Responsibility
Planned Inspections	Visual investigation to assess for hazards or maintenance issues that do not meet Council's levels of service or risk management objectives.	Planned inspections have commenced.	Property Management
Reactive Inspections	Reactive inspections are initiated generally by requests for maintenance received from asset users.	Inspections or site assessments are undertaken as required.	Property Management
Condition Inspections	A condition audit is a systematic inspection and identification and recording of the physical and functional adequacy of assets.	Detailed condition inspections are yet to be completed for Council's buildings.	Asset Services
Essential Fire Safety Measure Inspections	Inspection and testing of active and passive fire safety measures as required under the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021.	All inspections and reporting completed to comply with regulatory requirements.	Property Management

Table 16 - Asset Inspection Type Summary

1.1.15 Future Operation and Maintenance Costs

Future operation and maintenance costs are forecast to trend in line with the value of the asset stock as shown in Figure 3. Note that all costs are shown in current 2021/2022-dollar values (i.e., real values).
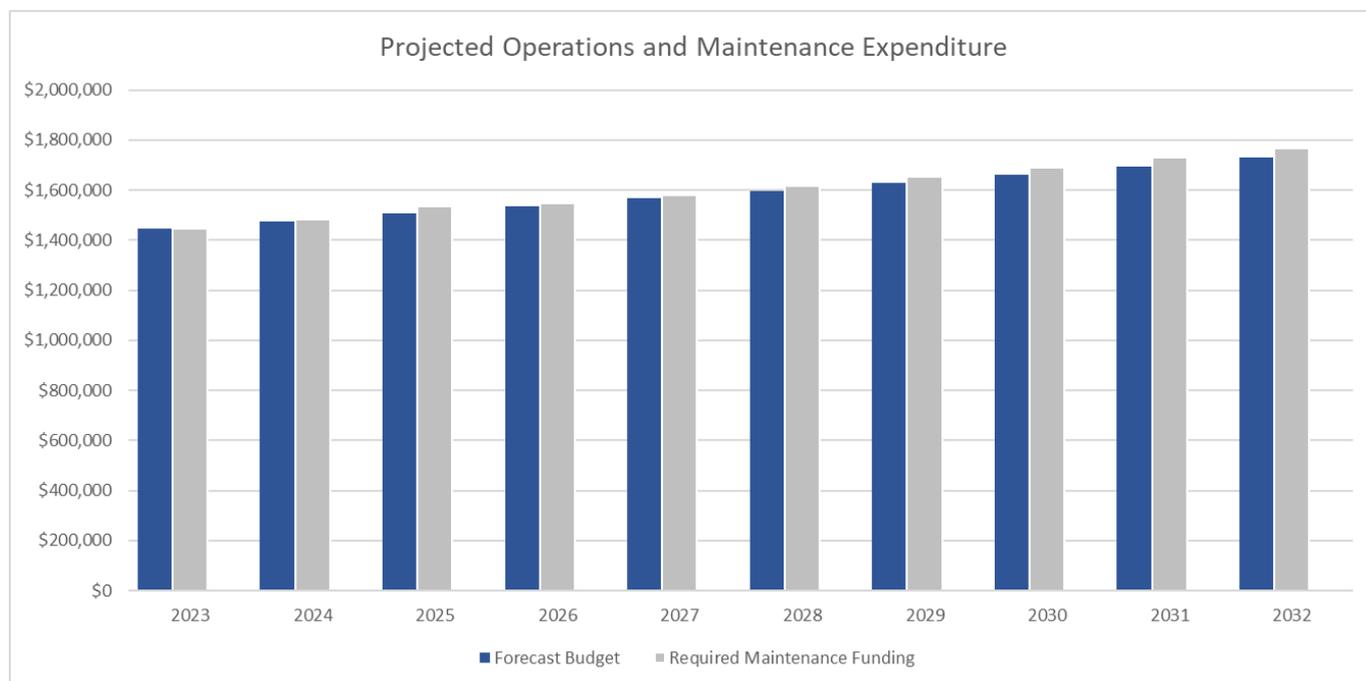

Figure 3 - Projected Operations and Maintenance Expenditure

What does this mean?

Projected operations and maintenance funding requirements are forecast to trend in line with current expenditure and future asset base.

Figure 3 outlines the forecast operations and maintenance budgets based on the understanding of the current condition and performance of the portfolio. The building operations and maintenance budget for 2021/2022 is **$1.42 million**. The forecast facility operations and maintenance allocations have been assumed to increase in line with Council's Resource Strategy plus provision for new assets.

The total operations and maintenance budget over the next 10-years starting 2022 is **$15.84 million**. The required operations and buildings budget has been predicted to be approximately **$16.11 million**. This amount has been calculated as a percentage of the total replacement value of the building portfolio according to industry benchmarks.

The predicted renewal amount does not include any provision for potential backlog maintenance work. Presently Council is preparing detailed Facility Management Plans for individual buildings and groups of buildings of like function. The purpose of these Plans is to identify work needs and priorities and cyclical maintenance and operations expenditure. This will help to better understand the full lifecycle costs of our buildings. These will be used to update Asset Management Plan once each of the Facility Management Plans have been finalised.

As our facilities age and deteriorate and major renewal or upgrade works are deferred, this will place increased pressure on the maintenance and capital expenditure effort required to ensure that facilities are safe, compliant, and meet basic functionality needs. Council will aim to establish a review

process to identify our facilities operations and maintenance funding requirements and allocations to ensure that it is adequate to cover program and service level needs.

4.3   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 an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project level.

As a general principle the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its performance, rate of deterioration, and a prediction of the optimum time to renew. As the rate of repairs increase a prediction can be made about the optimum time to renew an asset to keep the cost of ownership at the optimum level.

1.1.16 Renewal Standards

Renewal work is carried out in accordance with the current standards and specifications for building works described elsewhere in the Asset Management Plan.

1.1.17 Renewal Ranking Criteria

In general, renewal works are prioritised and planned by assessing the following considerations:

- Safety issues.
- Physical condition.
- Risk and asset criticality.
- Community/user feedback.
- Location and use type and patterns.

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure.
- Have high use and subsequent impact on users would be greatest.
- Have a total value representing the greatest net value.
- Have the highest average age relative to their expected lives.
- Are identified in the AM Plan as key cost factors.
- Have high operational or maintenance costs.
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 17.

Criteria	Weighting
Quality (Risk of Failure)	30%
Condition	30%
Operating/Maintenance/Lifecycle Costs	20%
Functionality	20%
Total	100%

Table 17 - Renewal and Replacement Priority Ranking Criteria

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

1.1.18 Future Renewal and Replacement Expenditure

Renewal demand and expenditure forecasts for the assets covered by this plan are summarised in Figure 4. These forecasts have been extrapolated from existing finance data and are presented as long-term projections to provide input into Council's Long Term Financial Plan.

The following graph shows a comparison between the:

● Level of funding required to renew Council's buildings to achieve its service level objectives; and
● The amount of funding which Council is projected to commit to renewing these assets.
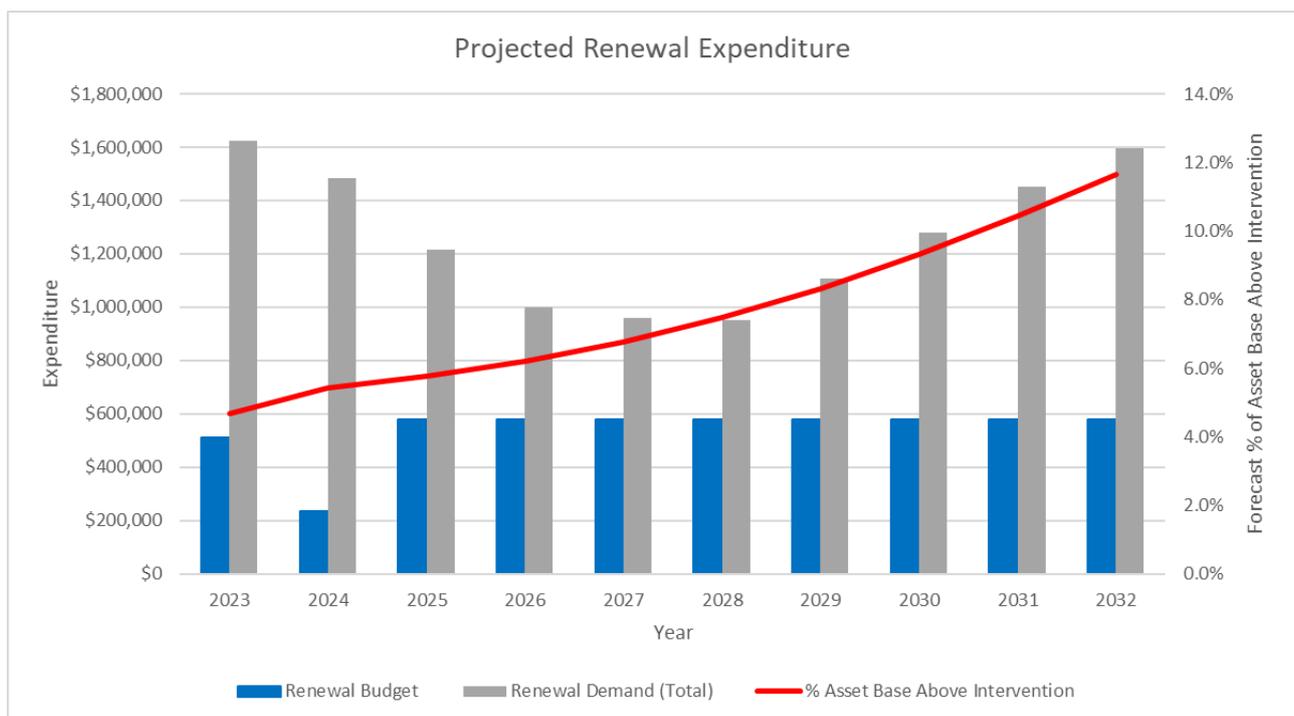
Figure 4 - Projected Capital Renewal and Replacement Expenditure

Figure 4 values are in current (real) dollars.

What does this mean?

Future building renewal expenditure has been derived using the 2021/22 Capital Works Budget and a draft 10-year Capital Works Program. The forecast renewal budgets have been extrapolated from these two data sources.

According to the projections, total allocation for building renewal over the next 10 years is a total of **$5.39 million.** Based Council's latest condition data from 2019, the total expenditure required to renew Council's buildings for the same period is predicted to be **$12.67 million** This means that there is a total shortfall, or renewal gap, of approximately **$7.28 million.**

When considering the funding projections made spending on renewing or replacing existing building assets is expected to not keep pace with their rate of deterioration. This will result in a cumulative renewal gap that grows year upon year creating an adverse situation that will affect the performance of buildings.

This effect of the projected shortfall in renewal funding can be measured by the percentage of the building portfolio that is above the renewal intervention level. This represents a weighted average of the whole of the building portfolio above the renewal intervention level based on the condition and age of their various components.

From Figure 4 above, the percentage of the asset base above the intervention level measured after the first year of the analysis (2023) is **4.7%**. Using Council's projected renewal expenditure matched with standard rates of asset deterioration, the percentage increases to **11.7%** at year 10 of the analysis period (2032). Above intervention means that an asset is approaching an unserviceable state and may no longer be fit for purpose.

Council understands the impact of having a portfolio of buildings and other structures in declining condition means for users and the community. This would include clearly defining affordable levels of service so that the investment in asset renewal can be optimised to achieve agreed community outcomes.

Council will also need to make sure that it takes a balanced approach to investing in buildings. Council is faced with increasing pressure to fund asset improvements and new assets to meet demand to meet changing community expectations. At the same time existing assets (which is the majority the asset base) requires consistent allocations to responsibly manage our ongoing renewal liabilities.

1.1.19 Renewal Modelling Assumptions

The analysis to determine Council's future asset renewal requirements is based on the best available information held at this time. The future funding forecasts will be revised and refined to best represent the performance of the asset base as the maturity of Council's asset management practices improves.

These renewal funding projections are based on the following assumptions:

- The renewal costs are based on the asset data register as of 30 June 2021.
- Asset quantities within the asset register are assumed to be correct.
- Condition '4 – Poor' has been as used as the asset condition renewal intervention level for all buildings and other structures.

- Modelled outcomes are derived using the Moloney Renewal Model and are therefore subject to the limitations of that model and data is used in it, which includes assumed performance of the asset types and trigger intervention levels.
- Useful Service Lives derived from the asset register are assumed to be a reasonable estimate of the life of the assets.
- Condition scores have been derived from the Remaining Service Potential Score (RSP Score) assigned by during the building valuation completed in 2019. The RSP Score is used to determine the remaining service potential of an asset considering physical deterioration, functional obsolescence, and economic obsolescence.
- Service levels are based on a technical assessment and may not reflect community expectations or the organisations goals and objectives.
- All projections are in present dollar value.
- There is no growth in asset base.
- Future renewal funding levels are derived from the 2021/22 Capital Works Budget and draft 10-year Capital Works Program.
- These projections only represent future asset renewal requirements at an overall network level. This modelling does not provide project level assessments or programs.

4.4 Acquisition and Upgrade Plan

New works are those works that create a new asset that did not previously exist or works that upgrade or improve an asset beyond its existing capacity or performance. They may result from growth, changes in expectations, or social or environmental needs. Assets may also be acquired at no cost through developer contributions.

Within the context of building assets, new asset, or upgrade creation includes:

- Those works that create a new asset that did not exist in any shape or form, e.g., a sports pavilion, etc.
- Works that improve an existing asset beyond its existing capacity or performance.
  - o An extension to an existing asset.
  - o Sustainability improvement projects.
  - o Service or compliance upgrades.

There are occasions when Council is required to upgrade an asset because of changing demand or use requirements. In such instances, the project is scrutinised closely and is considered as part of the annual budget planning process.

1.1.20 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor/director or community requests, proposals identified by strategic plans or partnerships with other organisations. Verified proposals are ranked by priority and available funds and are scheduled in future works programmes.

The prioritisation of asset improvement works is undertaken in accordance with the following criteria to ensure alignment with Council's strategic direction and to deliver maximum and affordable community benefits.

Criteria
Use by community, safety concerns, Future Demand

Table 18 - Asset Improvement Priority Ranking Criteria

Council is required to further develop a detailed criteria to determine the priority for the investment of funding in the expansion and improvement in the building portfolio. Ranking criteria along with the applicable evaluation methodology will be developed as part of future revisions of this Asset Management Plan.

1.1.21 Standards and Specifications

As with replacements and renewals, where new assets are created, they are designed using all relevant design codes, Australian Standards, and the National Construction Code.

Council aims to use materials that achieve the greatest asset life while trying to minimise maintenance costs and are environmentally sustainable.

1.1.22 Summary of Future Acquisition Expenditure

Projected acquisition (i.e., upgrade, and new) expenditures are summarised in Figure 5. All amounts are shown in current (real) dollars.

When Council considers discretionary capital expenditures for new or upgraded assets, it is essential to establish the consequential recurring operational and maintenance costs that will occur once the new or upgraded assets become operational. Understanding life cycle costs is part of being fully informed of future liabilities. As new projects are brought forward for consideration in annual budget deliberations, they will have to include an assessment of these ongoing operational (recurrent) costs to be presented to Council as part of the overall cost projections.
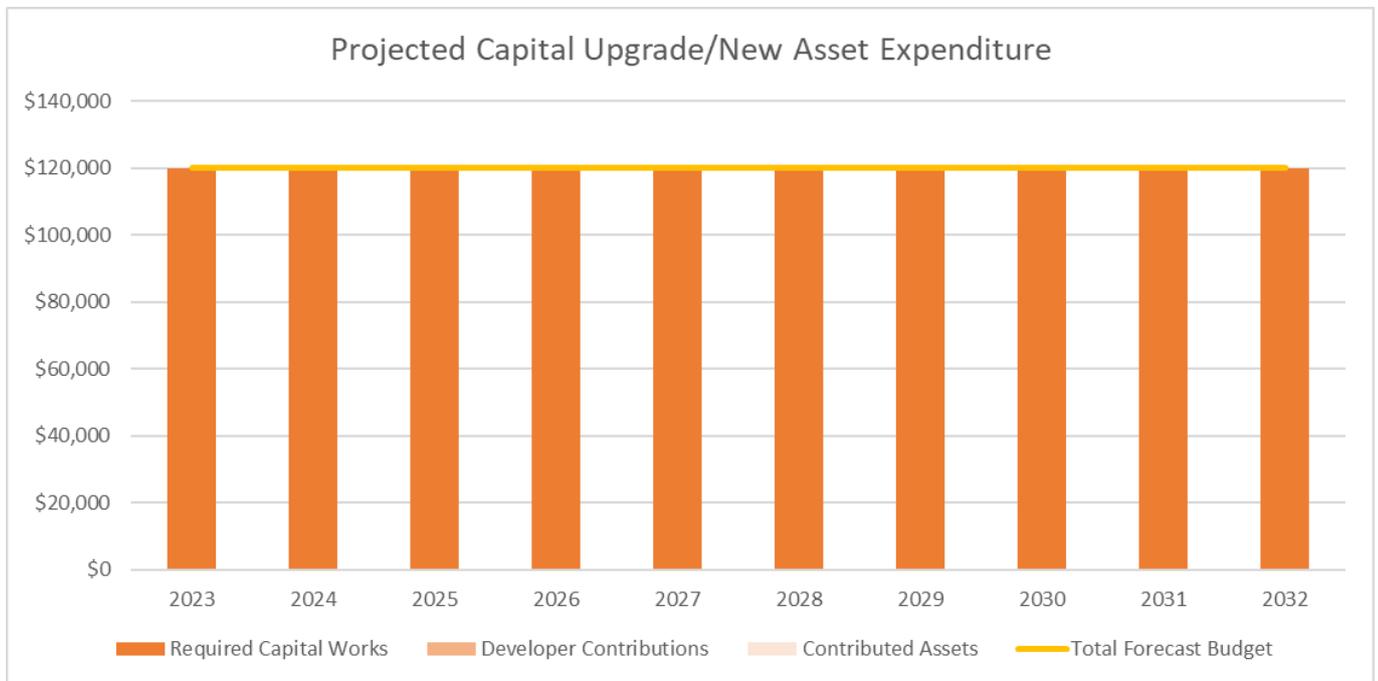
Figure 5 - Projected Asset Acquisition Expenditure

What does this mean?

Similar to projected renewal expenditure, future acquisition allocations have been derived using the 2021/22 Capital Works Budget and a draft 10-year Capital Works Program. The forecast acquisition budgets have been extrapolated from these two data sources.

Figure 5 indicates both the forecast budget and demand for upgrade, new, and expansion works associated with Council's facilities. These two expenditure profiles are matched on the basis that the projected budget has been used as a measure of the required upgrades that are required to support service improvements.

The total investment required to upgrade or provide new buildings at this point is a total of **$1.2 million** over the next 10 years. Our Long-Term Financial Plan and Capital Works Program will be responsive to facility upgrades or new buildings as opportunities arise. For instance, major there have been some initial discussions regarding providing a new terminal building at the Narrabri Airport. There are no specific details on this initiative at this time however the timing of major projects such as this will be determined by our level or preparedness and availability of necessary funding.

Council acknowledges that it has more work to do to determine what long-term investment is needed to make sure buildings are fit for purpose and of a contemporary standard. Council is beginning to understand this through the Facility Management Plans which are being prepared, the outputs of which will inform our long-term capital works planning.

Expenditure on asset acquisition in the capital works program is considered for inclusion within Council's annual Capital Works Program.

While the provision of new and upgraded assets is important in maintaining and enhancing services to the community there must be a clear business justification. Evaluation of proposals for new and upgraded assets needs to be underpinned and informed by sound business, investment, and risk assessment practices to maximise public value from infrastructure investment.

1.1.23 Summary of Asset Expenditure Requirements

The financial projections from this Asset Management Plan are shown inFigure 6.

Key Financial Performance Indicators for Current Projected Funding	
Total Lifecycle Costs over next 10 years (projected demand)	$29,915,939
Total Lifecycle Budget over next 10 years (from Long Term Financial Plan)	$22,426,192
Total Lifecycle Funding Shortfall	$7,489,747
Average Lifecycle Funding Shortfall per annum	$748,975
Percentage Lifecycle Funding Being Met	75%

This covers the full lifecycle costs over the next ten (10) years to sustain current levels of service. Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates the funding that is forecast to be available.

The gap between these informs the discussion on achieving the balance between services, costs, and risk to achieve best value outcomes.
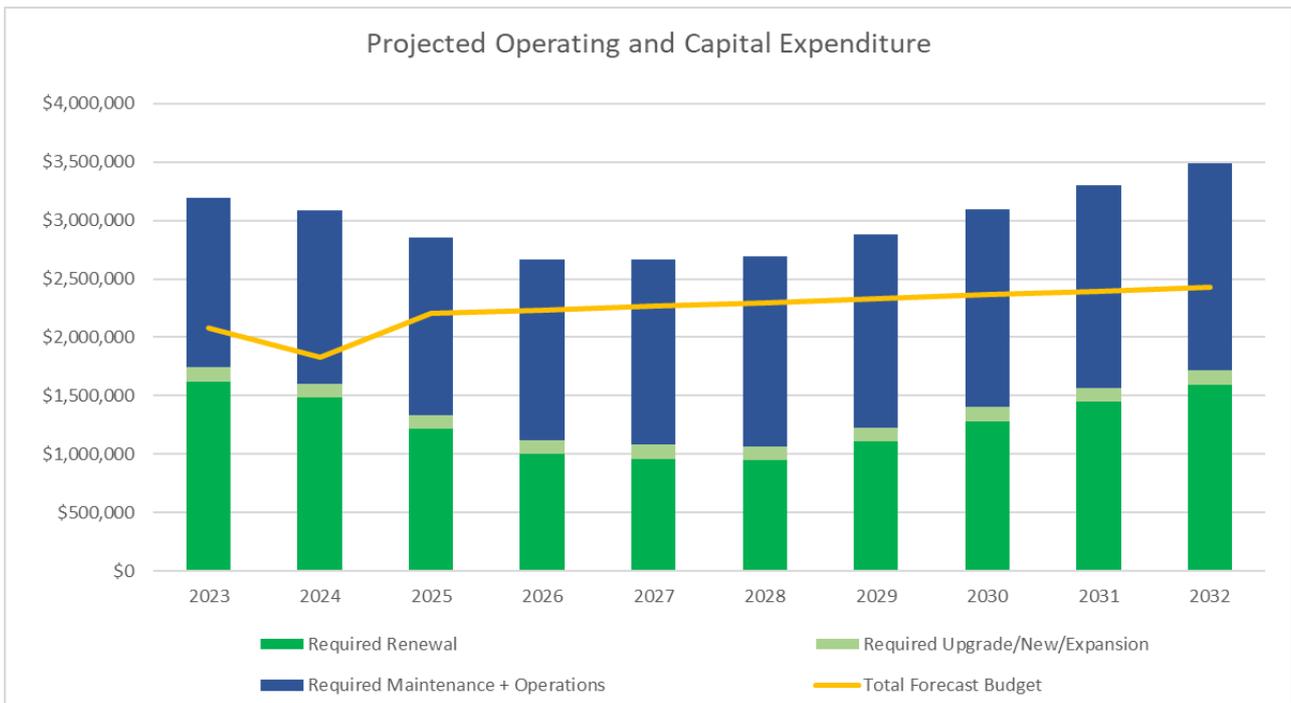
Figure 6 - Projected Operating and Capital Expenditure

What does this mean?

According to the projected allocations assumed from current financial information that is available, Council is faced with a shortfall in in total funding when compared to the level of funding that is required for Council's to sustain current levels of service.

Through the facility audits we have commenced; Council will establish a better understanding of the performance of our buildings and the future needs to improve the portfolio. This will provide greater clarity on how much we need to spend on buildings over the next 10 years.

4.5   Disposal Plan

This includes activity associated with disposal of decommissioned assets including sale, demolition, or relocation.

While there is currently no strategy in place to dispose of Council's building and other structures, we are actively seeking ways to optimise the use of our facilities in conjunction with our community. This includes looking for opportunities to dispose, collocate services, or adaptively re-use facilities with a view to maximising their function.

5. RISK MANAGEMENT PLAN

The purpose of this section is to describe the basis of our strategic risk and investment policies and the way we will manage risk associated with our buildings and other structures.

5.1 Risk Management Process

Our risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines and HB 436:2013 – Risk Management Guidelines.

The Framework is designed to provide the architecture for a common platform for all risk management activities undertaken by us and is used to identify specific risks associated with our delivery of services and management of assets.

The objective of the risk management process with regards to our 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 us. The risk assessment process identifies and assesses risks, develops a risk rating, and develops a risk treatment plan for non-acceptable risks.

1.1.24 Risk Assessment

Network or system risks assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified by our asset risk assessment process are summarised in the Table 19.

Risk Event	Risk Rating (VH, H)	Risk Treatment Mitigation Practice	Residual Risk*
Buildings deteriorate to a lesser service standard and higher risk situation	High	• Current asset register • Asset Management Information System • Lifecycle management plans • Continuing staff development	Medium
Damage to buildings as a result of major storm events	High	• Assistance from natural disaster declarations • Maintain insurance policy	Medium
Disruption to services due to failure of key mechanical or electrical systems	High	• Inspections and response procedures • Prioritisation of maintenance and renewal activities • Identification of critical assets	Low
Damage to or loss of building due to fire due to malfunctioning fire services	High	• Inspections of Essential Fire Safety Measures • Evacuation procedures • Maintain insurance policy	Low

Risk Event	Risk Rating (VH, H)	Risk Treatment Mitigation Practice	Residual Risk*
Buildings do not adequately support service delivery or meet user needs	Medium	• Service planning • Monitoring utilisation patterns • Community satisfaction surveys and customer feedback	Low

Table 19 - Infrastructure Risk Register: Buildings and Other Structures

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

Our focus is to manage risk to effectively achieve asset management, service delivery, and cost performance objectives.

Council will continue to set service-based targets for assets to balance the risk of asset failure and the associated asset reliability impacts with cost.

5.2   Critical Assets

Critical assets are defined as those which have a high consequence of failure or reduction in service.

It is important to identify critical assets as well as the critical failure modes. This makes it possible to target and refine maintenance plans, capital expenditure plans, and investigative activities at the critical areas.

Council have yet to formally identify critical components of our portfolio of buildings and other structures. A criticality framework will be developed as our asset management planning processes mature.

This framework will be embedded as part of future revisions of this Asset Management Plan.

5.3   Risk Identification and Management Practices

1.1.25 Asbestos

Council maintains a current Asbestos Register in accordance with the *Work Health and Safety Regulation 2017* (NSW). The Asbestos Register contains information that identifies the presence and location of asbestos within Council's buildings.

All known Asbestos Containing Materials (ACMs) in readily accessible locations in our buildings are labelled to indicate the presence of asbestos.

Under the *Work Health and Safety Regulation 2017,* we also need to have an Asbestos Management Plan in place. The Asbestos Management Plan provides an overarching framework or procedure for the effective management of occupational health and safety associated with ACMs. This is to document the processes that need be followed to ensure compliance with legislation and to eliminate or minimise the risks that asbestos may pose to our staff, building users, contractors, and visitors. We will need to prepare an Asbestos Management Plan to make sure that we satisfy our regulatory obligations.

1.1.26 Work Health and Safety Compliance

We have a legal duty to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the carrying out of its business. Workers include contractors and subcontractors.

From time to time, we appoint contractors to manage and carry out work on our behalf, however in doing so we cannot contract out our work health and safety duties.

Contractor work health and safety obligations are outlined as part of our contracts where it is relevant, and we monitor the performance and level of compliance of our contractors when they are working for us.

6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial forecasts made will be refined as we improve our understanding of future asset performance and required levels of service.

6.1 Financial Statements and Projections

1.1.27 Asset Valuations

The value of the assets covered by this Asset Management Plan as recorded in our asset register as of 30 June 2021 are shown below.

Current Replacement Cost	$66.52 million
Accumulated Depreciation	$18.52 million
Depreciated Replacement Cost (Fair Value)	$47.00 million
Annual Average Asset Consumption	$1.15 million

Fair value for buildings, is generally calculated according to market value and is determined at whole of building or facility level.

1.1.28 Asset Sustainability

Council uses the following indicators to measure asset sustainability:

- Asset renewal funding ratio, and
- Projected funding requirements compared with budget allocations (Long Term Financial Plan).

1.1.29 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio	43%

The Asset Renewal Funding Ratio is the most important indicator and shows that over the next 10 years we expect to have **43%** of the funds required for the optimal renewal and replacement of assets according to our current funding projections.

1.1.30 Long Term Financial Planning

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide agreed levels of service over the next 10 years.

These projected funding requirements may be compared to the allocations projected from our current funding projections to determine possible funding shortfalls.

The projected operations, maintenance and capital renewal expenditure required over the 10-year planning period is *$2.89 million* on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is *$2.12 million* on average per year giving a 10-year funding shortfall of *$749K* per year.

This indicates **74%** of the projected expenditures needed to provide the services documented in the asset management plan. This represents Council's efforts in maintaining existing levels of service and excludes the provision of new and upgraded assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures, and financing.

1.1.31 Projected Expenditures for Long Term Financial Plan

Table 20 shows the projected expenditures required to inform the Long-Term Financial Plan. Expenditure projections are in 2021/22 real values.

Year	Renewal	Acquisition	Maintenance and Operations
2023	$1,622,649	$120,000	$1,446,721
2024	$1,483,239	$120,000	$1,481,922
2025	$1,217,502	$120,000	$1,515,206
2026	$1,000,903	$120,000	$1,549,238
2027	$958,424	$120,000	$1,584,036
2028	$949,409	$120,000	$1,619,617
2029	$1,108,229	$120,000	$1,655,999
2030	$1,281,315	$120,000	$1,693,200
2031	$1,449,897	$120,000	$1,731,237
2032	$1,597,064	$120,000	$1,770,130
Total	**$12,668,633**	**$1,200,000**	**$16,047,306**

Table 20 - Projected Expenditures for Long Term Financial Plan

The amounts shown in Table 20 the funding needed to fully fund the total lifecycle costs determined through the development of this Asset Management Plan. These amounts need to be verified against affordable levels of expenditure as determined through our Long-Term Financial Plan.

Asset Management Plans and Long-Term Financial Plan are the foundation of the long-term resource planning. These plans work together to ensure that expectations are achievable and sustainable.

Council is working to improve the integration between our Asset Management Plans and Long-Term Financial Plan.

The Asset Management Plans inform the Long-Term Financial Plan by identifying the amounts that are required to renew, maintain, and improve our assets over their lifecycle.

The Long-Term Financial Plan determines how much funding is available to support our assets. It incorporates knowledge of the condition of our assets, and risk assessment issues, as well as the impact of reviewing and setting intervention and service levels for our infrastructure.

6.2   Funding Sources

Funding for assets is provided from Council's annual budget and Long-Term Financial Plan.

Council's financial strategy determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

Council uses several different funding sources to maintain, renew and improve our buildings. These are:

Activity	Funding Source
Maintenance and Operations	● Council Funds ● User fees and charges
Renewal	Council Funds
Capital Improvement **(i.e., new, upgrade, and expansion)**	● Council Funds ● External grant opportunities

Table 21 - Funding Sources

6.3   Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Financial projections are forecast on present day dollars as of 30 June 2021.
- Staffing needs are resourced adequately.
- Current levels of service reflect community needs.
- Future funding levels are derived from the 2021/2022 Capital Works Budget and draft 10-year Capital Works Program.
- No known legislative changes or other influences that will impact on or demand a change in level of service and associated funding throughout the period of the plan
- Provision for new works is based on phased implementation of new and upgrade needs to meet future growth.
- Projected renewal required to achieve overall asset condition grade of 'Poor" or better.
- Increases in operating and capital budgets are consistent with the Long-Term Financial Plan.

6.4   Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a five (5) level scale in accordance with Table 22.

Confidence Grade	Description
A – Highly reliable	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B - 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 ± 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 ± 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 ± 40%
E - Unknown	None or very little data held.

Table 22 - Data Confidence Grading System

The estimated confidence level for and reliability of data used in this Asset Management Plan is ***C - Uncertain*** at this stage. The implementation of the improvement actions identified will result in increased levels of confidence in future revisions of this Asset Management Plan.

7. PLANNED IMPROVEMENT AND MONITORING

7.1 Status of Asset Management Practices

Council currently uses the following corporate information systems for recording relevant asset data and information:

Module	System
Customer Request Management	TechOne
Financial/Accounting	TechOne
Records Management	TechOne
Mapping (GIS)	Intramaps
Asset Register	TechOne
Strategic Asset Management	TechOne Strategic Asset Management Module (yet to be implemented for building assets)
Mobile Solutions	TechOne mobile platform (yet to be implemented for building assets)
Works Management	TechOne (yet to be implemented for building assets)

Table 23 - Overview of Corporate Systems

The asset management information system underpins asset management capacity and capabilities and is a key source of information for decision making, coordination of operations, and performance reporting.

7.2 Improvement Plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table 24.

Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
1	Continue work to consolidate all building and other structure asset related data into TechOne so that there is a centralised asset register providing a source of reliable information.	Asset Services	High	Internal/ External	✓	✓	✓	
2	Review the current register for 'other structures' to ensure that assets are assigned to the appropriate asset class and incorporated into the relevant Asset Management Plan.	Property Services Asset Services	High	Internal	✓			
3	Continue to prepare Facility Management Plans for individual buildings or groups of buildings with similar functions. Plans should identify works needs and priorities and cyclical maintenance and operations expenditure to understand full lifecycle costs. Consideration should be given to having these plans cover a 10-year period and include building improvements required to meet future service needs.	Property Services	High	Internal	✓	✓	✓	
4	Continue to collect and refine building asset data (including condition) suitable to inform strategic and operational analysis and decisions. Also include whole of building considerations in future data collection activities (e.g., condition, capacity, function, sustainability)	Property Services Asset Services	High	Internal/ External	✓	✓		

Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
5	Confirm the functional hierarchy system for Council's buildings and include as an attribute information in the asset register.	Property Services Asset Services	Medium	Internal	✓			
6	Reviewing the componentisation used for Council's buildings to ensure that it is appropriate for both strategic asset management and operational needs.	Property Services Asset Services	High	Internal/ External	✓	✓		
6	Document community levels of service through engagement with public. Community service levels should then be translated into technical levels of service.	Property Services Asset Services Governance and Risk	Medium	Internal/ External		✓	✓	✓
7	Establish processes to monitor and report maintenance delivery performance against adopted maintenance standards.	Property Services Asset Services	Medium	Internal	✓	✓		
8	Review current funding allocations made to building maintenance and operations to ensure that it is sufficient to deliver current levels of service.	Property Services Asset Services Governance and Risk	Ongoing	Internal	✓	✓	✓	✓
9	Review OPEX cost allocation framework to capture maintenance and operations costs at activity level.	Property Services Finance	High	Internal		✓		

Item No.	Task	Responsibility	Priority	Resource Type	2023	2024	2025	2026
10	Prepare an Asbestos Management Plan in accordance with the *Work Health and Safety Regulation 2017*.	Property Services Governance and Risk	High	Internal/ External	✓			
11	Formalise evaluation criteria and process to prioritise and plan capital improvement and renewal projects	Projects and Assets	Medium	Internal		✓	✓	
12	Develop a project-based ten (10) year Capital Works Program for renewals, upgrades, and new works.	Property Services Projects and Assets Finance	Medium	Internal	✓	✓		
13	Develop a criticality framework for Council's assets and apply to the buildings and other structures asset portfolio to inform lifecycle management decisions.	Property Services Projects and Assets	Medium	Internal	✓	✓		

Table 24 - Improvement Plan

This first-generation asset management plan has been developed based on existing processes, practices, data, and standards.

We are committed to striving towards best appropriate asset management practices and it is recognised that this asset management plan will need to be updated periodically to reflect changes to management of our assets.

It is intended that asset management plans are 'living' document that should always reflect as closely as practicable actual practices used in managing our assets. Only in this way will we be best able to ascertain its long-term financial needs for the network. A number of improvement actions have been identified which will enhance our capability for managing those assets covered by this plan.

7.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services because of budget decisions.

The Asset Management Plan 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 Long-Term Financial Plan.

The Asset Management Plan will have a life of four (4) years and will be completely reviewed and updated to inform the development of the Community Strategic Plan, the Operational and Development Plan, and the Long-Term Financial Plan.

7.4 Performance Measures

Performance measures will be developed to ensure that work practices and the Asset Management Plan are reflective of each other.

The performance of the Asset Management Plan shall be monitored against the following criteria in accordance with the process detailed below.

- Maintenance and renewal programs - to confirm that allocated budget projects were delivered on time, within budget and to the specified level of service (see following item on delivery performance).
- Inspection programs - to confirm that they were undertaken as specified in the asset management plans and any other service level agreements which may be in operation including Council's scheduled condition surveys – to confirm that they were undertaken as required.
- Maintenance of asset information systems - to ensure that stored data is current and accurate.
- External factors - including legislative requirements, ongoing development of Council policies, plans, and other major system implementations, that may affect the contents of the asset management plan.

2022 Parks and Open Spaces Asset Management Plan

Document Control

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Email : admin@ctman.com.au Web : www.ctman.com.au	Synopsis: Lifecycle Asset Management Plan for Council's parks and open spaces assets.

CONSULTANTS DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
1.0	20/05/2022	Narrabri Shire Council	Draft
1.1	09/06/2022	Narrabri Shire Council	Final for approval

SCHEDULE OF ADOPTION

Version No.	Date	Comment	Resolution
1.2	16/05/2022	Endorsed for Public Exhibition	130/2022
1.3	28/06/2022	Adopted	

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1. EXECUTIVE SUMMARY

1.1 Purpose of the Plan

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This Asset Management Plan details information about Council's parks and open spaces assets. The plan outlines the management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning);
- Managing the future demand for assets to achieve and maintain financial sustainability;
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost);
- identifying and managing risks associated with the relevant asset (including criticality and condition);
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period; and
- Continual improvement in the management of the assets and performance monitoring.

1.2 Asset Description

Council's parks and open spaces assets contribute to the community by providing and maintaining:

- Places for nature to thrive in natural places.
- Places for people of all ages to visit with family and friends in the outdoors.
- Places to play sport.
- Places for outdoor recreation.
- Places for outdoor exercise.
- Places for the burial of loved ones.
- Places to swim safely.
- Cultural places such as monuments and memorials.
- Street trees and streetscapes.

The parks and open spaces network is comprised of the following asset types:

- Parks and reserves
- Sports and play surfaces
- Park furniture
- Paths and trails
- Street trees and streetscapes
- Public art, memorials, and monuments
- Swimming pools
- Cemeteries

Council maintains **221 Ha** of open space, **38.06 Ha** of recreational areas and **14.5 Ha** of sports fields. The assets are located throughout the Shire with a concentration of facilities in the 7 urban centres of:

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- Baan Baa
- Bellata
- Boggabri
- Gwabegar
- Narrabri
- Pilliga
- Wee Waa

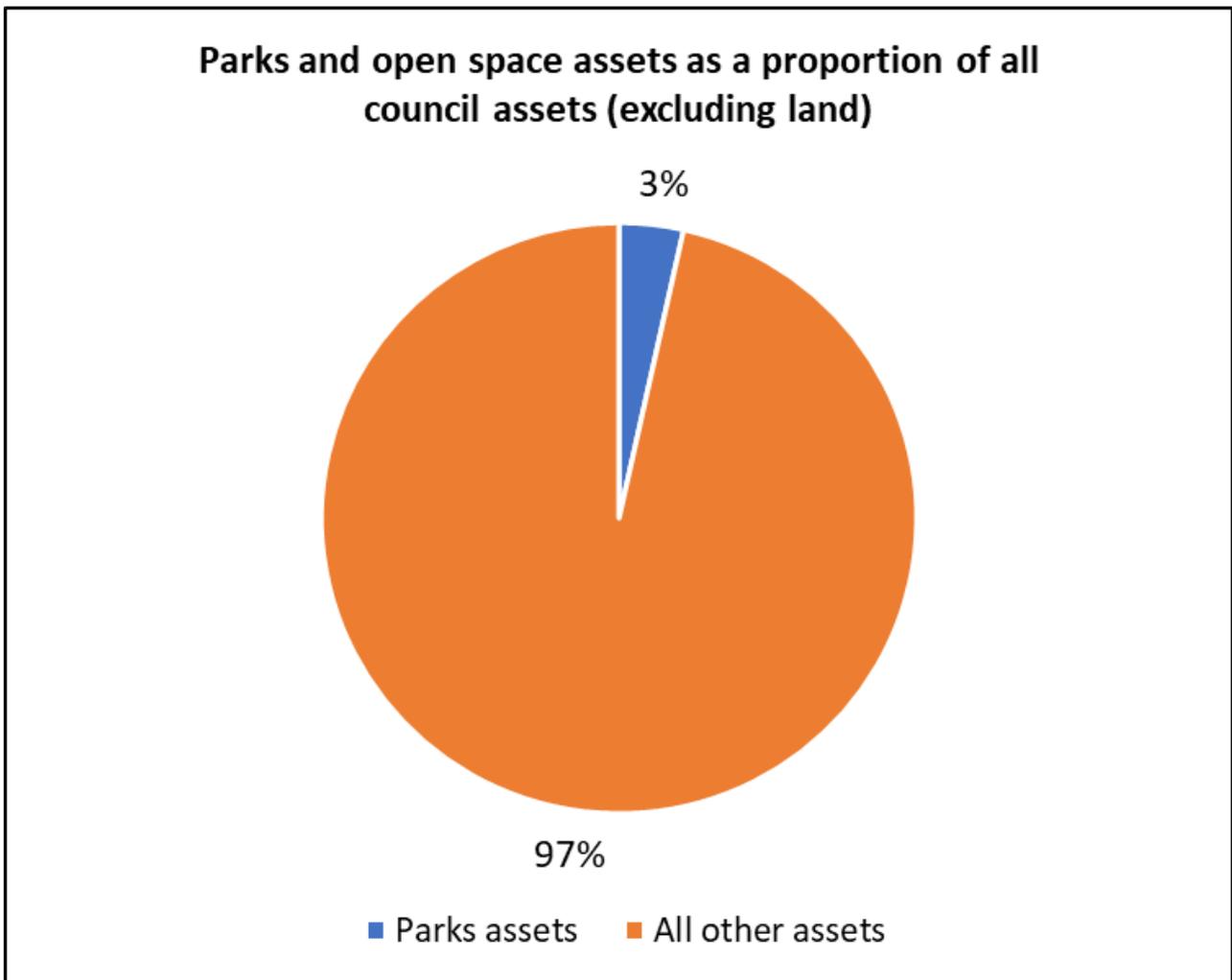These infrastructure assets have a significant replacement value of *$25.2M.*

Figure 1: Parks and Open Spaces as a proportion of all council assets.

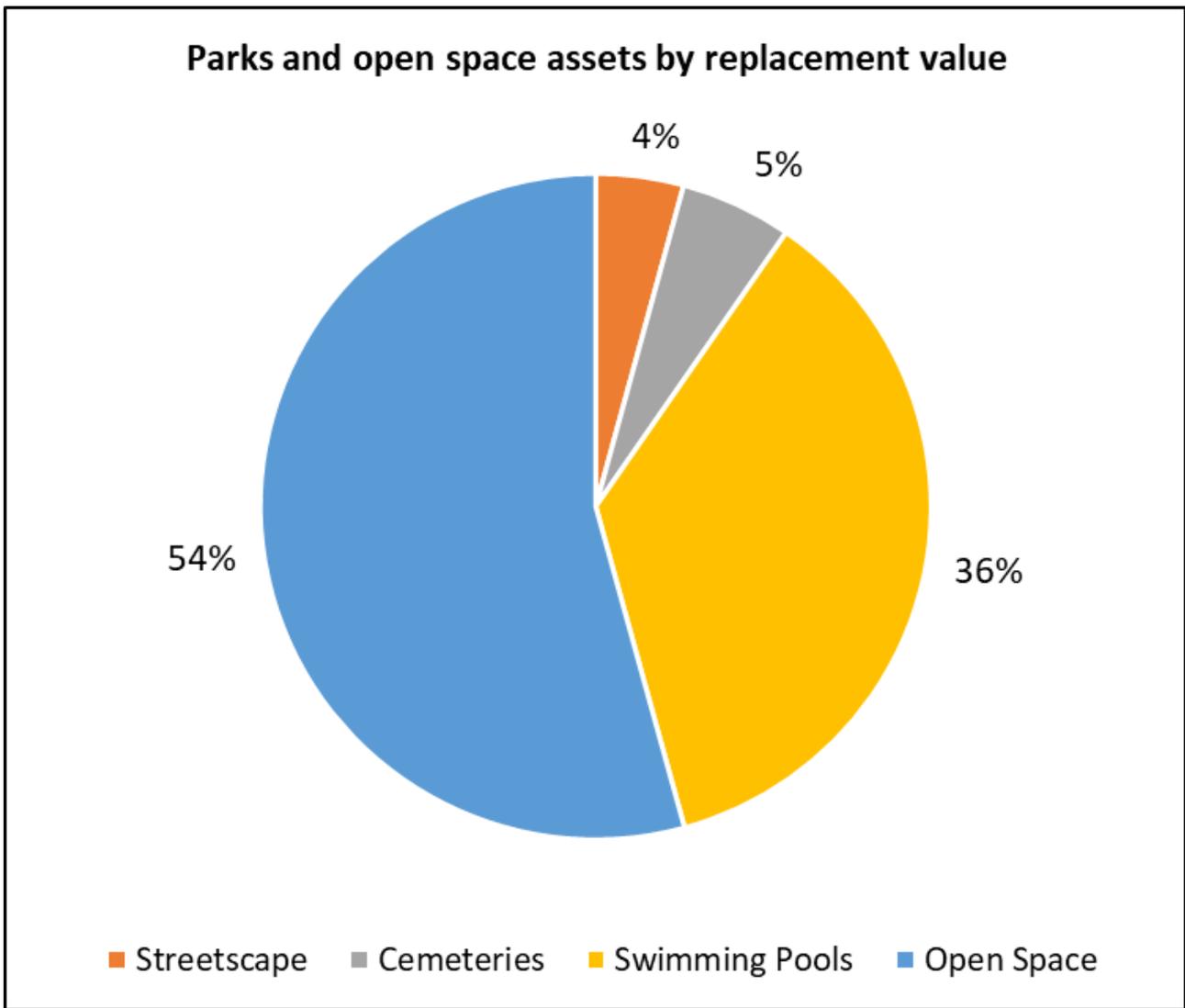## Parks and open space assets by replacement value

Figure 2: Parks and Open Space assets by replacement value.

A physical condition assessment has not yet been carried out for the parks and open spaces assets, however, internal inspection and condition assessment programs are being developed. Asset consumption scores are being used to represent condition data.

1.3   Levels of Service

Levels of service for parks and open spaces assets are guided by the 2017 Sport, Recreation and Open Space Plan. The 2021/2022 Parks and Open Spaces Service Plan has not yet been adopted by Council.

Management of assets, including intervention points and chosen treatment methods, is based upon standard historical practices and decisions made by management on an ad hoc basis. This is a key improvement area required to direct our future management approach and investment in parks and open spaces assets.

At present, management of assets, including intervention points and chosen treatment methods, is based upon:

- Available budget and resource allocations.
- Feedback from the community.

- Active monitoring of the performance of the various assets that comprise the parks and open spaces portfolio.

Council's present funding levels are insufficient to continue to provide existing services at the current levels in the medium to long term.

The main services consequences are:

- Deteriorating assets which will impact the service quality.
- An increasing asset renewal gap impacting long term financial sustainability
- Generational cost shifting where future residents will inherit the cost of renewing current day assets.
- Inability to meet demand for new services through provision of new, expanded or upgraded facilities.

This Asset Management Plan, and future revisions, will inform the long-term financial planning to fund the future renewal and upgrades necessary to meet the capacity demand and levels of service.

1.4   Future Demand

The main demands for new services are created by:

- Demand for parks and open spaces and park infrastructure to reflect the increasing numbers of older people.
- Donated facilities by community and service clubs that Council accepts ongoing maintenance for without increasing Council resources.
- Declining population will diminish use and therefore viability of maintaining some facilities.
- Rapid changes in technology and user expectations impacting on use and design of parks, sport, and recreation facilities.
- Demands from the community for increased service delivery or infrastructure that increases pressure on limited Council resources.
- Lawn cemeteries are increasingly expensive to maintain.
- The use of custom designed plinths resulting in limited suppliers of plinths contributing to escalated prices.
- Natural disasters damaging assets and impacting cemetery layout e.g., fire or flood.
- Pandemic outbreak reduction in staff due to high levels of isolation and sick/family leave.

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

Demand management practices include:

- Formal planning and community consultation to identify where demand is greatest and of highest priority.
- Regular inspection of assets to ensure they remain in good condition and are fit for purpose while they are service.
- Advocacy efforts to attract external funding through Government Grants to increase the available sources of funding for upgrade and new capital works.

1.5   Lifecycle Management Plan

Lifecycle planning describes the approach to maintaining an asset from construction to disposal. It involves the prediction of future performance of an asset, or a group of assets, based on investment scenarios and maintenance strategies.

Council's current approach to managing and operating our parks and parks and open spaces assets is transitioning to a more proactive approach as we are continually improving our knowledge on performance, changing requirements, and service demands.

Council is always striving to improve our approach to lifecycle management to make sure that we deliver on our service commitments in the most cost effective and efficient manner.

1.6   Financial Summary

The projected outlays necessary to provide the services covered by this plan includes operations, maintenance, renewal, upgrade, and new assets over the 10-year planning period is $**95,686,300** or **$9,568,900** on average per year.

1.6.1   What funding sources are available

Estimated available funding for the next ten (10) financial years is **$33 million** or $**3.3 million** on average per year as per the Long-Term Financial Plan. This is **100%** of the cost to sustain the current level of service at the lowest lifecycle cost.

If this shortfall is left unaddressed, the quality of our parks and open spaces infrastructure will decline leading to a deterioration in community service levels and will impact Council's long-term financial sustainability.

1.6.2   What we will do with constrained funding

We plan to provide the following related services:

- Operation, maintenance, renewal, and upgrade of our facilities to meet service levels set by Council in annual budgets
- Plan asset renewal to ensure that the highest priority assets are targeted for renewal each financial year. Prioritisation must be based on risk

1.6.3   What we cannot do with constrained funding

Currently, Council does **not** allocate enough funding to sustain all services at the desired standard or to provide all new services being sought.

Works and services that cannot be provided under present funding levels are:

- Projects that do not align to Council's strategic direction.
- Park asset renewals that are not multi-faceted in their design to cater for a range of uses.
- Park assets that are the remit of other levels of government to provide.
- Asset upgrades or renewals that duplicate existing facilities at the detriment of areas without facilities.

Council will continue to work with its partners and stakeholders within the community and in Government to press for more funding to ensure Narrabri Shire Council can continue to grow and service existing and newly established residents.

1.7 Risk Management

There are risks associated with providing the service and not being able to complete all identified activities and projects.

The main risks are:

- Injury to users due to deterioration of materials, broken or missing components and foreign materials left such as syringes and rubbish.
- Sports surfaces unsuitable for playing.
- Misuse of herbicides by staff.
- Outbreak of weeds.
- Damage to vehicles and persons from fallen branches or vehicle strikes on streets.

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

- Regular inspections in accordance with the level of risk.
- Timely follow-up of customer complaints.
- Increasing proactive maintenance schedules.
- Staff training and certification.

1.8 Asset Management Practices

Council's Asset Management Framework provides a structured approach for the development, coordination, and control of our activities on assets over their life cycle, and for aligning these activities with our vision and strategic objectives.

Council's asset management planning is supported by three key documents:

- Asset Management Policy.
- Asset Management Strategy; and
- Asset Management Plans.

Council's systems to manage assets include:

- Finance and accounting – TechOne
- Asset management system – TechOne

Assets requiring renewal/replacement are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project.

1.9 Monitoring and Improvement Program

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

- Conduct an audit and condition assessment of all parks and open spaces assets and update the asset register accordingly.
- Undertake a review of the useful lives of all park and open space assets.
- Undertake a review of the park classifications with a view to including streetscapes and other non-park landscapes which are serviced and maintained by the Parks Department.

- Undertake a review of the Sporting Facilities to determine the reasons for the satisfaction survey results being under the benchmarked other council results.
- Ensure all items from the Corporate Plan are listed in future budgets.
- Develop program to increase shade to playgrounds, recreational and appropriate sporting facilities.
- Develop a program for upgrading spectator areas, shade covers and seating for sports facilities.
- Implementing functionality of our corporate Asset Management Information System support maintenance planning for parks and open space assets and to enhance data capture and activity tracking.
- Develop a project-based ten (10) year capital works program for renewals, upgrades, and new works.

2. INTRODUCTION

2.1 Background

Narrabri Shire Council owns and manages a portfolio of parks and open spaces infrastructure to support its operations and delivery of services to the community. These infrastructure assets range in age, quality, and function. Our parks and open spaces assets include the land that underpins the parks and open spaces and the built infrastructure such as pathways, BBQs, shelters, goal posts etc. The management of our parks and open spaces assets requires the coordination of our technical and operational resources.

2.2 Purpose

This Asset Management Plan outlines the required management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost).
- Identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the Asset Management Plan over a 10-year planning period.
- Continual improvement in the management of the assets and performance monitoring.

This Asset Management Plan is to be read with our Asset Management Policy and Asset Management Strategy along with the Community Strategic Plan, Delivery Program, and Operational Plan.

Figure 3 shows the different documents that influence and inform this Asset Management Plan.

Community Strategic Plan

Delivery Program and Operational Plan

Asset Management Policy

Asset Management Strategy

Parks and Open Spces Asset Management Plan

Figure 3 - Asset Management Document Relationship.

The infrastructure assets covered by this asset management plan are shown in Table 1.

Asset Category	Quantity	Current Replacement Value ($)	Depreciated Replacement Cost ($)
Streetscape	26	$1,064,100	$836,400
Cemeteries	18	$1,353,300	$1,106,900
Swimming Pools	60	$9,088,900	$6,752,700
Open Space	238	$13,652,200	$9,851,500
TOTAL	342	$25,158,500	$18,547,500

Table 1 - Assets Covered by this Plan

Our networks of parks and open spaces assets are provided to the community to facilitate a range of recreational activities. The service objectives are:

- To be recognised as providing attractive, safe, and comfortable parks and open spaces suitable for a diverse range of recreation pursuits for residents and visitors of the shire.
- To provide a diverse range of park and open space facilities allowing residents and visitors to spend their leisure time participating in recreation activities of their choice.
- To be an efficient and effective essential service providing appropriate interment options for deceased members of the Shire community.
- To provide a range of dignified and sustainable interment and memorial options for residents of the Shire.

2.3 Plan Framework

This Asset Management Plan has been prepared using good practice guidance from the ISO55000 - Asset Management standard, International Infrastructure Management Manual and the Office of Local Government's Integrated Planning and Reporting Manual for Local Government in NSW and has been developed based on existing processes, practices, data, and standards.

Council is committed to striving towards best appropriate asset management practices and it is recognised that this asset management plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's asset management plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will Council be best able to ascertain its long-term financial needs for delivering sustainable assets and services.

2.4 Goals and Objectives of Asset Ownership

Our goal in managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers. By achieving the most cost-effective approach, we will contribute the affordability and liability of our community, including a vibrant, growing, and efficient local economy.

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 that meet the defined levels of service.
- Identifying, assessing, and appropriately controlling risks.
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

2.5 Key Stakeholders

Our assets are utilised by a broad cross-section of the community.

The stakeholders in the management of Council's parks and open spaces assets are many and often their needs are wide-ranging. The relevant key stakeholders are:

- The community in general (for recreation, sport, leisure, and business).
- Residents and businesses adjoining our parks and open spaces.
- Organised groups such as clubs and associations.
- Park users (including the very young, those with disabilities, and the elderly with somewhat limited mobility).
- Users with smaller and lightweight vehicles such as pedal cyclists, scooters, wheelchairs, prams, etc.
- Tourists and visitors to the area.
- State and Federal Government that periodically provide support funding to assist with management of the network.
- Council's Insurers.

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding.

This plan will demonstrate to the various stakeholders that Council is managing its parks and open spaces related assets in a responsible manner.

3. LEVELS OF SERVICE

This section defines the level of service or performance criteria that are required and the basis of the decision behind their adoption. The levels of service support our strategic goals and are based on customer expectation and statutory requirements.

In developing the levels of service outlined in this Asset Management Plan, we have given due regard to the following:

Community Requirements *(Customer Expectations)*	These are the expectations of the customers/community. These expectations (quality) must be balanced with the community's ability and desire to pay (balancing risk, cost, and performance).
Strategic Goals and Objectives *(Strategic Drivers)*	The lifecycle management of assets (service offered by assets, service delivery mechanism and specific levels of service that Council wishes to achieve) will be consistent with goals and objectives stated in the Community Strategic Plan, Delivery Program, and Operational Plan.
Legislative Requirements (Mandatory Requirements)	These are the objectives and standards that must be met, set by legislation, regulations, Codes or Practice, and Council by-laws that impact the way assets are managed.
Industry Standards and Guidelines *(Operating Requirements)*	Design and construction standards and guidelines that provide the principles and minimum design standards for an asset.

Table 2 - Key Levels of Service Drivers.

3.1 Customer Research and Expectations

3.1.1 Community Consultation

Council is committed to transparent and informed decision making in relation to the management of assets and services through engagement with the community. Council undertake inclusive community consultation to define service levels and performance measures through the development of its Community Strategic Plan, the Delivery Program and Operational Plan, and Annual Budget. These discussions provide input to Council's strategic directions which are supported by the various services, projects, and programmes which its delivers.

Customer research is undertaken for the parks and open spaces assets through a telephone survey conducted every year. The last survey was undertaken in August 2021.

Wherever practicable, community input is sought on appropriate aspects of planning the parks and open spaces by way of consultation. However, it is acknowledged that Council will need to do more work with our community in developing levels of service and it will target discussions when making decisions which influence the way that Council deliver services and manage assets. A draft Parks and Open Spaces Service Plan has been completed and is currently in review.

Once service levels and budget funding issues have been properly reconciled, it is appropriate that the community is consulted to ensure that these service levels are meeting community expectations.

3.1.2 Community Satisfaction

Council regularly seeks feedback from the community on performance via a formal Customer Satisfaction Survey. This survey measures community views towards, and satisfaction with the services and facilities. The results from the survey conducted in 2021 are summarised in Table 3. Parks and Open Space and Swimming Pools scored in the top 5 categories for satisfaction rate overall.

Customer Satisfaction Index	Result	Result	Result	Narrabri Satisfaction	Regional Benchmark
	2017	2019	2021	2021	2021
Public access to natural assets	3.56	3.62	3.54	N/A	N/A
Planning of open spaces and natural environmental areas	N/A	N/A	3.33	N/A	N/A
Public area access and appearance	N/A	N/A	3.54	88%	82%
Parks and open spaces	3.43	3.72	3.74	90%	86%
Cemeteries	3.78	3.73	3.91	88%	90%
Swimming Pools	3.78	3.73	3.91	89%	85%
Sporting Facilities	N/A	N/A	3.70	84%	89%

Table 3 - Customer Satisfaction Results.

(Green cells denote improvement over previous years result and increased satisfaction compared to benchmarked councils. Yellow cells denote lessor performance in results and decreased satisfaction compared to benchmarked councils.)

The survey reported a decrease in the participation rates in sport and/or recreational activities locally since the 2019 survey. It is thought that this is reflective of the restrictions related to Covid-19 during the period since the 2019 survey.

The survey indicates high levels of satisfaction with the park's assets and a general improvement in satisfaction over time. This provides Council with some comfort that budgets for Operations and Maintenance and Capital Budgets for renewal have been in the required range to meet the Levels of Service with perhaps the exception of Sporting Facilities. Although the margin is small the satisfaction with the NSC Sporting Facilities is lower than that of the Councils included in the benchmarked facilities. This may indicate a need to increase spending on the Sporting Facilities.

Future revisions of the Asset Management Plan will continue to incorporate information from the community survey as an indicator of the need to change the agreed Levels of Service, and as a consequence, to increase or decrease expenditure to provide the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

3.2   Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of our vision, mission, strategic directions and strategies.

Council's vision is:

> *The Narrabri Shire will continue to be a strong and vibrant regional economic growth centre providing a quality living environment for the entire community.*

Relevant Council strategic directions and objectives can be found in our Community Strategic Plan. Details on the specific actions we will implement to address these objectives are outlined in our Operational Plan.

We will continuously exercise our duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

3.3   Legislative Requirements

There are many legislative requirements relating to the management of parks and open spaces assets. These include:

Legislation	Requirement
Local Government Act 1993	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.
Workplace Health and Safety Act 2011	Protects workers and other persons against harm to their health and safety and welfare through elimination or minimisation of risks arising from work.
Environmental Planning and Assessment Act 1997	Encourages the proper management, development, and conservation of natural and artificial resources, for the purpose of promoting the social and economic welfare of the community and a better environment.
Public Works and Procurement Act 1912	An Act to consolidate the Acts relating to Public Works; and to make provision in relation to the procurement of goods and services for New South Wales government agencies.
Crown Lands Act 1989	Sets out the role of Council for managing state reserves.
Biosecurity Act 2015	Sets out the role of council staff in managing weeds on both public and private land. The Act requires monthly reports of weed management data.

Legislation	Requirement
Cemeteries and Crematoria Act 2013 and Cemeteries and Crematoria Regulation 2014.	Sets out the requirements of Council in managing and maintaining cemeteries.
Civil Liability Act 2002	An Act to make provision in relation to the recovery of damages for death or personal injury caused by the fault of a person; to amend the Legal Profession Act 1987 in relation to costs in civil claims; and for other purposes.
Disability Inclusion Act 2014	An Act relating to the accessibility of mainstream services and facilities, the promotion of community inclusion and the provision of funding, support, and services for people with disability; and for other purposes
Native Vegetation Act 2003	An Act relating to the sustainable management and conservation of native vegetation.

Table 4 - Legislative Requirements

There are several legislative requirements delegated to parks and open space staff. These are shown in Table 5.

Formal Responsibility	Responsible Officer	Legislation
Land Manager	Manager Parks and Open Spaces	*Crown Lands Act 1989* (NSW)
Land Manager	Manager Parks and Open Spaces	*Biosecurity Act 2015* (NSW).
Land Manager	Manager Parks and Open Spaces	*Local Government Act* (NSW) s 48
Disposal of the Deceased	Manager Parks and Open Spaces	*Public Health Act 2010* (NSW) *Public Health Regulation 2012* (NSW) regs 49-93
Cemetery Manager	Manager Parks and Open Spaces	*Cemeteries and Crematoria Act 2013 (NSW)* *Cemeteries and Crematoria Regulation 2014* (NSW)

Table 5: Staff legislated responsibilities

3.4 Alignment to Services

The draft Service Objectives for Parks and Open Spaces are:

- To be recognised as providing attractive, safe, and comfortable parks and open spaces suitable for a diverse range of recreation pursuits for residents and visitors of the shire.
- To provide a diverse range of park and open space facilities allowing residents and visitors to spend their leisure time participating in recreation activities of their choice.
- To be an efficient and effective essential service providing appropriate interment options for deceased members of the Shire community.
- To provide a range of dignified and sustainable interment and memorial options for residents of the Shire.

The assets covered by this Asset Management Plan contribute and support the delivery of the following services:

Asset Type	Council Service Category	Service Description
Parks and Open Spaces Assets	Community use and event support	• Booking of site • Preparation of site (mowing, waste bins power access) • Inspection of site for damage etc after event • Removal of waste bins • Opening closing of access gates for event if required
	Amenity and open space maintenance	• Vegetation control • Removal of waste • Tree pruning removal • Repairs and maintenance to structures and assets
	Sporting facilities	• Sports field vegetation control • Line marking post installation • Irrigation • Lighting • Chemical and fertiliser control • Inspection of surface • General maintenance to surface and surrounds • Maintenance and cleaning of sporting infrastructure (grandstands, seating, public waste bins, fences furniture, oval access points) • Road's carparks and pathway maintenance • Capital works

Asset Type	Council Service Category	Service Description
	Recreational parks	• Playgrounds passive recreation areas • Vegetation control • Gardening tree works • Irrigation • Cleaning of amenities and other structures (BBQ, shelters seating) • Playground inspections • Playground Maintenance • Litter waste • Road's carpark and pathway maintenance • Capital works
	Public waste and litter control	• Litter pick • Dead animals pick up • CBD street bins • Public spaces waste bins • Reactive maintenance for call outs on waste dumped in town limits
	Street tree program	• Pruning and removal of street trees either by Council or contractor
	Monuments and memorials	• Vegetation maintenance • Infrastructure maintenance • Cleaning • Inspection • Capital works
	Public amenities	• Cleaning of public toilets • Infrastructure maintenance on the assets • Reactive maintenance (vandalism damage) • Capital works
	Central Business District (CBD) maintenance	• Gardening • Street trees • Cleaning and maintenance of pavement areas • Banners and flags • Reactive maintenance • Public waste • Capital works
	Swimming pool management and maintenance	• Operations of Narrabri aquatic centre Boggabri memorial pool, Wee Waa Memorial pool • Staffing and training • Maintenance • Legislative requirements and water quality programs • Capital works

Asset Type	Council Service Category	Service Description
	Roadside mowing	• Slashing mowing weed control of identified roads and adjacent open spaces
	Cemeteries	• Interment booking • Plinths and monuments • Maintenance fences furniture's • Excavation and back fills of grave sites • Vegetation control • Road's maintenance • Legislative reporting and other requirements • Capital works

Table 6 - Services Delivered by Assets

These services align with Council's service planning, delivery, and reporting framework.

3.5 Levels of Service

Service levels can be defined in two interconnected ways, customer levels of service and technical levels of service. These are supplemented by organisational measures which include the Community Plan, Council Plan, and the Annual Budget. Service performance results are reported through Council's Annual Reports.

The development of this Asset Management Plan represents the first occasion that levels of service for parks and open spaces assets have been considered in an asset management context. Consequently, Council has prepared high level performance measures aligned with service delivery and in some instances, service levels may not be comprehensively documented.

At present, indications of current and target levels of service are obtained from various sources including:

- Community satisfaction surveys.
- Residents' feedback to Council and staff.
- Operations staff feedback to management.
- Feedback from other stakeholders.
- Service requests and related correspondence entered in Council's Customer Request System.
- Physical measurements of quality standards.
- Legislative standards (minimum requirements).

In future, it is also expected that Council will continue to undertake deliberative community engagement to validate these levels of service.

3.5.1 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the Asset Management Plan are:

Quality	How good is the service … what is the condition or quality of the service?
Function	Is it suitable for its intended purpose? Is it the right service?
Capacity/Use	Is the service over or under used? do we need more or less of these assets?

The current and expected customer service levels are detailed in 8.

Organisational measures are measures of fact related to the service delivery outcome (e.g., number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very Good).

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Quality	Parks and Open Spaces of an appropriate condition and standard	Annual Community Satisfaction Survey	90%	90%
Function	Parks and Open Spaces infrastructure meets public demand	Annual Community Satisfaction Survey	90%	90%
Capacity/ Utilisation	Sufficient parks and open spaces	Annual Community Satisfaction Survey	90%	90%

Table 7 - Customer Level of Service

3.6 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Operations **(Reliability, Safety, and Responsiveness)**	The regular activities to provide services (e.g., opening hours, cleansing, mowing grass, utility consumption, inspections, etc.

Maintenance **(Reliability, Safety, and Responsiveness)**	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g., repair to playground components, repair to path and bike track networks, etc),
Renewal **(Condition and Cost)**	The activities that return the service capability of an asset up to that which it had originally (e.g., replacement of lighting towers, street litter bins, playground components or renewal of hardcourt surfaces),
Asset Improvements **(Availability, Function, Sustainability and Capacity)**	The activities to provide a higher level of service (e.g., bespoke playgrounds, adding drainage to football fields, new or improved sport field lighting, increasing the numbers of trees in parks,) or a new service that did not exist previously (e.g., a new reserve or playground).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Table 8 shows the technical levels of service expected to be provided under this Asset Management Plan. The 'Desired' position in the table documents the position being recommended in this Asset Management Plan.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Reliability	To maintain function and serviceability of parks and open spaces assets	Maintenance inspections – Percentage of routine inspections completed per annual schedule.	To be determined following further analysis	To be determined following further analysis
Responsiveness	Timely response to maintenance and repairs service request	Percentage of requests responded to within agreed timeframes.	To be determined following further analysis	To be determined following further analysis
Condition	Preserving the condition of parks and open spaces assets	Percentage of condition inspections completed every 4 years.	To be determined following further analysis	To be determined following further analysis

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Safety	Parks and open spaces will be safe to use.	Number of public liability claims Number of reported safety related incidents per annum.	To be determined following further analysis To be determined following further analysis	To be determined following further analysis To be determined following further analysis

Table 8 - Technical Levels of Service

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time.

Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

3.7   Actual Levels of Service

Council recognises the importance that levels of service play in optimising the lifecycle management of infrastructure assets. For the assets covered by this plan, Council will work towards achieving the suite of levels of service as specified in the IPWEA Parks Management: Levels of Service Practice Note. The development and monitoring of actual service levels will be one of the foundations of future improvement through the asset management planning process.

3.7.1 Parks Categories

Local governments use park categories to make decisions about Levels of Service in three ways:

- Provision – these define what land needs to be provided, and where that land is to be located.
- Development – these define the range of assets provided, their quality and quantity.
- Operations – these define the standard to which parks and facilities are maintained and operated.

The Narrabri Shire Council has adopted the parks categories shown in Table 9. Where parks have more than one function the overall/final classification of the land parcel is determined by its primary function as depicted by the largest land use. However, the Levels of Service for development and operations will be applied as appropriate to each of the functional areas within the overall land parcel.

NSC will consider the need for additional categories covering streetscapes and other non-park landscapes which are serviced and maintained by the parks department.

Park Classification	Park Type	Example
Recreation Park	Local Recreation Park	Anzac Park, Gwabegar
	Town Recreation Park	Vickery Park, Boggabri

Park Classification	Park Type	Example
Sports Park	Local Sports Park	Dangar park, Wee Waa
	Town Sports Park	Collins Park, Narrabri
	Specialised Sports Park	Memorial Pool, Boggabri
Other Open Space	Cemetery	Narrabri Lawn Cemetery
	Undeveloped	Crescent Park,
	Private	Galloping Gully Polocrosse Grounds
	Camping	Caravan park, Boggabri
	Utility	James Hibbens Avenue, Wee Waa.

Table 9 - Parks Classifications.

3.7.2 Park Provision Standards

Narrabri Shire Council has not developed a Levels of Service for the provision of parks and open spaces due to the lack of sub-divisions occurring in the Shire's towns and villages. Where developments do occur, cash contributions are made through Section 7.11 and 7.12 of the *Environment Planning and Assessment Act 1979.*

3.7.3 Park Development Standards

Park Development Standards apply to park types and specify the maximum levels of embellishment that should occur in a park of a specified type. Embellishment levels may include the number, type, quality, size, character, and materials of assets in a class of park. Council is working towards developing specified guidelines to guide the development of park types.

3.7.4 Parks Operations Standards

Levels of Service at the Operational Level provide the specification of service and maintenance standards that provide variations to parks or streetscapes of the same type (classification) such as a Local Recreation Park. The use of Parks Operations Standards provides approved specifications that acknowledge the location, usage and risk assessment of the parks and the built assets contained within even though they may be of the same Park Type and Classification. Council is currently working towards developing its own Parks Operations Standards.

4. FUTURE DEMANDS

The objective of asset management is to create, operate, maintain, rehabilitate, and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner. The Asset Management Plan must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs.

4.1 Demand Forecasts and Impact on Assets

The present position and projections for demand drivers, and their potential impacts on future service delivery and use of assets is identified and documented in the following sections.

Demand Factor	Projection	Impact on Assets
Community expectation	It is anticipated that community expectations and desire for higher asset and service standards will continue to escalate,	Our existing infrastructure may not be suitable for purpose over the longer term.
Population change	Population forecasts indicate that our population is estimated to increase by 701 people between 2022 and 2041, from 14,108 to 14,809 (with gas project).The population will continue to have a higher proportion of older people.	Parks and open spaces design and infrastructure to reflect the increasing numbers of older people.
Tourism	It is anticipated that the numbers of tourists will continue to increase.	Parks and open spaces infrastructure built in locations to service tourist needs.
Council financial sustainability	Reduced size of grants from other tiers of government not matching required asset expenditures.	Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. Increased need for maintenance and repairs.
Climate change	Highly variable climate and increased frequency and intensity of extreme rainfall and storm events.	Accelerated degradation of and reduced road and footpath life expectancy. Increased likelihood of natural disasters. Increased lifecycle costs.

Demand Factor	Projection	Impact on Assets
Increasing costs	Limited revenue growth to fund increasing costs for all operations and services including asset provision and maintenance.	Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. Increased need for maintenance and repairs.
Ageing infrastructure	Council has a legacy whereby parks and open spaces assets, based on their age profile, will require renewal or rehabilitation in the near term in order to maintain basic service levels.	Without adequate funding the declining condition of our parks and open spaces assets will result in reduced levels of service and increased risk of failure.

Table 10 - Demand Drivers, Projections, and Impact on Services

4.2   Population change

According to the projections calculated by the Department of Planning and Environment, the population of the Narrabri Shire Council local government area will decrease over the next 20 years. However, several projects identified by Council may increase the population through construction workers and their families and a lesser number of ongoing jobs following construction. The projects include The Santos Narrabri Gas Project, Perdaman-Narrabri Ammonium Nitrate Plant. The Whitehaven Coal Vickery Mine Project, the APA Group Western Slopes Pipeline and the Inland Rail Project.
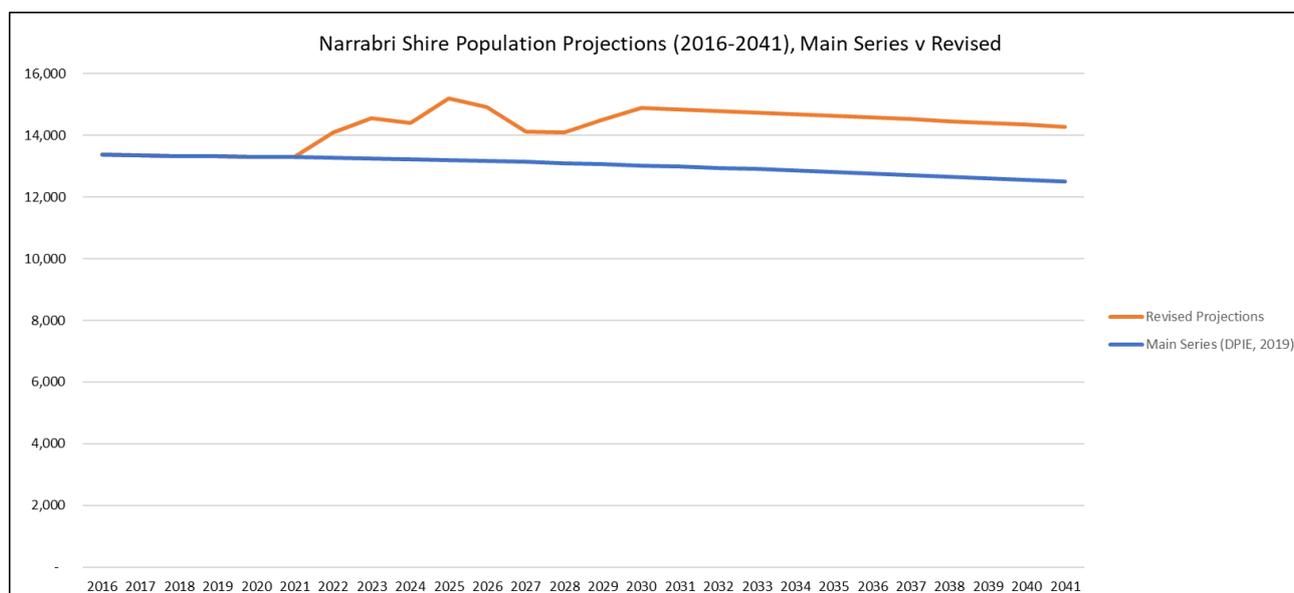
Figure 4: Population Projections, Dept of Planning & Environment and NSC assessment of potential major projects.

4.3   Key issues from Stakeholder Consultation

4.3.1   Popular places and activities

Overall, the community reported mixed perceptions regarding the quality of the open space and recreation opportunities available across the Shire. Areas such as local footpaths, swimming pool, Narrabri Lake and local roads were popular places to recreate. (Additionally, it should be noted that *home* was the most common venue for recreating).

Walking, swimming (for recreation not club) and playing in the park are the most popular activities to participate in. Interestingly, with only 26% participation noted, cycling (for recreation) was not a well-supported activity. This finding contrasts with state and national level results that show cycling as one of the highest participation activities (behind only walking, fitness/gym, running and swimming).

It should also be noted that water-based activities were popular, with swimming (for recreation not club), fishing and canoe/kayaking filling three of the top seven responses.

4.3.2   Natural settings are highly valued

One of the opened-ended questions included in the survey asked respondents to identify their favourite open space/ park. It is important to recognise that the four most common responses all relate to areas with key natural features - Narrabri Lake, Namoi River, Yarrie Lake and Cameron Park (and its link to the River). Mount Kaputar was also the sixth highest response.

These findings are reinforced by:

● the natural setting being the second most valued aspect of open space (only bettered by they allow me to spend time with my family); and by
● improved facilities along the river, creek and/or lake being highlighted as the second highest priority for Council.

4.3.3   Lack of variety

Despite there being an abundance of open space around the Shire, the youth felt that there was a lack of variety of play opportunities, with many of the parks only catering for toddlers. The community survey and workshops attendees also highlighted the lack of activities for youth, while the need for *new/upgraded playgrounds* was also identified as the highest priority for Council.

4.3.4   Lack of shade

The lack of shade throughout the open space network was a common theme identified throughout the engagement processes. Indeed, shade was a barrier to open space use for more than 52% of survey respondents (and was by far the highest barrier identified).

4.3.5   Communication and resourcing

Communication between Council and the community and sporting groups was also raised. Residents appear to find it difficult to access information about events and community information sessions. Sporting clubs also found it difficult to know how to request assistance with grants, funding, and development.

4.3.6 Lack of supporting infrastructure

Despite an ageing community, increasing participation numbers in walking and access to existing natural scenery; the open space network is significantly lacking infrastructure that allows users to relax and enjoy the serenity. Additional walk/cycleways are required to link and loop these key assets. Further, bench seats and water bubblers along the walk/ cycleways would create a more comfortable environment for users.

The lack of ancillary facilities was also identified as an ongoing issue at sports parks. Many clubs noting that simple upgrades such as spectator areas, shade covers, and bench seats would improve their facility.

4.4 Demand Management Strategy

Demand management is not intended to reduce the scope or standard of services provided by an asset, but rather, it is concerned with aligning demand or expectation of service provided by an asset with the available resources to ensure that genuine needs are met, and community benefit is maximised.

Demand management components may include:

Driver	Service Impact from Demand	Demand Management Activities
Increasing infrastructure needs.	Pressure to expand/upgrade council's parks and open spaces infrastructure network.	Analyse the effect of larger freight vehicles on roads. Monitor expectations and communicate service levels against funding capacity to balance priorities for infrastructure with what is affordable to the community.
Increasing community expectations.	Pressure to expand/upgrade and improve levels of service.	Continue to seek grant funding for priority projects identified in the Community Strategic and Asset Management Plans. Continue to analyse the cost of providing services and the capacity to fund at current levels.

Table 11 - Demand Management Strategies

4.5 Asset Programs to Meet Demand

Any new assets will be constructed/acquired by Council to meet growth and increased demand in a sustainable manner.

Acquiring new, or upgrading existing assets, will commit the organisation to fund ongoing operations, maintenance, and renewal costs for the entire lifecycle period of required service provided from those assets.

4.6 Climate Change Adaptation Strategies

The impacts of climate change have the potential to have a significant impact on the assets that Council manages and the services that are provided.

In the context of the asset management planning process, climate change can be considered as both a future demand and a risk. How climate change will impact on assets can vary significantly depending on the location and the type of asset and services provided, as will how Council responds and manages these impacts.

As a minimum, the Council should consider both how to manage existing assets given the potential impacts of climate change and how to create resilience to climate change in any new works or acquisitions.

Opportunities that have been identified to date to manage the impacts of climate change on existing assets are shown in Table 12.

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Temperature	Higher maximum temperatures	Increased temperatures on exposed playground equipment, tables and seats and similar assets.	Provide adequate shading to all playground equipment, tables and seats and similar assets.
Storm intensity	Increased rainfall intensity during rainfall events	Flooding and overland flow through playground Softfall, sports surfaces, and infrastructure.	Construction and maintenance of drainage systems to reduce frequency and extent of damage. Reduce the amount of built infrastructure on flood plains or build to cope with inundation.

Table 12 - Managing the Impact of Climate Change on Assets

The way in which Council constructs new assets should recognise that there is opportunity to build in resilience to the impacts of climate change. Building resilience has several benefits including:

- Assets will be able to withstand the impacts of climate change.
- Services can be sustained.
- Assets that can endure the impacts of climate change may potentially lower the life-cycle cost and reduce their carbon footprint.
- Potentially increasing asset life and protecting financial investment returns.

Table 13 summarises some asset climate change resilience opportunities.

New Asset Description	Climate Change Impact These Assets?	Build Resilience in New Works
Parks and open spaces assets	Higher maximum temperatures	Provide adequate shading to all playground equipment, tables and seats and similar assets.
Parks and open spaces assets	Increased rainfall intensity	Construction and maintenance of drainage systems to reduce frequency and extent of damage. Reduce the amount of built infrastructure on flood plains or build to cope with inundation.

Table 13 - Building Asset Resilience to Climate Change.

5. LIFECYCLE MANAGEMEN PLAN

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

5.1 Background Data

The parks and open space infrastructure for which Council is responsible is extensive and includes 246.39 ha of open space, 4 swimming pools, 6 cemeteries and 3 caravan parks.

Council's parks and open spaces are infrastructure provided to the community to facilitate both spontaneous and organised recreation opportunities and to provide specialist services such as cemeteries.

5.1.1 Functional Hierarchy

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

Each portfolio has an asset hierarchy that reflects the function and asset types for each asset class. The hierarchy groups like assets and can be used to assign ownership, responsibilities, inspection requirements and other planning mechanisms that are aligned with service delivery.

Council's hierarchy or classification system for Council's parks and open space network is under development. The draft hierarchy is shown in Table 14.

Level 2	Level 3
Streetscape	Gardens and Landscaping
	Irrigation
	Memorials and Public Art
	Outdoor Furniture
	Sign
	Sports Surface
	Structures
Cemeteries	Burial Structure
	Fence
	Internal Road
	Outdoor furniture
	Water

Level 2	Level 3
Swimming Pools	Fence
	Gardens and Landscaping
	Lighting
	Outdoor Furniture
	Pool
	Pool Equipment
	Sewerage
	Sign
	Sports Surface
	Structures
	Water
Open Space	Boat Ramp
	Fence
	Gardens and Landscaping
	Internal Road
	Irrigation
	Jetty
	Lighting
	Memorials and Public Art
	Outdoor Furniture
	Outdoor Gym
	Pathways
	Playground
	Sewerage
	Sign
	Skate Park
	Sports Equipment
	Sports Surface
	Structures
	Water

Table 14 - Asset Functional Hierarchy: Parks and open spaces Assets.

5.1.2 Asset Condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for strategic planning of Council's budget.

Council measures the condition of its assets using a standardised 1 to 5 grading system.

A summary of the condition rating scale used for the assets covered by this Asset Management Plan is detailed in Table 15. Council's condition grading system follows good practice guidance as provided by various industry standards including the *International Infrastructure Management Manual.*

Condition assessment of Council's parks and open spaces assets has not yet been undertaken but is planned. The condition data will be recorded in the asset register and will be used for renewal modelling, capital works planning, and financial reporting.

Score	Condition Rating	OLG Condition Category	Generalised Description of Asset Condition
0	Brand New	Excellent/ Very Good	An asset recently rehabilitated back to new condition
1	Excellent		An asset in excellent overall condition however is not new and providing its intended level of service.
2	Good	Good	As asset in good overall condition with some possible early stages of slight deterioration evident which is minor in nature and causing no serviceability issues.
3	Fair	Satisfactory	An asset in fair overall condition with some deterioration evident, which may be slight or minor in nature and causing some serviceability issues.
4	Poor	Poor	An asset in poor overall condition moderate to high deterioration evident. Substantial maintenance required to keep the asset serviceable. Will need to be renewed, upgraded, or disposed in near future.
5	Very Poor	Very Poor	An asset in extremely poor condition or obsolete. The asset no longer provides an adequate level of service and/or immediate remedial action required to keep the asset in service in the future.

Table 15 - Condition Rating System.

The following figures provide an overview of the Consumption Scores of council's Parks and Open Spaces assets taken from the last valuation completed in 2021. The consumption score is an assessment by the valuers "of the level of remaining service potential of the Depreciable Amount of each component (short-life and long-life parts) using a Consumption Rating that considers both the holistic factors (functionality, capacity, utilisation, obsolescence, etc) and component specific factors (such as physical condition and maintenance history)." The consumption score does not necessarily equal a condition assessment and may be influenced by the useful life of the asset.
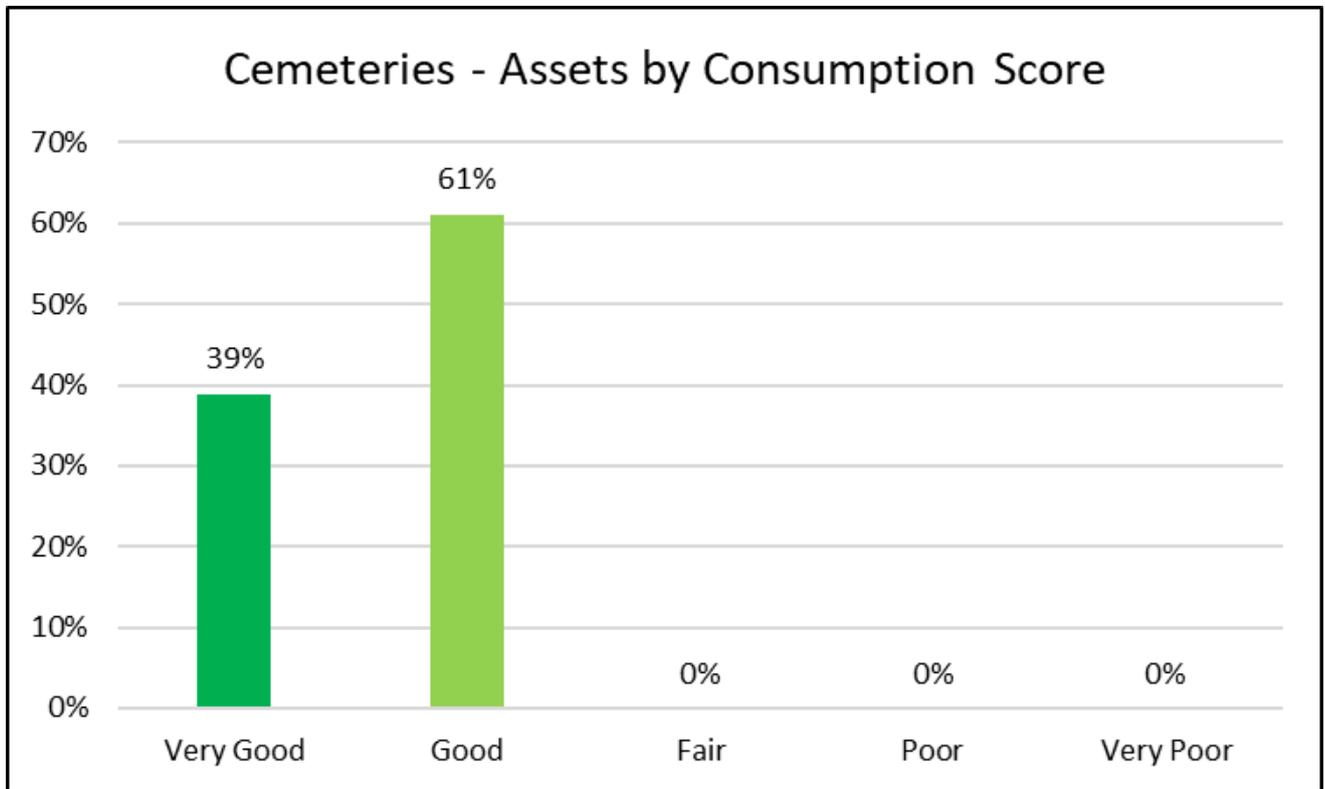
Figure 5: Cemeteries - Assets by Consumption Score. (Count = 18).
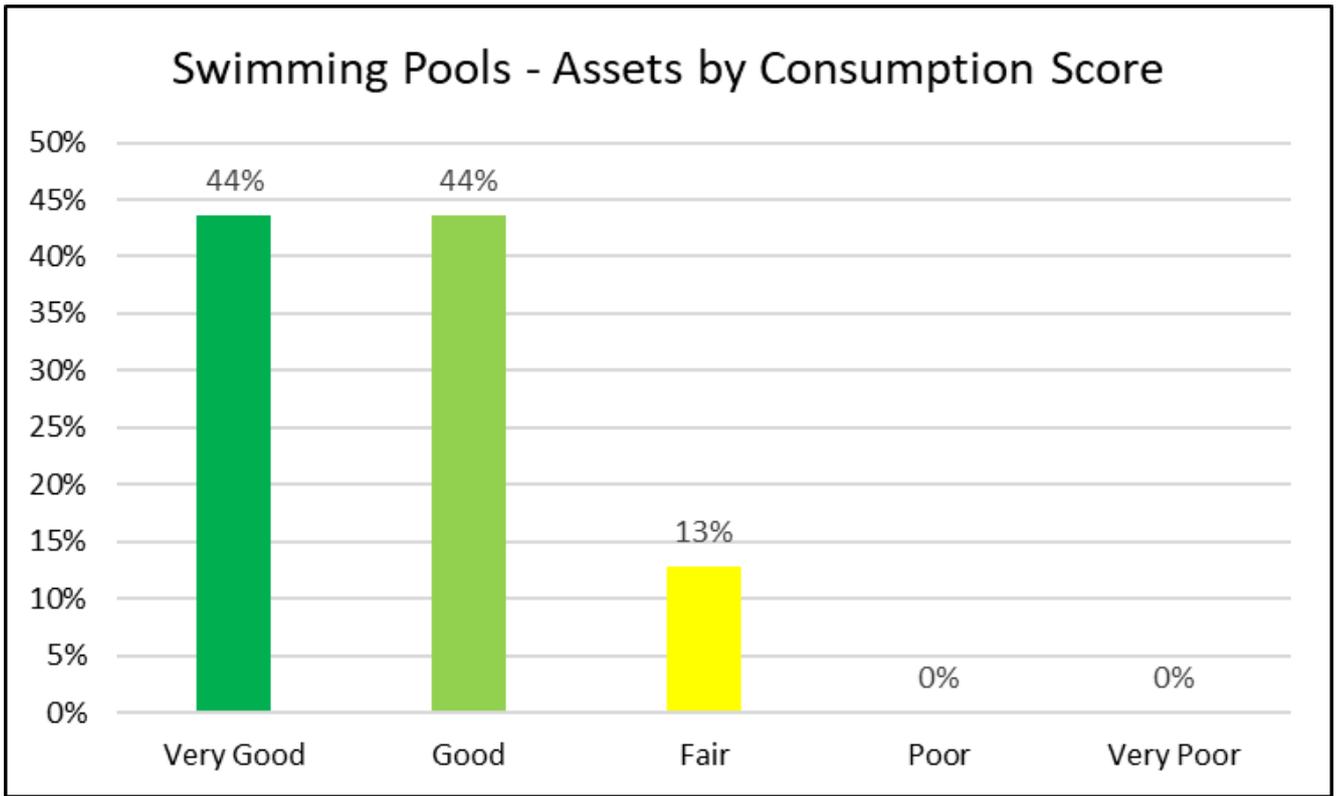
Figure 6: Swimming Pools - Assets by Consumption Score. (Count = 55).
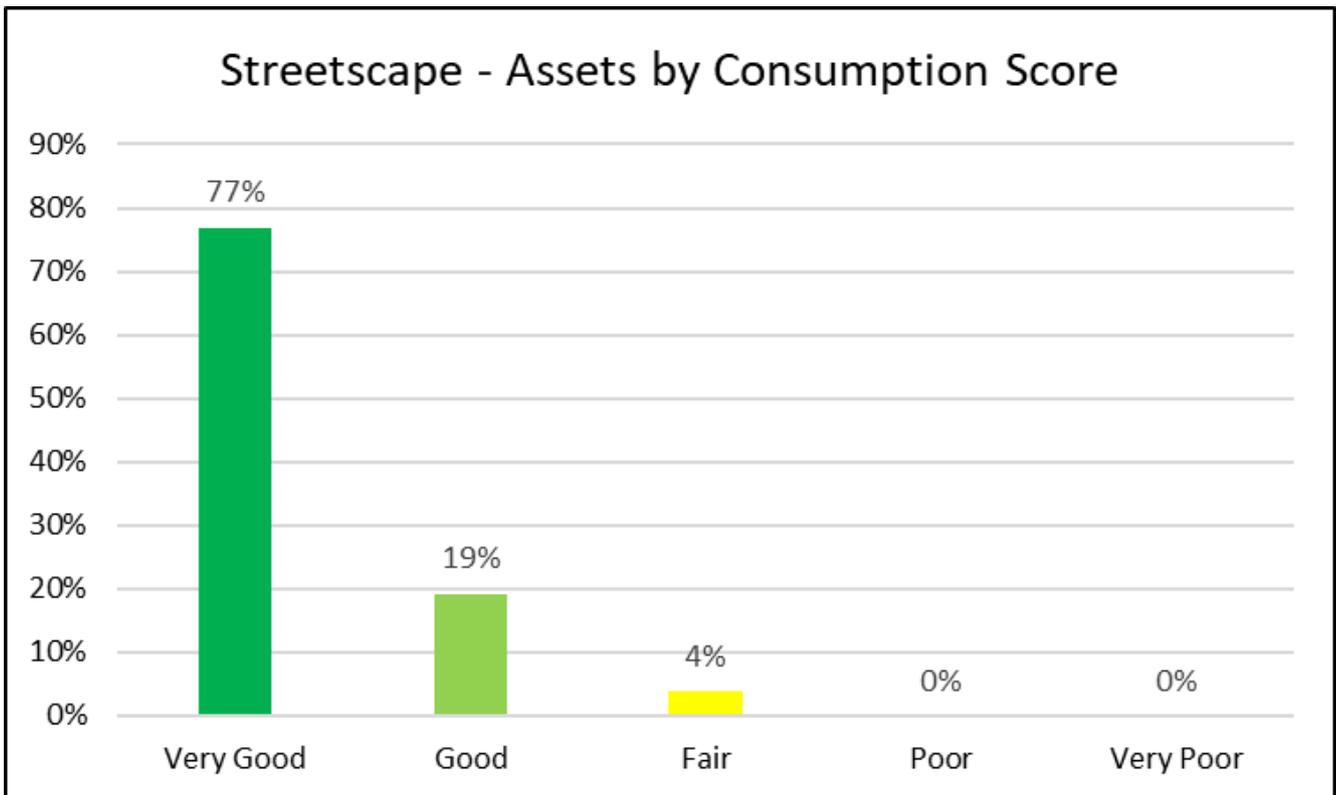
Figure 7: Streetscape - Assets by Consumption Score. (Count = 26).
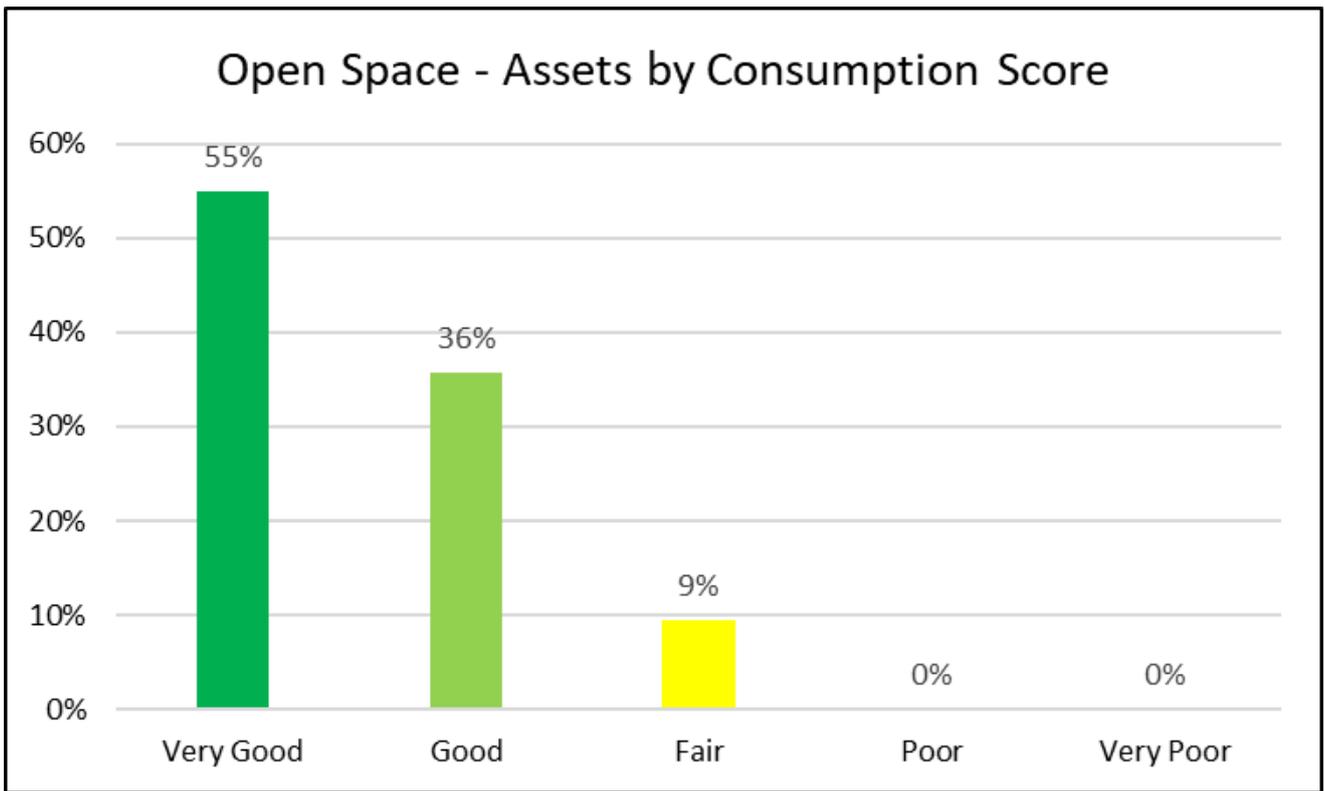
Figure 8: Open Space - Assets by Consumption Score. (Count = 202).

What does this mean?

The condition profiles based on the Consumption Scores shown above for Council's parks and Open Space assets require further validation to verify that the data gathered and analysed in 2021 is accurate and reflective of actual performance.

The profiles based on the Consumption Scores show that the assets are generally in Good and Very Good condition with few assets to be scheduled for renewal.

Asset Type	Asset Consumption Scores				
	Excellent/ Very Good	Good	Satisfactory	Poor	Very Poor
Cemeteries	39%	61%	0%	0%	0%
Swimming Pools	44%	44%	13%	0%	0%
Streetscapes	77%	19%	4%	0%	0%
Open Space	55%	36%	9%	0%	0%

Figure 9: Consumption Scores Summary - Parks and Open Spaces Assets.

5.2   Operations and Maintenance Plan

Operations and maintenance plans are designed to enable existing assets operate to their service potential over their useful life. This is necessary to meet service standards, achieve target standards and prevent premature asset failure or deterioration.

Council's objectives in maintaining and operating parks and open spaces assets are:

- Maintain assets so that they are safe, serviceable, hygienic, and well presented to the satisfaction of Council and the community
- Maintain and preserve the functionality and value of the existing assets.
- Provide and maintain a safe environment for the community within the constraints of Council's financial capacity and resource capability, while displaying a reasonable 'duty of care'.
- Ensure the provision of excellent customer service and that customer requests are responded to quickly and efficiently.

Operations are those activities that keep an asset appropriately utilised. Operations are considered to have no effect on asset condition and include tasks such as mowing of public areas, inspection of playground facilities, litter collection, provision of utilities such as water and electricity, etc.

Servicing (operations) and maintenance of assets is carried out to ensure that Council's parks and open spaces infrastructure achieves its service potential while meeting the needs of users. This is achieved by providing an optimum level of maintenance and care in a financially and environmentally sustainable manner. Typical servicing includes mowing, trimming, pruning and litter/rubbish collection and removal. Typical maintenance activities include mulching, replacing dead plants, pruning street trees, top dressing fields, clearing drains and maintaining internal footpaths and walking tracks.

Both operations and maintenance can be planned or reactive activities. Planned or cyclical tasks are programmed to occur at set times or frequencies throughout the year, while reactive tasks are undertaken in response to service requests or due to unforeseen asset failures or system interruptions.

5.2.1   Operations and Maintenance Arrangements

Operations and maintenance activities for Council's parks and open spaces assets is generally managed by Council's maintenance coordinators.

The various activities associated with operations and maintenance of parks and open spaces assets is delivered using inhouse resources which is sometimes supplemented using contractors.

5.2.2   Maintenance Standards

The standard of work for repair and maintenance of Council's parks and open spaces assets is that typically provided to ensure that the works carried out are suitable for purpose.

5.2.3   Inspections

For Council to carry out effective planning and competent management of the extensive network of parks and open space facilities and assets, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole portfolio. Council's inspection activities can be grouped into the following categories based on definition and purpose:

Inspection Type	Description	Current Status
Reactive Inspections	Reactive inspections are initiated generally by requests for maintenance received from asset users. Council's objective in relation to maintenance requests is to inspect and prioritise the work requests within specific timeframes.	Inspections or site assessments are undertaken in response to customer requests.
Planned Inspections	Planned or maintenance inspections involve a visual investigation to assess the condition of sub-elements or asset components. These inspections provide a basis for urgent, preventative, cyclic maintenance needs and, capital works planning.	Planned inspections of Council's parks and open spaces are carried out at regular intervals.
Condition Inspections	A condition audit is a systematic inspection and identification and recording of the physical and functional adequacy of assets. The purpose of these inspections is to provide an input for life-cycle cost analysis, and asset planning purposes. This level of inspection does not identify detailed maintenance requirements but provides a basis for managing the asset portfolio from a strategic perspective.	Condition inspections of Council's parks and open space facilities and assets are undertaken every 4 years.

Table 16 - Asset Inspection Type Summary

5.2.4 Existing Operations and Maintenance Costs

The existing operations and maintenance expenditure on parks and open spaces assets is shown in Figure 10.
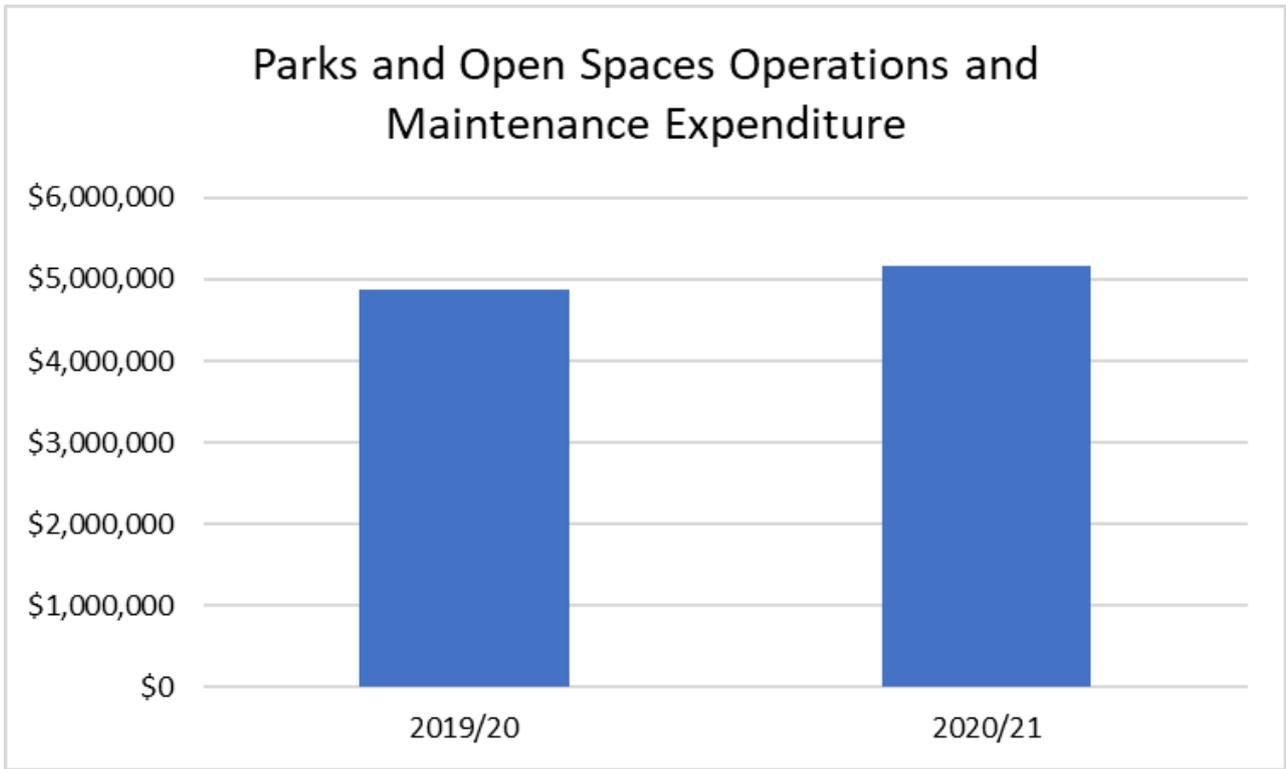
Figure 10: Parks and Open Spaces Operations and Maintenance Expenditure.

5.2.5 Future Operation and Maintenance Costs

Future operation and maintenance costs are forecast to trend in line with the value of the asset stock as shown in Figure 11. Note that all costs are shown in current 2021/2022 dollar values (i.e., real values).
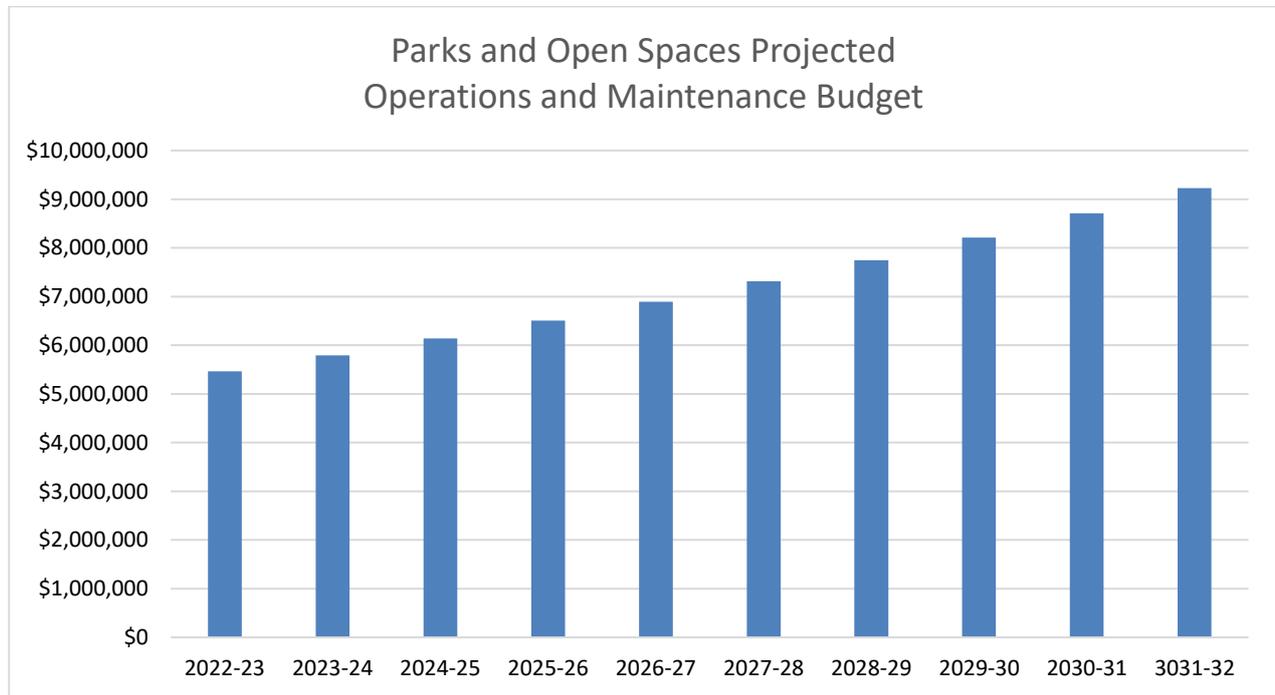

Figure 11 - Projected Operations and Maintenance Expenditure

What does this mean?

Figure 11 outlines the forecast operations and maintenance budgets based on our understanding of the current levels of service delivered for our parks and open spaces assets. The operations and maintenance budget for 2022/23 is $5.462 million. Forecast allocations for parks and open spaces assets maintenance and operations have been assumed to increase in line with the escalation factors outlined in our Resource Strategy plus provision for new assets.

5.3   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 an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified using a combination of an analysis of the long-term financial needs at a network level and Council's asset information to identify specific assets requiring renewal at a project level. As a general principle the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its performance, rate of deterioration, and a prediction of the optimum time to renew.

As the rate of repairs increase a prediction can be made about the optimum time to renew an asset to keep the cost of ownership at the optimum level.

5.3.1   Renewal Standards

Council's construction standards are based on various standards necessary to accommodate the demands and technical requirements placed on our assets.

All renewal works shall comply with Council's standards and specifications for design and construction that apply at the time. The design of parks and open spaces infrastructure renewal works will in all cases be undertaken by suitably qualified and experienced practitioners.

5.3.2   Renewal Ranking Criteria

In general, renewal works are prioritised and planned by assessing the following considerations:

- Safety issues.
- Physical condition.
- Risk and asset criticality.
- Community/user feedback.
- Location and use type and patterns.

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure.
- Have high use and subsequent impact on users would be greatest.
- Have a total value representing the greatest net value.
- Have the highest average age relative to their expected lives.
- Are identified in the AM Plan as key cost factors.
- Have high operational or maintenance costs.
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 17.

Criteria	Weighting
Quality (Risk of Failure)	30%
Condition	30%
Operating/Maintenance/Lifecycle Costs	20%
Functionality	20%
Total	100%

Table 17 - Renewal and Replacement Priority Ranking Criteria

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

5.3.3 Future Renewal and Replacement Expenditure

Renewal demand and expenditure forecasts for the assets covered by this plan are summarised in Figure 12. These forecasts have been extrapolated from the existing capital works program and calculated from the valuation data using the replacement cost and remaining useful life. It is intended that future calculations of the renewal program will be based on revised useful life criteria and regular condition inspections.

The following graph shows a comparison between the:

● The current calculation of the level of funding required to renew Council's parks and open spaces assets to achieve its service level objectives; and
● The renewal calculation using the existing valuation data.
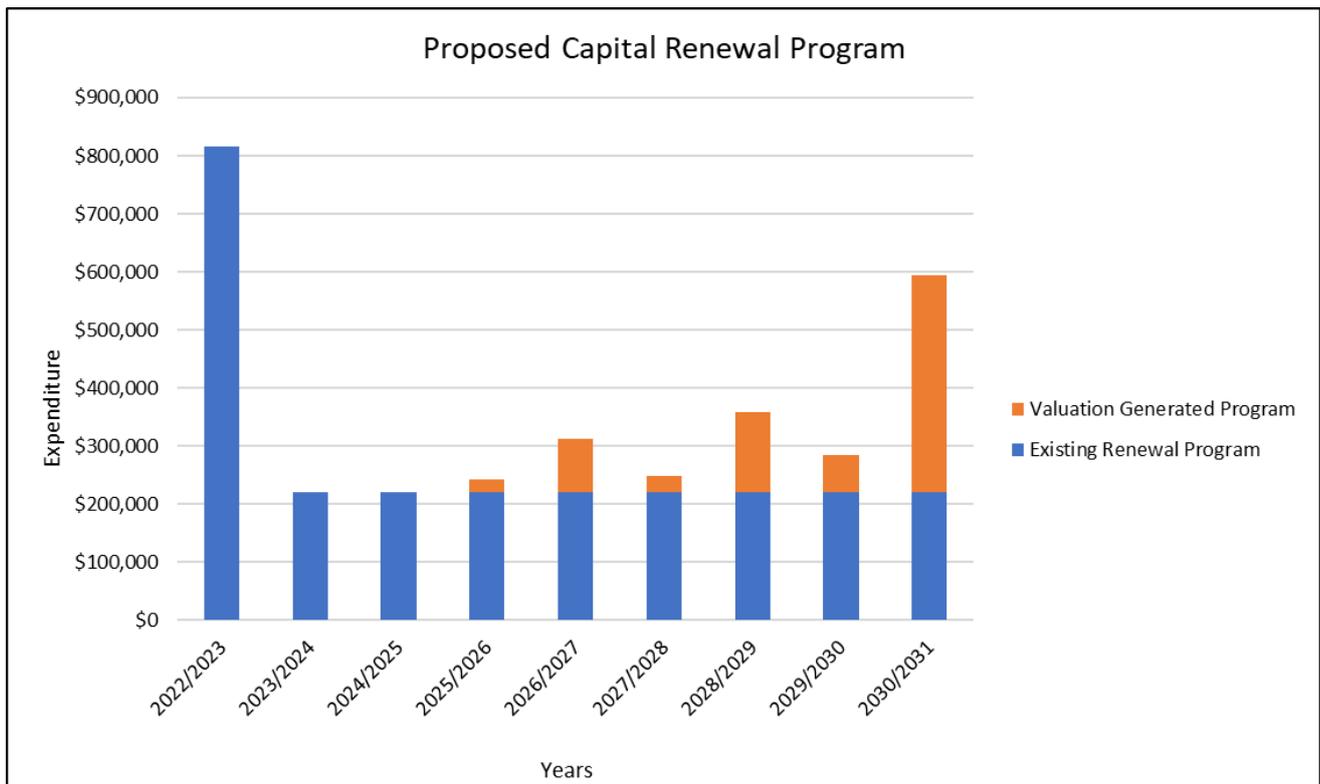
Figure 12 - Projected Capital Renewal and Replacement Expenditure (2022 dollars).

What does this mean?

It shows that the renewal program data generated from the valuation data may not be adequate on its own to be used for long term financial forecasting. A review of the Useful Lives, (the useful lives used in calculating the valuation data) may not represent in all cases the likely useful life to Council of the asset. As an example, playground equipment is generally shown in the valuations with a (weighted average) useful life of just under 40 years (which is theoretically possible).

It is much more common in Australian local governments for playground equipment to be replaced at intervals no longer than 15 years. This replacement interval takes into consideration the wear and tear on the playground equipment components, an anticipated lack of spare parts, changes to the demographics in a particular area, and the changes in play equipment generally given the ongoing changes in design and technology.

It is recommended that Council prioritise a review of useful lives used by Council in the valuations and asset management generally and seek to obtain a current condition assessment of all assets.

5.3.4 Renewal Modelling Assumptions

The analysis to determine Council's future asset renewal requirements is based on the best available information held at this time. The future funding forecasts will be revised and refined to best represent the performance of the asset base as the maturity of Council's asset management practices improves.

These renewal funding projections are based on the following assumptions:

- The renewal costs are based on the valuations as of 30 June 2021.
- Asset quantities within the asset register are assumed to be correct.
- Condition data is not available for parks and open spaces assets and Consumption Score has been used.
- Useful Service Lives derived from the asset register may not be accurate.
- Service levels are based on a technical assessment and may not reflect community expectations or the organisations goals and objectives.
- All projections are in present dollar value.
- There is limited growth in the asset base.
- Future renewal funding levels are generated from updated data.
- These projections only represent future asset renewal requirements at an overall network level. This modelling does not provide project level assessments or programs.

5.4 New Acquisition and Upgrade Plan

New works are those works that create a new asset that did not previously exist or works that upgrade or improve an asset beyond its existing capacity or performance. They may result from growth, changes in expectations, or social or environmental needs. Assets may also be acquired at no cost through developer contributions.

Within the context of parks and open spaces assets, new asset, or upgrade creation includes:

- Those works that create a new asset that did not exist in any shape or form, e.g., a new playground, new sports lighting to playing courts, etc.
- Works that improve an existing asset beyond its existing capacity or performance.
  - An extension to an existing asset.
  - Sustainability improvement projects.
  - Service or compliance upgrades.

There are occasions when Council is required to upgrade an asset because of changing demand or use requirements. In such instances, the project is scrutinised closely and is considered as part of the annual budget planning process.

5.4.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor/director or community requests, proposals identified by strategic plans or partnerships with other organisations. Verified proposals are ranked by priority and available funds and are scheduled in future works programmes.

Narrabri Shire Council acknowledges that the prioritisation of asset improvement works be undertaken in accordance with appropriate criteria to ensure alignment with Council's strategic direction and to deliver maximum and affordable community benefits.

Council has yet to prepare specific criteria to determine the priority for the investment of funding in the expansion and improvement in the parks and open spaces infrastructure network. Ranking criteria along with the applicable evaluation methodology will be developed as part of future revisions of this Asset Management Plan.

5.4.2 Standards and Specifications

As with replacements and renewals, where new assets are created, they are designed using all relevant design codes and Australian Standards.

Council aims to use materials that achieve the greatest asset life while trying to minimise maintenance costs and are environmentally sustainable.

5.4.3 Summary of Future Upgrade/New Assets Expenditure

Projected upgrade/new asset expenditures are summarised in Figure 13. All amounts are shown in current (real) dollars.

When Council considers discretionary capital expenditures for new or upgraded assets, it is essential to establish the consequential recurring operational and maintenance costs that will occur once the new or upgraded assets become operational. Understanding life cycle costs is part of being fully informed of future liabilities. As new projects are brought forward for consideration in annual budget deliberations, they will have to include an assessment of these ongoing operational (recurrent) costs to be presented to Council as part of the overall cost projections.
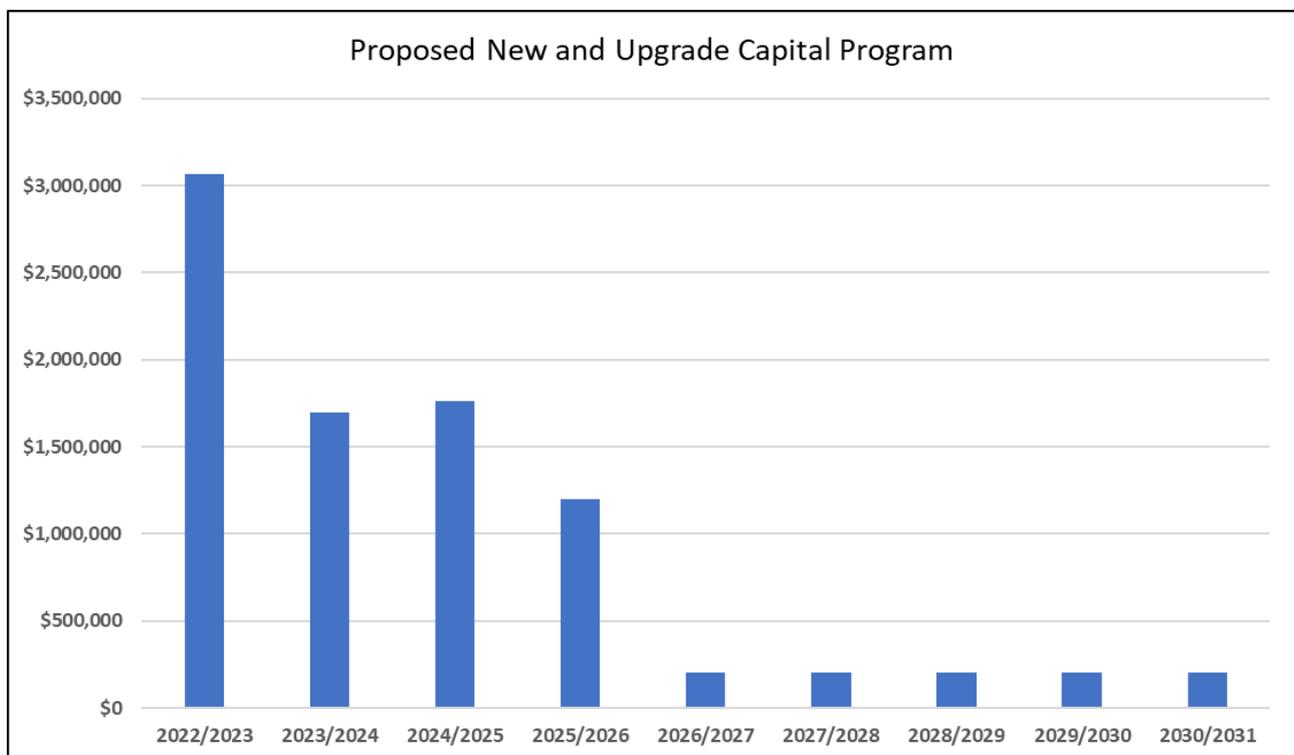
Figure 13 - Projected Capital Upgrade/New Asset Expenditure

What does this mean?

The expenditure shown in the graph above comes from the existing capital works budget. Council will undertake further work to populate the outer years.

5.4.4 Summary of Asset Expenditure Requirements

The financial projections from this Asset Management Plan are shown in Figure 14.

This covers the full lifecycle costs over the next ten (10) years to sustain current levels of service. Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates the funding that is forecast to be available.
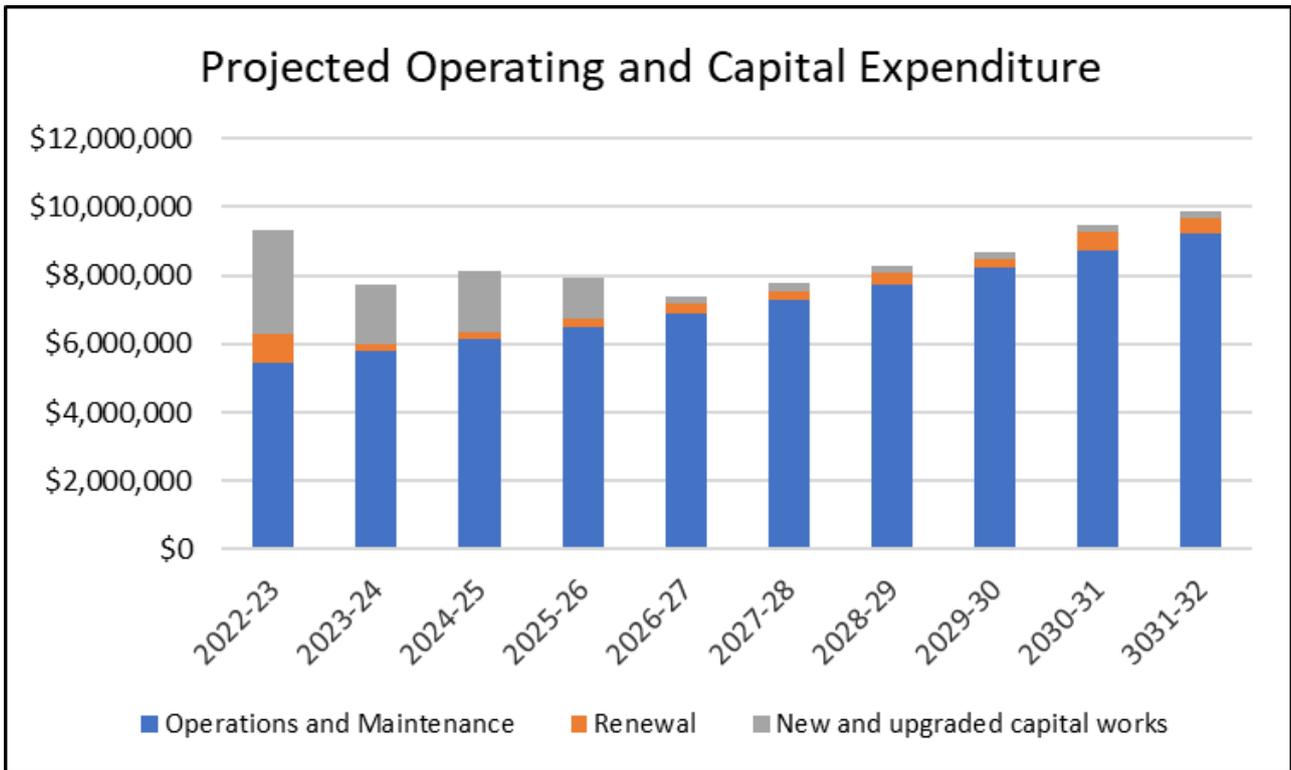
Figure 14 - Projected Operating and Capital Expenditure

Key Financial Performance Indicators for Current Projected Funding	
Total Lifecycle <u>Costs</u> over next 10 years (projected demand)	$95,686,300
Total Lifecycle <u>Budget</u> over next 10 years (from Long Term Financial Plan)	$95,686,300
Total Lifecycle Funding <u>Shortfall</u>	Under development
Average Lifecycle Funding <u>Shortfall</u> per annum	Under development
Percentage Lifecycle Funding Being Met	Under development

Table 18: Key financial indicators.

5.5   Disposal Plan

This includes activity associated with disposal of decommissioned assets including sale, demolition, or relocation. Assets identified for possible decommissioning and disposal deliver annual savings from not having to fund operations and maintenance of the assets. Any revenue gained from asset disposal will be accumulated into Councils long term financial plan.

The disposal plan will be developed once additional information is available for the 10 year capital works program.

6. RISK MANAGEMENT PLAN

The purpose of this section is to describe the basis of our strategic risk and investment policies and the way we will manage risk associated with our parks and open spaces assets.

6.1 Risk Management Process

Council's risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines and HB 436:2013 – Risk Management Guidelines.

The Framework is designed to provide the architecture for a common platform for all risk management activities undertaken by Council and is used to identify specific risks associated with Council's delivery of services and management of assets.

The objective of the risk management process with regards to Council's 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 us. The risk assessment process identifies and assesses risks, develops a risk rating, and develops a risk treatment plan for non-acceptable risks.

6.1.1 Risk Assessment

Network or system risks assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified by Council's asset risk assessment process are summarised in the

Risk Event	Risk Rating	Risk Treatment Mitigation Practice	Residual Risk
Deterioration of materials (e.g., splintering of log/timber or fibreglass components)	High	Regular inspections and replacement or repair of faulty components.	Low
		Results of inspections conducted using checklists and recorded.	
Soft fall is eroded or becomes contaminated.	High	Regular inspections.	Low
		Treatment and/or replacement of Softfall material.	
Broken or missing components.	High	Regular inspections.	Low
		Involve community in vandalism reduction program.	

Risk Event	Risk Rating	Risk Treatment Mitigation Practice	Residual Risk
Grass and plants are killed.	Medium	Ensure all herbicide users hold a current ACDC licence and are competently supervised.	Low
Grass and plants are killed. Contamination of surrounding waterways.	Medium	Ensure all fertiliser applications are performed by competent people in accordance with the manufacturer's directions.	Low
Lamps inoperative.	Medium	Regular inspection of lights.	Low
Injury to users, passers-by, and motor vehicles.	Medium	Mowing personal trained in the proper use of equipment.	Low
		Potential missiles removed before mowing where practical.	
Debris (including syringes) left around play area.	Medium	Regular inspections.	Low
		Involve community in vandalism reduction program.	
Surface becomes unusable.	Medium	Ensure annual maintenance program is funded for entire year.	Low
		Ensure maintenance personnel are trained and competently supervised.	
Litter and rubbish in park area	High	Involve community in vandalism and litter reduction program.	Low

Table 19 - Infrastructure Risk Register: Parks and open spaces Assets

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

6.2   Critical Assets

Critical assets are defined as those which have a high consequence of failure or reduction in service.

It is important to identify critical assets as well as the critical failure modes. This makes it possible to target and refine maintenance plans, capital expenditure plans, and investigative activities at the critical areas.

We have yet to formally identify critical components of our parks and open spaces network. A criticality framework will be developed as our asset management planning processes mature.

This framework will be embedded as part of future revisions of this Asset Management Plan.

7. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial forecasts made will be refined as Council improves its understanding of future asset performance and required levels of service.

7.1 Financial Statements and Projections

7.1.1 Asset Valuations

The value of the assets covered by this Asset Management Plan as recorded in Council's asset register as of 30 June 2021 are shown below.

Current Replacement Cost	$25,158,558
Accumulated Depreciation	$6,610,941
Depreciated Replacement Cost	$19,088,600
Annual Average Asset Consumption	$640,085

Assets are valued at fair value based on depreciated replacement cost according to Greenfield rates. Quantities represent those assets whose replacement cost meets Council's adopted capitalisation thresholds.

7.1.2 Asset Sustainability

Council uses the following indicators to measure asset sustainability:

- Asset renewal funding ratio, and
- Projected funding requirements compared with budget allocations (Long Term Financial Plan).

7.1.3 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio	100%

The Asset Renewal Funding Ratio is the most important indicator and shows that over the next ten (10) years we expect to have 100**%** of the funds required for the optimal renewal and replacement of assets according to our current Long Term Financial Plan.

7.1.4 Long Term Financial Planning

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide agreed levels of service over the next ten (10) years.

These projected funding requirements may be compared to the allocations projected from the Long-Term Financial Plan to determine possible funding shortfalls.

The projected operations, maintenance and capital renewal expenditure required over the 10-year planning period is ***$8.464 million*** on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is ***$8.464 million*** on average per year giving a 10-year funding shortfall of ***$0*** per year.

This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan. This represents Council's efforts in maintaining existing levels of service and excludes the provision of new and upgraded assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures, and financing.

7.1.5 Projected Expenditures for Long Term Financial Plan

Table 20 shows the projected expenditures for the 10-year long term financial plan. Expenditure projections are in 2021/2022 real values.

Year	Renewal	Upgrade/New /Expansion	Maintenance and Operations
2022	$815,000	$3,065,000	$5,462,591
2023	$220,000	$1,700,000	$5,790,347
2024	$220,000	$1,760,000	$6,137,768
2025	$241,500	$1,200,000	$6,506,034
2026	$311,960	$200,000	$6,896,396
2027	$249,120	$200,000	$7,310,180
2028	$357,792	$200,000	$7,748,790
2029	$283,440	$200,000	$8,213,718
2030	$594,580	$200,000	$8,706,541
2031	$426,670	$200,000	$9,228,933
Total	$3,720,062	$8,925,000	$72,001,298

Table 20 - Projected Expenditures for Long Term Financial Plan

7.2 Funding Sources

Funding for assets is provided from Council's annual budget and Long-Term Financial Plan.

Council's financial strategy determines how funding will be provided, whereas the Asset Management Plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

Council's Parks and Open Spaces Section operates at a deficit each year with operating income of around $250,000 and operating expenditure of $5.0 million (including depreciation). Revenue is raised through charges for:

- Events in parks
- Use of lights at sporting ovals/fields

- Cleaning fees
- Burials
- Plot reservations

Council uses several different funding sources to maintain, renew and improve its parks and open spaces assets. These are:

Activity	Funding Source
Maintenance and Operations	- Council's own source funds
Renewal	- Council's own source funds - External grant opportunities
Capital Improvement **(i.e., new, upgrade, and expansion)**	- Council's own source funds - External grant opportunities - Special Charge Schemes - Developer contributions and donated assets

Table 21 - Funding Sources

7.3   Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Financial projections are forecast on present day dollars as of 30 June 2022.
- Staffing needs are resourced adequately.
- Current levels of service reflect the community needs.
- No known legislative changes or other influences that will impact on or demand a change in level of service and associated funding throughout the period of the plan.
- Average growth in the replacement value of the asset base of 1.7% per annum (based on the forecasts for capital new and expansion in the Long-Term Financial Plan over the period of this Asset Management Plan.
- Provision for new works is based on phased implementation of new and upgrade needs to meet future growth.
- Projected renewal required to achieve overall asset condition grade of 'Poor" or better.
- Increases in operating and capital budgets are consistent with the Long-Term Financial Plan.

7.4 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a five (5) level scale in accordance with Table 22.

Confidence Grade	Description
A – Highly reliable	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B - 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 ± 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 ± 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 ± 40%
E - Unknown	None or very little data held.

Table 22 - Data Confidence Grading System

The estimated confidence level for and reliability of data used in this Asset Management Plan is **_Uncertain_** at this stage.

The implementation of the improvement actions identified will result in increased levels of confidence in future revisions of this Asset Management Plan.

8. PLANNED IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices

Council currently uses the following corporate information systems for recording relevant asset data and information:

Module	System
Customer Request Management	TechOne
Financial/Accounting	TechOne
Records Management	TechOne
Mapping (GIS)	Intramaps
Asset Register	TechOne
Strategic Asset Management	TechOne Strategic Asset Management Module (yet to be implemented for building assets)
Mobile Solutions	TechOne mobile platform (yet to be implemented for building assets)
Works Management	TechOne (yet to be implemented for building assets)

Table 23 - Overview of Corporate Systems

The asset management information system underpins asset management capacity and capabilities and is a key source of information for decision making, coordination of operations, and performance reporting.

8.2 Improvement Plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table 24.

his first-generation asset management plan has been developed based on existing processes, practices, data, and standards.

Council is committed to striving towards best appropriate asset management practices and it is recognised that this asset management plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's asset management plans are 'living' document that should always reflect as closely as practicable actual practices used in managing our assets. Only in this way will Council be best able to ascertain its long-term financial needs for the network. A number of improvement actions have been identified which will enhance Council's capability for managing those assets covered by this plan.

8.3   Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services because of budget decisions.

The Asset Management Plan 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 Long-Term Financial Plan.

The Asset Management Plan will have a life of four (4) years and will be completely reviewed and updated in order to inform the development of the Community Strategic Plan, the Operational and Development Plan, and the Long-Term Financial Plan.

8.4   Performance Measures

Performance measures will be developed to ensure that work practices and the Asset Management Plan are reflective of each other.

The performance of the Asset Management Plan shall be monitored against the following criteria in accordance with the process detailed below.

- Maintenance and renewal programs - to confirm that allocated budget projects were delivered on time, within budget and to the specified level of service (see following item on delivery performance).
- Inspection programs - to confirm that they were undertaken as specified in the asset management plans and any other service level agreements which may be in operation including Council's.
- Scheduled condition surveys – to confirm that they were undertaken as required.
- Maintenance of asset information systems - to ensure that stored data is current and accurate.
- External factors - including legislative requirements, ongoing development of Council policies, plans, and other major system implementations, that may affect the contents of the asset management plan.

Item No.	Task	Responsibility	Priority	Resource Type	2022/23	2023/24	2024/25
1	Collect inventory and condition data for all open space assets. Include additional lifecycle management considerations in future data collection activities (e.g., capacity, function, sustainability).	Parks Services Asset Services	High	Contractor	✓		
2	Undertake a review of the useful lives of all park and open space assets.	Parks Services Asset Services	High	Internal	✓		
3	Undertake a review of the park classifications with a view to including streetscapes and other non-park landscapes which are serviced and maintained by the Parks Department.	Parks Services Asset Services	Medium	Internal	✓		
4	Undertake a review of the Sporting Facilities to determine the reasons for the satisfaction survey results being under the benchmarked other council results.	Parks Services Asset Services	Medium	Internal	✓		
5	Ensure all items from the Corporate Plan are listed in future budgets.	Parks Services Governance Asset Services	Medium	Internal	✓	✓	
6	Develop program to increase shade to playgrounds, recreational and appropriate sporting facilities.	Parks Services	Medium	Internal		✓	

Item No.	Task	Responsibility	Priority	Resource Type	2022/23	2023/24	2024/25
7	Develop a program for upgrading spectator areas, shade covers and seating for sports facilities.	Parks Services	Medium	Internal		✓	
8	Implementing functionality of our corporate Asset Management Information System support maintenance planning for parks and open space assets and to enhance data capture and activity tracking.	Asset Services	Medium	Internal		✓	✓
9	Develop a project-based ten (10) year capital works program for renewals, upgrades, and new works.	Projects and Assets	Medium	Internal	✓	✓	
10	Improve current asset handover processes so that data for this asset class is accurate and new assets are incorporated into existing maintenance schedules along with requisite budget adjustments.	Projects and Assets	Medium	Internal	✓	✓	
11	Complete service planning for Parks and Open Space Services to inform future budget and asset requirements.	Parks Services Asset Services	Medium	Internal	✓	✓	
12	Formalise evaluation criteria and process to prioritise and plan capital improvement and renewal projects.	Projects and Assets	Medium	Internal		✓	✓

Table 24 - Improvement Plan

2022 Water and Wastewater Asset Management Plan

Document Control

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	Date: June 2022
	Synopsis: Water and Wastewater Asset Management Plan

CONSULTANTS DISTRIBUTION SCHEDULE

Version No.	Date	Distribution	Reference
1.0	04/05/2022	Narrabri Shire Council	Draft
1.1	09/06/2022	Narrabri Shire Council	Revised draft

SCHEDULE OF ADOPTION

Version No.	Date	Comment	Resolution
1.2	16/05/2022	Endorsed for Public Exhibition	130/2022
1.3	28/06/2022	Adopted	

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1. EXECUTIVE SUMMARY

1.1 Purpose of the Plan

This Asset Management Plan has been developed in accordance with Council's Asset Management Policy and principles of the Asset Management Strategy (Objectives).

This asset management plan details information about Council's water and wastewater assets. The plan outlines the management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning);
- Managing the future demand for assets to achieve and maintain financial sustainability;
- Optimising the lifecycle management of assets (achieving service demand at lowest lifecycle cost);
- Identifying and managing risks associated with the relevant asset classes (including criticality and condition);
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the asset management plan over a 10-year planning period; and
- Continual improvement in the management of assets and performance monitoring.

Council's water supply and wastewater assets contribute to the community by:

- Treatment and supply of essential or potable water for the public.
- Conveying and treating of wastewater.

1.2 Asset Description

Council is responsible for providing potable water to connected residential areas of Narrabri, Wee Waa, Pilliga, Boggabri, Baan Baa, Gwabegar, and Bellata.

Council is not responsible for maintenance of on-river weirs, Namoi River or maintenance of weirs and storage systems on any other systems. Council is responsible for a number of bore offtakes and the associated storage.

Summary of Water assets	Quantity
Total number of water connections	4,724 No.
Sub artisan drinking quality bores	11 No.
Non potable bores (parks & open spaces)	0
Water reservoirs	11 No.
Water towers/high level reservoirs	18 No.
Narrabri water main	77,637 million
Wee Waa water main	26,763 million

Summary of Water assets	Quantity
Boggabri water main	34,456 million
Gwabegar water main	3,840 million
Pilliga water main	4,946 million
Bellata water main	5,292 million

These water supply infrastructure assets have a significant replacement an estimated value of **$75 million**.

Wastewater Asset Classification	Quantity
Sewer Connections	4,068 No.
Sewer Treatment Plants	3 No.
Sewer Pump Stations	23 No.
Narrabri mains Gravity & Rising	96,704 m
Wee Waa mains Gravity & Rising	22,795 m
Boggabri mains Gravity & Rising	16,203 m

These wastewater infrastructure assets have a significant replacement (estimated) value of **$120 million.**

1.3 Levels of Service

Currently, our Council is in the process of developing documented levels of service for water and wastewater assets. Service levels are however governed by state and national bodies. Management of assets, including intervention points and chosen treatment methods, is to be developed, when completed it is anticipated that this will be based upon standard classifications based on the asset hierarchy. This is a key improvement area required to direct our future management approach and investment in water and wastewater assets.

Generally, the levels of service are:

- Water
- Availability of service
- Bores
- Connections to property within defined areas
- Water quality
- Chlorination
- Turbidity
- Water reticulation
- Reservoirs
- Reticulation

- Pressure
- Technical aspects and customer service
- Management & operation of the related assets.
- Reaction times to failures, issues, general enquiries.
- Sewage
- Availability of service
- Storage facilities
- Connections to property within defined areas
- Quality
- Outflow of sewage to the environment (managed * unmanaged/incidents)
- Effluent quality
- Odours
- EPA guidelines
- Sewer reticulation
- Treatment facilities
- Pumping
- Reticulation
- Technical aspects and customer service
- Management & operation of the related assets.
- Reaction times to failures, issues, general enquiries.

1.4 Future Demand

According to the projections calculated by the Department of Planning and Environment, the population of the Narrabri Shire Council local government area will decrease over the next 20 years. However, a number of projects identified by Council may increase the population through construction workers and their families and a lesser number of ongoing jobs following construction. The main demands for new services are created by:

- Population changes and both decreased and increased development creating an increase in demand for water supply and demand on the wastewater network and treatment facilities
- Council financial sustainability.
- Council operational and services priority changes.
- Expectations for increased levels of service provision.
- NSW Government precincts for commercial developments and other NSW Government initiatives.

These will be managed through a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand and demand management.

We will implement demand management practices to control future increased costs of water and wastewater assets, including the consideration of non-asset solutions. We will also mitigate the increased threat (risk exposure) of asset and system failure by planning network improvements to coincide with development and major land use changes.

1.5   Financial Summary

1.5.1   What Does it Cost?

The projected outlays necessary to provide the services covered by this plan include renewals over the 10-year planning period which are on average $1,84 million per annum.

These figures generally do not include:

- Planned network upgrades.
- New infrastructure funding requirements to meet desired levels of service; or
- Whole of asset Condition based maintenance works.

All new and upgrade water and wastewater programs and planned projects will need to be added to the base renewal demand figures identified below.

It has been assumed that water and sewer asset conditions generally sit in the 3, Satisfactory to 4 and 5, poor to very poor condition. longer asset useful lives are assigned to the water network and less so for the wastewater network assets. Largely, the renewal demand amount has not been forecasted over the forward 10 years (with the exception of the Narrabri Sewer treatment plant).

These renewal demand figures for both networks would be expected to grow beyond the forward 10- and 20-year forecast horizon as the water and wastewater networks assets age and a larger number reach their renewal intervention point.

Financial Year	TOTAL
2021/2022	$1,840,000
2022/2023	$1886,508
2023/2024	$1,933,671
2024/2025	$1,982,012
2025/2026	$2,031,563
2026/2027	$2,082,352
2027/2028	$2,134,411
2028/2029	$2,187,771
2029/2030	$2,242,456
2030/2031	$2,298,527

The annual operational budget for water supply network is estimated to be and average **$1.1 million** per year (based on 2021 figures) and the annual operational budget for the wastewater network is **$.74 million** per year (based on 2021 figures). This covers activities such as main clearing, pipe debris/ silt removal and maintenance of pump stations and treatment plants within the water and wastewater asset portfolios.

1.5.2 What we will do with constrained funding

Council plan to provide the following water supply and wastewater related services:

- Operation, maintenance, renewal and upgrade of water supply mains, sewer gravity mains, sewer rising mains, pump stations, fittings, and water and sewer treatment plans to meet service levels set by Council in annual budgets
- Pursue State Government grants for renewal and upgrade of water and wastewater assets (where applicable).
- Plan asset condition assessments, renewal, rehabilitation, and upgrade to ensure that the highest priority assets are targeted for renewal each financial year. Prioritisation will be based on risk and impact to local areas.

Council's condition information indicates that the overall water supply and wastewater networks are in average condition. This data has been supplied based on general observations. Council needs to conduct as asset condition evaluation of its assets to fully determine its position.

The accuracy of this information should be verified to determine if the measured condition is reflective of asset performance prior to any major funding decisions being made.

1.5.3 What we cannot do with constrained funding

Works and services that cannot be provided under present funding levels are:

- An increased overall level of service delivered by water supply and wastewater assets.
- Upgrade of all identified functional deficiencies across the overall water supply and wastewater networks (some areas are being addressed by the upgrade program); and
- Upgrade of local water supply and wastewater networks based on demand or on request.

2. Introduction

2.1 Background

This Asset Management Plan outlines the required management approach to:

- Describing and aligning the assets to services (as informed by corporate and service planning).
- Managing the future demand for assets to achieve and maintain financial sustainability.
- Optimising the lifecycle management of assets (achieving service demand at the lowest lifecycle cost).
- Identifying and managing risks associated with the relevant asset (including criticality and condition).
- What funds (operating and capital) are required to operate the asset portfolio in alignment with the asset management plan over a 10-year planning period (at this time a 20-year planning period is not feasible until furthermore detailed asset management works is concluded); and
- Continual improvement in the management of assets and performance monitoring.

The Asset Management Plan (AMP) is to be read with the Council's Asset Management Policy and Asset Management Strategy, along with the Council Community Strategic Plan and Council Operational Plan.

Figure 1 shows the different documents that influence and inform this Asset Management Plan.

Community Strategic Plan

Delivery Program and Operational Plan

Asset Management Policy

Asset Management Strategy

Parks and Open Spces Asset Management Plan

Figure 1 - Asset Management Document Relationship

The infrastructure assets covered by this AMP are shown in Table 1. Narrabri Shire Council's water supply and wastewater portfolio of infrastructure is provided to the community to facilitate effective delivery of water supply and wastewater management services throughout the municipal area.

Asset Class	Asset Type	Asset Quantity	Unit	Replacement Cost	Fair Value	Accumulated Depreciation	Annual Depreciation
Water Supply Mains	Filtered	152.934	mm	$52,245,232	$26,303,585	$25,941,646	$687,809
Water Connections		4,724	No.				
Bores (potable water)		11	bores	$2,859,577	$597,290	$2,262,287	$68,361
Water Treatment Plants		7	plant	-	-	-	-
Storage (reservoirs & tanks)		18	No.	$20,032,797	$8,485,038	$11,547,758	$270,433
TOTAL				$75,137,606	$35,385,913	$39,751,691	$1,026,603

Table 1 – Water Supply Portfolio Assets (Note: will be updated once 2022 revaluation data is available)

Asset Class	Asset Quantity	Unit	Replacement Cost	Fair Value	Accumulated Depreciation	Annual Depreciation
Sewer Rising Mains	14500	km	$14,650,069.90	$8,378,404.28	$6,271,665.62	$220, 373.64
Sewer Gravity Mains	125,202	km	$60,703,244.59	$15,948,835.99	$44,754,408.99	$512,219.28
Sewer Manholes	4,068	no	-	-	-	-
Sewer Pump Stations	23	sites	$18,176,120.97	$6,113,387.15	$12,062,733.82	$276,763.92
Sewer Treatment Plants	3	sites	$26,229,347.62	$9,405,352.82	$16,823,994.80	$347,927.26
TOTAL			$119,758,783.08	$39,845,980.24	$79,912,802.84	$1,357,284.10

Table 2 –Wastewater Portfolio Assets (Note: will be updated once 2022 revaluation data is available)

2.2   Plan Framework

This Asset Management Plan has been prepared using good practice guidance from the ISO55001 – Asset Management Standard and the International Infrastructure Management Manual (IPWEA).

Council is committed to striving towards best appropriate asset management practices and it is recognised that this asset management plan will need to be updated periodically to reflect changes to management of Council's assets.

It is intended that Council's Asset Management Plans should always reflect as closely as practicable actual practices used in managing its assets. Only in this way will Council be best able to ascertain its long-term financial needs for delivering sustainable assets and services.

2.3   Key Stakeholders

Council assets are utilised by a broad cross-section of the community. The stakeholders in the management of Council's water and wastewater assets are many and often their needs are wide-ranging. The relevant key stakeholders are:

- The community in general.
- Residents and businesses.
- The Shared Farming scheme, Federation Farms.
- State Government bodies such as EPA, NSW Water, NSW Health, Environment and Natural Resources Accounting (NRAR), Department of Environment and Planning.
- State and Federal Government that periodically provide support funding to assist with management of the water and wastewater networks; and
- Council's Insurers.

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding. This plan will demonstrate to the various stakeholders that Council is managing its water and wastewater related assets in a responsible manner.

2.4   Goals and Objectives of Asset Ownership

Narrabri Shire Councils goal in managing infrastructure assets is to meet the defined range and levels of service in the most cost-effective manner for present and future consumers. By achieving the most cost-effective approach, we will contribute the affordability and liability of our community, including a vibrant, growing, and efficient local economy. 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 that meet the defined levels of service.
- Identifying, assessing, and appropriately controlling risks; and
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

3. Levels of Service

This section outlines the level of service or performance criteria that are required and the basis of the decision behind their adoption. The levels of service support Council's strategic goals and are based on customer expectations and statutory requirements.

3.1 Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of our vision, mission, strategic directions, and strategies.

Council's vision is:

> *The Narrabri Shire will continue to be a strong and vibrant regional economic growth centre providing a quality living environment for the entire community.*

Relevant Council strategic directions and objectives can be found on the Community Strategic Plan. Details on the specific actions we will implement to address these objectives are outlined in our Operational Plan and Delivery Program.

Council will continuously exercise our duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan.

3.2 Asset Functional Classification and Hierarchies

All water and wastewater assets within the Council water and wastewater networks are classified according to a hierarchy in terms of their specific function, number of customers supplied and potential risk. The hierarchy classification is used to assist in prioritising works programs and intervention responses to remedy defects.

Limited resources can be used more effectively by allocating funds to those water and wastewater assets in greater need. The water and wastewater networks network hierarchy provide the basis for setting varying inspection frequencies and the maintenance response times is also based on the water and wastewater network hierarchies and risks arising. This simple classification system aligns with the levels of service that Council can and does physically provide.

3.3 Water Supply Network Classification/ Hierarchy

The following table outlines the existing water supply network classification/ hierarchy to be used to guide maintenance practices along with works prioritisation.

Water Supply Hierarchy Category	NSC Asset Management Definition
Reticulation	Including mains and service meters. All water supply rising mains and all associated fittings along trunk or rising main assets.
Pumping Stations	Including Chemical dosing, process control, sites & buildings, and utilities

Water Supply Hierarchy Category	NSC Asset Management Definition
Bores	Including Chemical dosing, process control, sites & buildings, and utilities.
Storage	Including chemical dosing, process control and sites and buildings.

Table 3 – Existing Water Supply Asset Classification Hierarchy

3.4 Wastewater (Sewer) Network Classification/ Hierarchy

The following table outlines the existing wastewater network classification/ hierarchy to be used to guide maintenance practices along with works prioritisation.

Wastewater Hierarchy Category	NSC Asset Management Definition
Collection	Including mains, pumping stations and valves. This includes all trunk infrastructure sewer gravity mains servicing the broader catchment. All sewer rising mains and all associated fittings along trunk gravity mains or rising main assets.
Treatment plant	Including Effluent reuse, preliminary treatment, primary treatment, process control, secondary treatment, sites facilities and buildings, sludge treatment and storage and utilities.

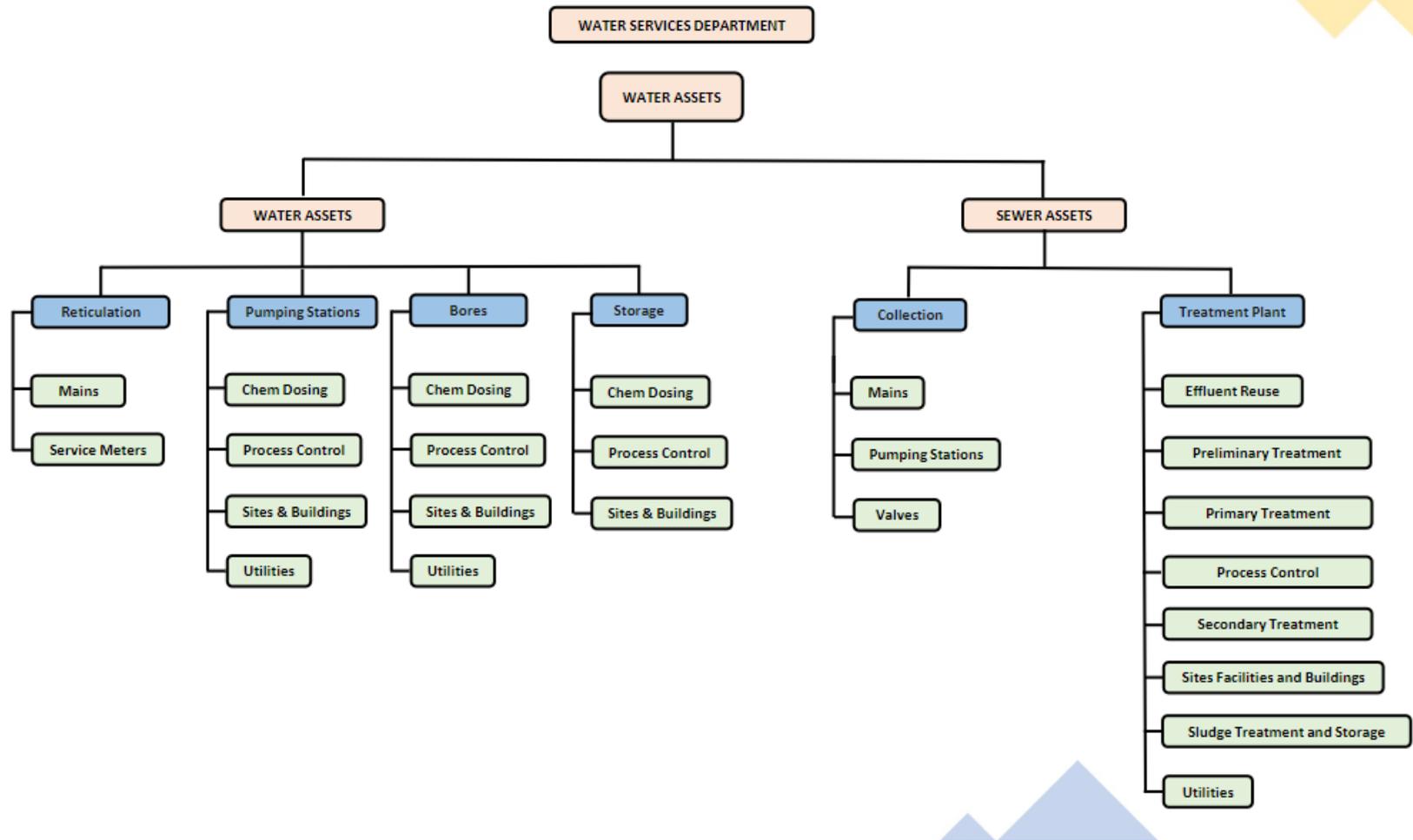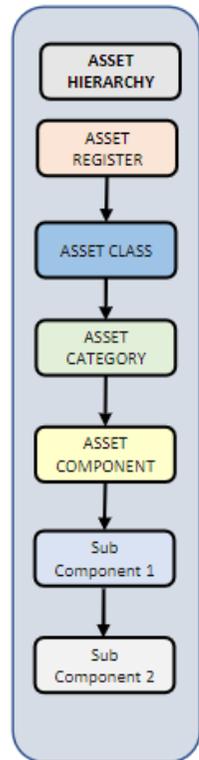*Table 4 – existing Wastewater Asset Classification Hierarchy*

Table 5 – existing water & wastewater Asset Classification Tree Hierarchy

3.5 Levels of Service

Service levels can be defined in two interconnected ways, customer levels of service and technical levels of service. These are supplemented by organisational measures which are, the Operational and Delivery Plan, and the Annual Budget. Service performance results are reported through Council's Annual Reports.

At present, indications of current and target levels of service are obtained from various sources including:

- Residents' feedback to Council and staff.
- Operations staff feedback to management.
- Feedback from other stakeholders.
- Service requests and related correspondence entered in Council's Customer Request/Complaints System.
- Physical measurements of quality standards.
- Legislative standards (minimum requirements).

3.5.1 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided. Customer levels of service measures used in the AMP are:

Quality	How good is the service e.g., what is the condition or quality of the service?
Function	Is it suitable for its intended purpose e.g. *Is it the right service?*
Capacity/Use	Is the service over or under used e.g., *do we need more or less of these assets?*

Table 5 - Customer Level of Service Measures

Organisational measures are measures of fact related to the service delivery outcome e.g., number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very Good. These organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Quality	The water supply and wastewater networks are of an appropriate condition and standard	Percentage of asset identified in poor condition/ below intervention Annual Community Satisfaction Survey	To be determined	To be determined

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Performance	Target Performance
Function	The water supply and wastewater networks will meet standards of service for delivery of potable water and sewerage management	Percentage of network meeting delivery of water supply and wastewater management level/ standard Number of public liability claims	To be determined	To be determined
Capacity	The water supply and wastewater networks will have appropriate capacity to handle demand	Percentage of new constructions which meet Council's designed standards	To be determined	To be determined

Table 6 - Customer Level of Service

3.6 Technical Levels of Service

Technical Levels of Service – Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Operations	**The regular activities to provide services (e.g., jet rodding, pipe/ main debris removal, clearing of manholes, access, inspections etc.)**
Maintenance	The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g., crack/ void patching, replacing a broken manhole)
Renewal	The activities that return the service capability of an asset up to that which it had originally (e.g., sewer pipe reline or replacement, replacement of pump station components)
Asset Improvements	The activities to provide a higher level of service (e.g., replacing an existing main with a new pipe of greater capacity)

Table 7 – Technical Level of Service Measures

3.6.1 Actual Levels of Service

Council recognises the importance that levels of service play in optimising the lifecycle management of infrastructure assets. For the assets covered by this plan, Council continues to work towards achieving the required service levels in practice. The proposed revised water supply and wastewater

network hierarchy will be utilised to frame levels of service for these asset classes. The development and monitoring of actual service levels will be one of the foundations of future improvement through the asset management planning process.

3.7 Customer Research and Expectations

3.7.1 Community Consultation

At this stage, target customer research has not been undertaken for Council's water supply and wastewater network assets. Council is committed to transparent and informed decision making in relation to the management of its assets and services through engagement with the community. Council undertakes inclusive community consultation to define service levels and performance measures through the development of its Community Strategic Plan, the Operational Plan, and Annual Budget. These discussions provide input to Council's strategic directions which are supported by the various services, projects, and programmes which its delivers.

Wherever practicable, community input is sought on appropriate aspects of planning our water supply and wastewater network infrastructure and by way of consultation. However, Council acknowledges that it needs to do more work with its community in developing levels of service and it will target discussions when making decisions which influence the way that Council delivers its services and manage our assets. Once service levels and budget funding issues have been properly reconciled, it is appropriate that Council should consult with the community to ensure that these service levels are meeting community expectations.

3.8 Legislative Requirements

There are many legislative requirements relating to the management of assets. For a detailed understanding of the requirements please refer to the Narrabri Property Service Plan. Generally, the requirements are outlined in the following table.

Legislation	Requirement
Local Government Act 1993 and the Local Government (General) Regulation 2021	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. Including integrated planning requirements for NSW Local Governments which cover asset management planning, long term financial plan and community strategic plan integration.
Water Supply (Critical Needs) Act 2019	The Water Supply (Critical Needs) Act 2019 facilitates the delivery of emergency water supplies to certain towns and localities and to declare certain development relating to dams to be critical State significant infrastructure.
Water Management Act 2000	The Water Management Act 2000 provides a framework for controlling the extraction of water, the use of water, the construction of works such as dams and weirs, and the carrying out of activities on or near water sources in NSW.

Legislation	Requirement
Water NSW Act 2014	The principal objectives the Act are to capture, store and release water in an efficient, effective, safe, and financially responsible manner and to supply water in compliance with appropriate standards of quality. The act also provides for the planning, design, modelling and construction of water storages and other water management works and to maintain and operate the works efficiently and economically and in accordance with sound commercial principles.
Public Health Act 2010	The Act addresses a range of public health matters, such as notification of diseases and conditions and the regulation of areas that have the potential to affect public health, such as drinking water, water cooling systems, skin penetration and public swimming pools. The Act sets out a series of legislative requirements governing a wide range of public health issues including water.
Work Health and Safety Regulation 2011	Sets out roles and responsibilities to secure the health, safety, and welfare of persons at work.
Roads Act 1993 & AS1742 (Traffic)	Consent under Section 138 of the Roads Act 1993 is required for any works or activities in the public reserve or in public roadway. Under the Roads Act, consent of the appropriate road authority is required for the following activities: erect a structure or carry out a work in on or over a public road to ensure compliance and uniformity with traffic control devices.
Environmental Protection Act 1994	Sets out guild lines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Civil Liability Act 2003 and Civil Liability Regulation 2014	To manage negligence, elements of a claim, duty of care, standard of care and causation and to address the requirements of sections 35 and 37.
Public Works Act, 1912	The Act provides the framework for an effective, efficient, environmentally responsible in relation to works and procurement of goods and services.
Independent Pricing and Regulatory Tribunal Act 1992	The independent pricing and regulatory tribunal act 1992 (NSW) provides a framework and independent regulation of the prices to be charged for services such as water, energy, and transport in NSW. The Act monitors service delivery, audits suppliers and oversees licence compliance to ensure the quality and reliability of these services.

Table 8 – Legislative Requirements

4. Future Demand

The objective of future and outline strategies to develop the assets to meet these needs.

4.1 Demand Forecasts and Impact on Assets

The high-level demand factors, drivers, projections, and their potential impacts on future service delivery and use of assets is identified and documented in the table below.

Demand Factor	Projection	Impact on Assets
NSW Government activation precincts for commercial developments.	The Inland Rail development will drive demand through economic growth impacting on commercial development. Gas developments including the $3.6bn Narrabri gas project.	Impact on increased demand resulting in the need for greater water and wastewater network demand and capacity. Potential impact on water quality and treatment assets. Potential impact on assets due to poorer quality wastewater entering the system.
Climate change	Highly variable climate and increased frequency and intensity of extreme rainfall and storm events. Increased likelihood of natural disasters. Water flows and availability in the region. Whilst bore levels are good this may be impacted by climate change; this is not fully understood? Potentially increased demand on bore systems by others in an event that they move from rivers and dams to bores as a more secure and viable source. Potential demand for more Council services if the community comes under pressure from climate change and climate events?	Shorter more intense rainfall which could result in infiltration into wastewater networks. Accelerated degradation of and reduced water supply and wastewater network asset life expectancy and increased lifecycle costs. Increased demands of aging assets.
Septic & trade waste	Septic & trade waste is currently taken out of the Council area. If this were brought into Narrabri this would increase demand. Commercial business (restaurants/other) grease traps and other waste management.	Impact on increased demand resulting in the need for greater wastewater network demand and capacity. Potential impact on water quality and treatment assets. Potential impact on assets due to poorer quality wastewater entering the system.

Demand Factor	Projection	Impact on Assets
Council financial sustainability	Reduced size of grants from other tiers of government not matching required asset expenditures.	Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. Increased need for maintenance and repairs.
Design standards and construction materials	Use of alternative materials/techniques.	Improved effectiveness and reduced life cycle cost.
Demand Factor	Projection	Impact on Assets
Council operational and services priority changes	Limited revenue growth to fund them placing pressure on all operations and services including asset provision and maintenance.	Decreased ability to fund timely renewal and upgrade of poor/very poor condition asset. Increased need for maintenance and repairs.
Ageing infrastructure	The water supply and wastewater networks are steadily ageing. Council will require a long-term renewal/ upgrade strategy over the medium to long term to maintain service levels. Asbestos Cement Pipe is a concern.	Without adequate funding over the long term the steadily declining condition of Council's water supply and wastewater networks assets will result in reduced levels of service and increased risk of failure.
Changes in customer expectations	A wide number of factors may lead to a change in expectations from the community.	Depending on the expectations, the level of service that Council is expected to provide may increase or decrease.
SCADA & Telemetry	The SCADA and associated telemetry system are made up of differing standards. This needs to be fit for purpose, standardised, trained, resourced). SCADA is an extensive monitoring system which is tied up with compliance, safety, efficiencies and if not managed will impact on all services and assets.	Will fail or be inefficient to manage, this will impact on assets and service delivery.

Demand Factor	Projection	Impact on Assets
Technological Change	Technology changes will enable alternative materials to be considered in the maintenance and replacement of assets in the future. There will also be changes to asset management technology, in particular the monitoring and data collection and capture.	These advancements in technology may require consideration of modifications to the published service levels, as and when appropriate. This is difficult to predict and necessitates monitoring internal and external trends to discover, test and establish new technologies.
Compounding	Some of the above aspects may be compounding if not managed. Compounding issues of aging assets, higher standards, increased demand, climate change, having strategies, providing training, resourcing the above may have short to medium term impacts on assets.	Compounding management, replacement, efficiencies on assets.

Table 9 – Demand Drivers, Projections, and Impact on Services

4.2   Demand Management Strategy

Demand management is not intended to reduce the scope or standard of services provided by an asset, but rather, it is concerned with aligning demand or expectation of service provided by an asset with the available resources to ensure that genuine needs are met and community benefit is maximised. Demand management components may include:

Component	Applicable Strategy(s)
Operation (modification of access to an asset)	Design guidelines which consider future demand factors and good design principles
Planning and incentives (Influence the use of an asset)	Plan network improvements to coincide with major land use changes to assist in demand management and minimise the need for physical water and wastewater infrastructure.
Education (promotion of alternatives)	Involve residents to reduce water use within development targeted education and marketing campaigns.

Table 9 – Water and Wastewater Demand Management Strategies

4.3   Strategic Direction

There are a number of existing strategies and plans which have been developed to provide a strategic response to the demands, challenges and opportunities which the ongoing management of the assets covered by this plan present. These documents include:

- Community Strategic Plan 2017 - 2027
- Operational and Delivery Plan
- Infrastructure Design Manual
- Water and Wastewater Network Maintenance Management Manuals
- Development Control Plans
- Narrabri Property Services Service Plan 2021.

5. Lifecycle Management Plan

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

5.1 Background Data

The water and wastewater network infrastructure for which Council is responsible is predominantly made up of 153km of filtered water supply mains, 14.5km of sewer rising mains, 121km of sewer gravity mains and 23 pump stations.

Figure 1 - Narrabri Shire Council LGA overview

5.2 Asset Condition

Asset condition is a measure of the health of an asset and is a key consideration in determining remaining useful life, as well as predicting how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well it can perform its function. Condition data is valuable for developing long term funding scenarios for strategic planning of Council's budget.

For the water supply and wastewater asset portfolios, the condition profile is compared by condition and asset area, length, or individual assets for each condition rating. This indicates the overall

condition profile of an asset by length or quantity assessed at each condition rating from 1-5 this is where 1-New, 3-Fair, 5-Failed/ end of life.

Narrabri Shire Council's asset condition data aligns with industry standard practices and condition assessment rating guides (IPWEA Condition Assessment Guidelines and industry standards for pavement defect identification and rating) and is generally supplied is in a 1-5 condition format. More detailed defect and condition data is also available for certain water and wastewater network asset types.

The condition profiles for the various assets which comprise Council's water and wastewater network infrastructure indicates that they are in a general state that promotes safety and efficiency. The overall condition of Council's water and wastewater network assets also indicates that Council have effectively invested in infrastructure over time.

Council should assess its infrastructure on a cyclic basis to confirm infrastructure quantity, condition and continue to monitor the water and wastewater network asset portfolio.

5.2.1   Water and Wastewater Asset Useful Lives

A range of useful lives apply to the water and wastewater network asset throughout the network. These lives are predominantly based on material type. The great majority of infrastructure in the water and wastewater network long asset useful lives. Some shorter life assets such as mechanical and electrical equipment components of pump stations and treatment plants have between 10-40 years useful life and require different asset management strategies compared to longer lived buried infrastructure.

Water and Wastewater Asset Type	Adopted Useful Life (years)
Water Supply Mains	70
Water Fittings (valves, hydrants)	65
Water Connections	70
Water Pump Stations	20-80
Water Treatment Plants & Storage	7-80
Sewer Rising Mains	70
Sewer Gravity Mains	70
Sewer Manholes	70
Sewer Connections	70
Sewer Pump Stations	10-80
Sewer Treatment Plants	10-80

Table 10 – Water and wastewater asset useful lives

5.2.1.1   Water supply network condition

The great majority of water supply mains have been constructed between the 1920's and 1960's:

- Narrabri: from 1950.
- Wee Waa: from 1939.
- Boggabri: from 1939.
- Gwabegar: from 1964.
- Pilliga: post 1970.
- Bellata: from 1954.
- Baan Baa from late 2010

Generally, the conditions of the assets are not understood. Council does not have a cyclical condition assessment. This is an ongoing concern for Council, and it make it hard to determine asset treatments, costs, timings, and resourcing.

Most towns have a large number of older mains which are reaching approximately 70+ years of age. A considerable portion of the network is reportedly in Asbestos Concrete. As these ages it becomes brittle and cracks, repairs become compounding on the risks. This is a major risk for Council.

Wee Waa's water assets are of growing concern. Water valves, and many network issues exist. More main brakes are occurring. The bores need assessments. Telemetry and Scada issues are an ongoing concern across the network and standardisation is inefficient.

The lifespan of water supply mains is considered to be 70 years, it is expected that the majority of water supply mains will continue to remain in service however a growing proportion will require renewal over the short term.

Council does not have any recent recorded asset conditional data. Council has nominated that the Water supply mains, fittings, and connection asset condition profiles are based on the assumption that the assets are a condition of 3 to 5. This is based on the age of the assets. The following table shows a breakdown of water supply components by group.
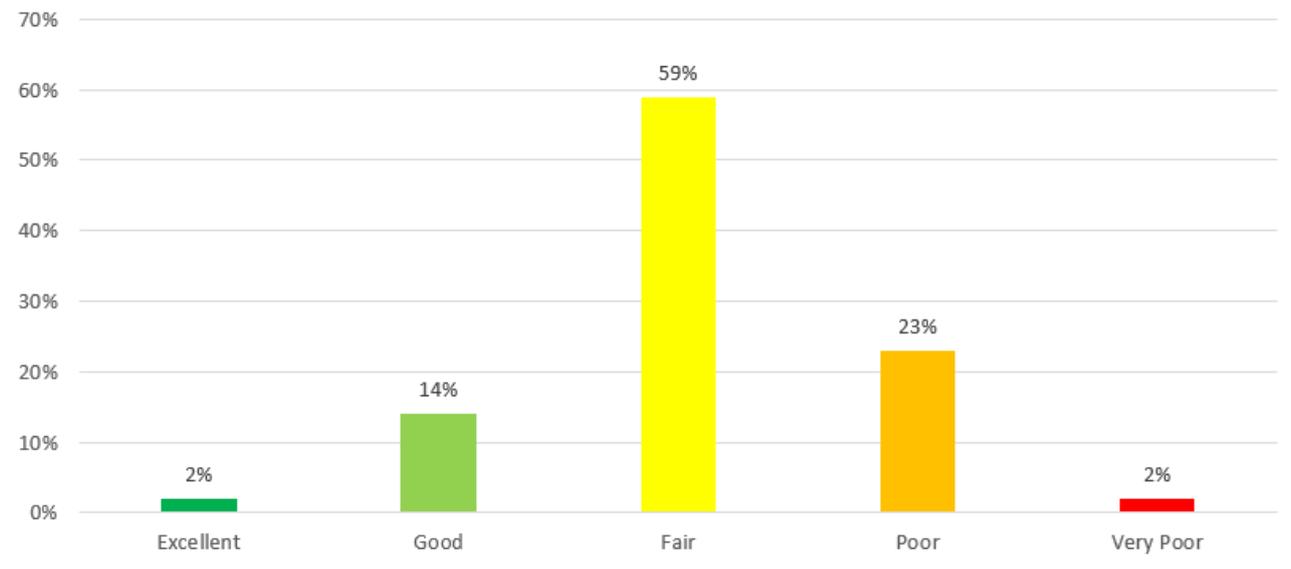
Condition Profile - Water Mains
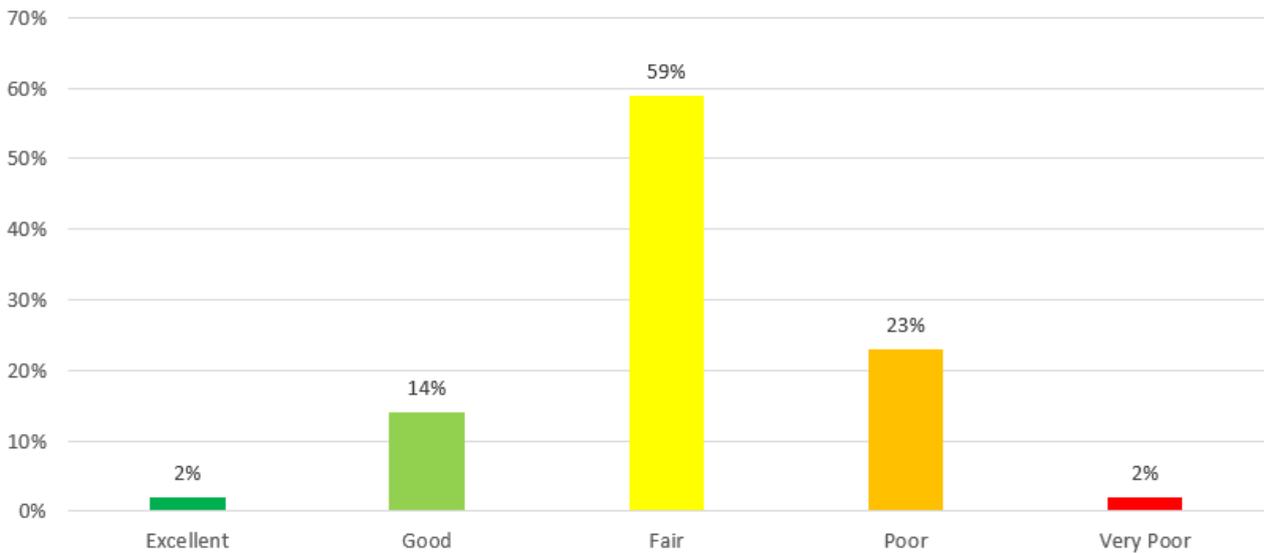
Water Supply – Filtered Mains

Of the 153km of water supply – filtered mains, 2% of the assets are in good condition and only require planned maintenance. 14% of the assets presenting as only needing minor maintenance plus planned maintenance. 59% of the assets require significant maintenance, 23% of the assets require significant maintenance/renewal or rehabilitation and 2% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is considered to be 33 years for water supply mains.

Condition Profile - Water Fittings

Water Fittings - Filtered

2% of the assets are in good condition and only require planned maintenance. 14% of the assets require minor maintenance plus planned maintenance. 59% require significant maintenance, 23% of the assets require significant maintenance/renewal or rehabilitation and 2% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is considered to be 33 years for water supply mains.
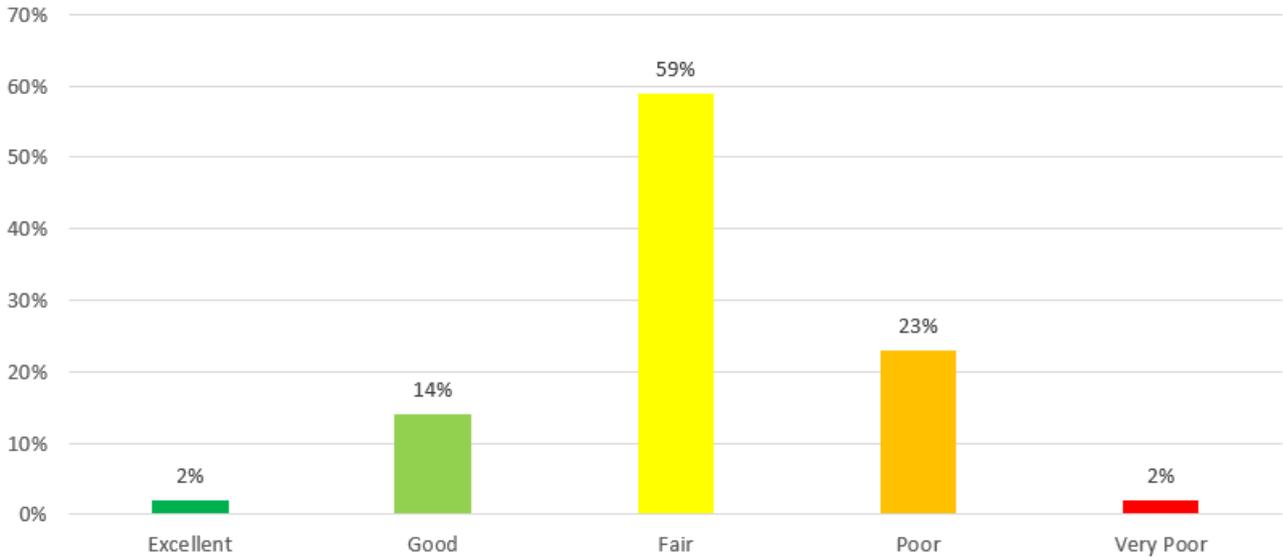
Condition Profile - Water Connections

Water Connections – Filtered

Of the 4,724 water connections, 2% of the assets are in good condition and only require planned maintenance. 14% of the assets require minor maintenance plus planned maintenance. 59% require significant maintenance, 23% of the assets require significant maintenance/renewal or rehabilitation and 2% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is considered to be 33 years for water supply mains.

Water Connections – Raw water

Council does not have any raw water assets.

Figure 2 -Water supply network asset condition profile

5.2.1.2 Water supply network pump stations, and storage component condition

Water component assets have been graphed showing the condition based on age and lifespan. These may be graphed showing the condition supplied by current replacement cost of each component however this has not been documented due to lack of financial data. The following table shows a breakdown of water supply components by group.

Condition Profile - Water Pump Stations
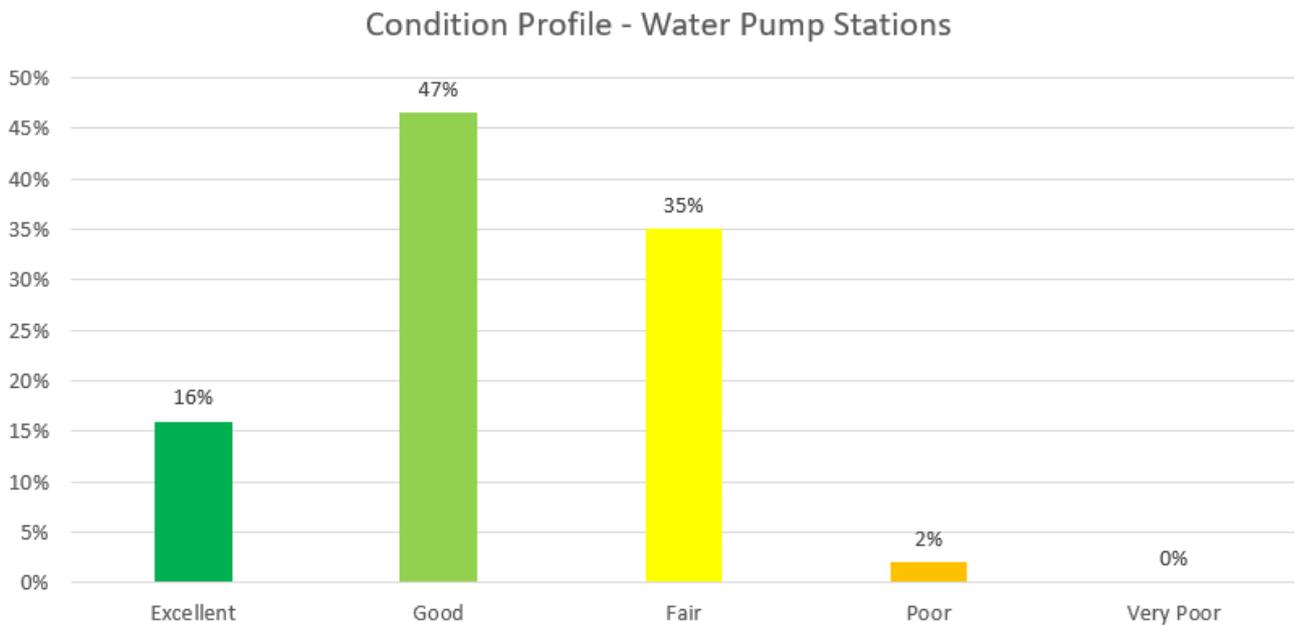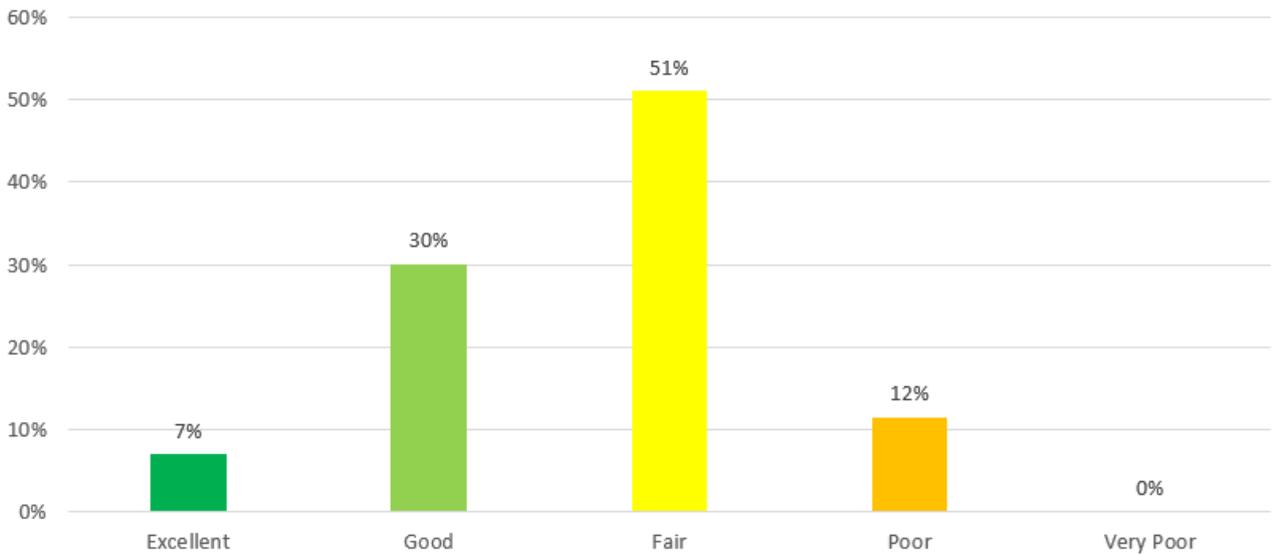

Water Pump Stations

16% of the assets are in good condition and only require planned maintenance. 47% of the assets require minor maintenance plus planned maintenance. 35% of the require significant maintenance, 2% of the assets require significant maintenance/renewal or rehabilitation.

The overall network average reaming useful life is considered to be 48 years for water supply mains.

Condition Profile - Water Treatment Plants

Water Storage

7% of the assets are in good condition and only require planned maintenance. 30% of the assets require minor maintenance plus planned maintenance. 51% of the assets require significant maintenance, 12% of the assets require significant maintenance/renewal or rehabilitation.

The overall network average reaming useful life is considered to be 40 years for water supply mains.

Figure 3 -Water supply network pump station, treatment plant and storage condition profile

5.2.1.3 Wastewater network condition

The wastewater network has been built since 1930s. Narrabris sewer mains date back to 1939. Council is seeing major risks here. These assets are beyond the assigned of 70 years lifespan, given the material types utilised during the day when constructed (such as Asbestos Concrete) these assets should be considered candidates targeted for an immediate renewal program.

A large part of the Boggabri and Wee Waa gravity mains system dates to 1970s, these mains which are reaching approximately 50 years of age. Normally these assets have long useful lives assigned of 70 years, however, give the material types utilised during the day when constructed such as AC and VC these assets should be considered candidates for as part of a targeted renewal program over the forward 10-20 years. The following table shows a breakdown of the wastewater network asset condition profiles.

Condition Profile - Sewer Rising Mains

Condition	Percentage
Excellent	4%
Good	14%
Fair	50%
Poor	28%
Very Poor	4%
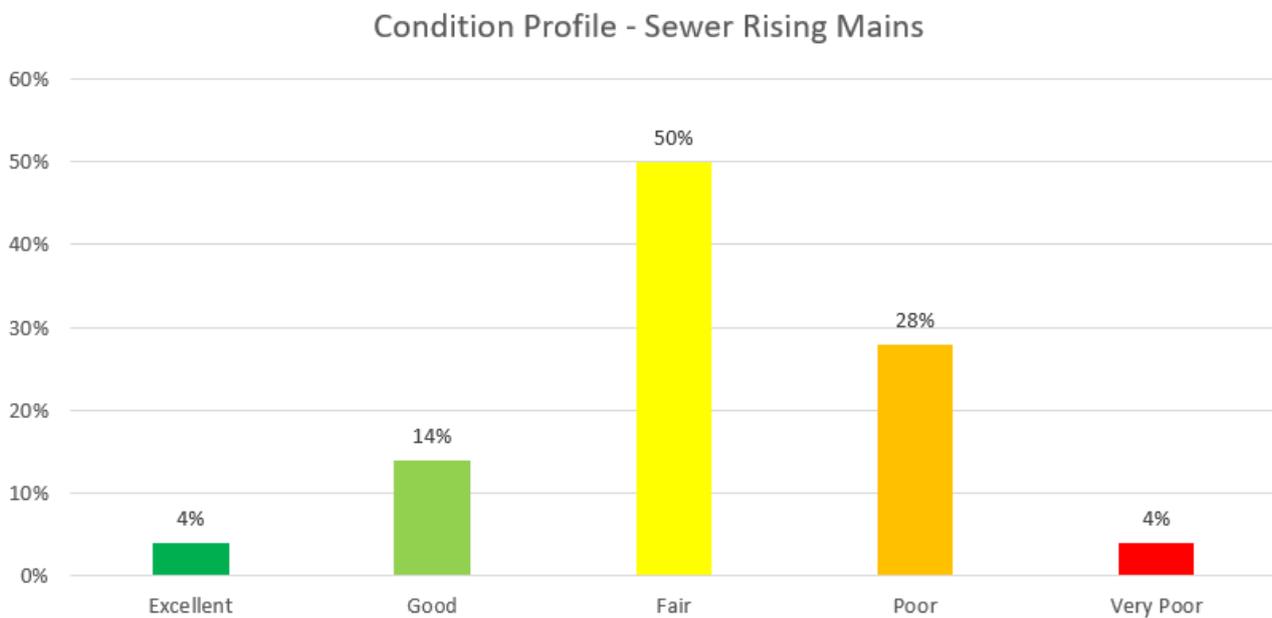
Sewer Rising Mains

Of the 14.5km of sewer rising mains, 4% of the assets are in good condition and only require planned maintenance. 14% of the assets require minor maintenance plus planned maintenance. 50% of the require significant maintenance, 28% of the assets require significant maintenance/renewal or rehabilitation and 4% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is approximately 32 years for sewer rising mains.

Condition Profile - Sewer Gravity Mains
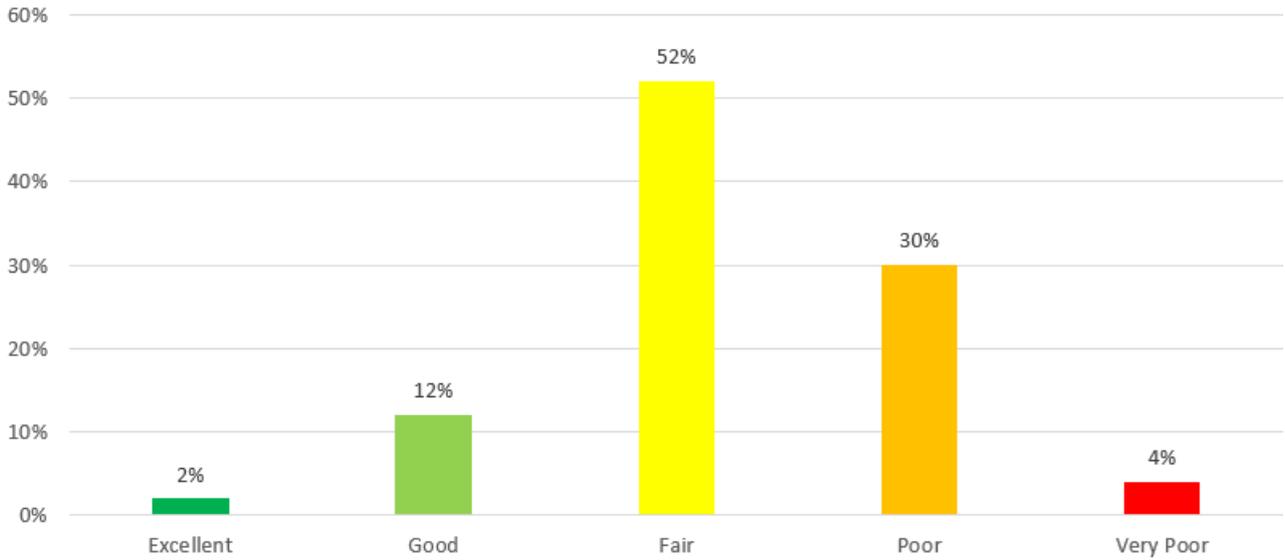
Sewer Gravity Mains

2% of the assets are in good condition and only require planned maintenance. 12% of the assets require minor maintenance plus planned maintenance. 52% of the assets require significant maintenance, 30% of the assets require significant maintenance/renewal or rehabilitation and 4% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is 31 years for sewer gravity mains.

Condition Profile - Sewer Manholes

Sewer Manholes

2% of the assets are in good condition and only require planned maintenance. 12% of the assets require minor maintenance plus planned maintenance. 52% require significant maintenance, 30% of the assets require significant maintenance/renewal or rehabilitation and 4% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is 31 years for sewer gravity mains.

Condition Profile - Sewer Connections

Sewer Connections

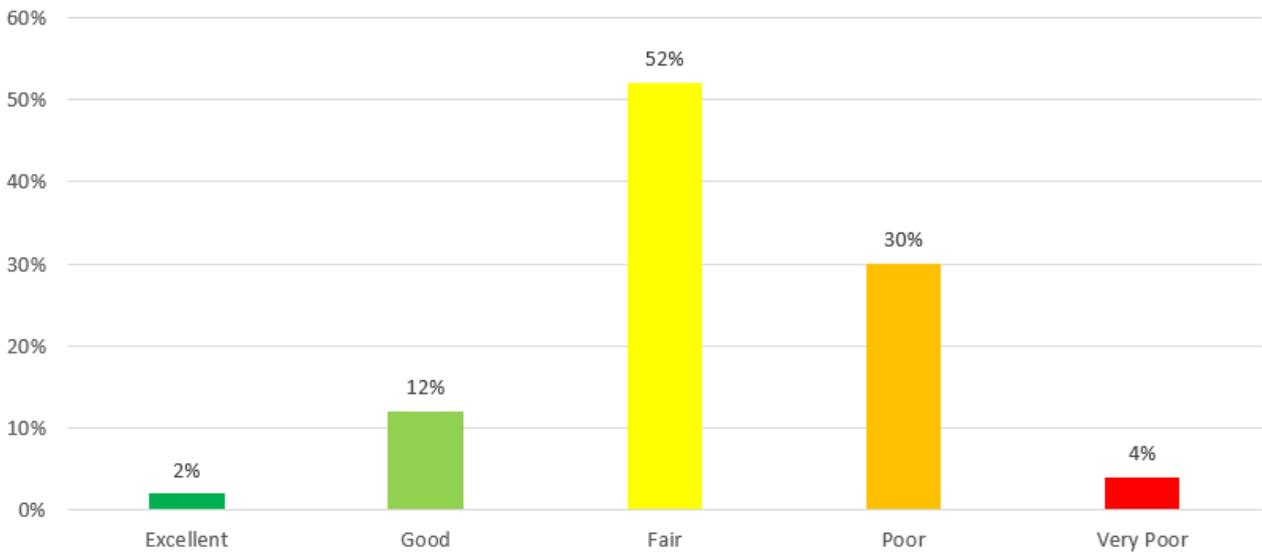Of the 4,068 of sewer manholes, 2% of the assets are in good condition and only require planned maintenance. 12% of the assets require minor maintenance plus planned maintenance. 52% of the assets require significant maintenance, 30% of the assets require significant maintenance/renewal or rehabilitation and 4% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is 31 years for sewer gravity mains.

Figure 4 –Wastewater Network Asset Condition Profile

5.2.1.4 Wastewater pump station and sewerage treatment plan component condition

Wastewater pump station and sewerage treatment plant component assets have been graphed showing the condition supplied by a mix of age and condition based on this and current replacement cost of each component. Due to the variance in component costs this enables a visual representation of the overall condition of the components by value. The following table shows a breakdown of water supply components by group.

Condition Profile - Sewer Pump Stations

Condition	Percentage
Excellent	2%
Good	12%
Fair	52%
Poor	30%
Very Poor	4%

Sewer Pump Station Components
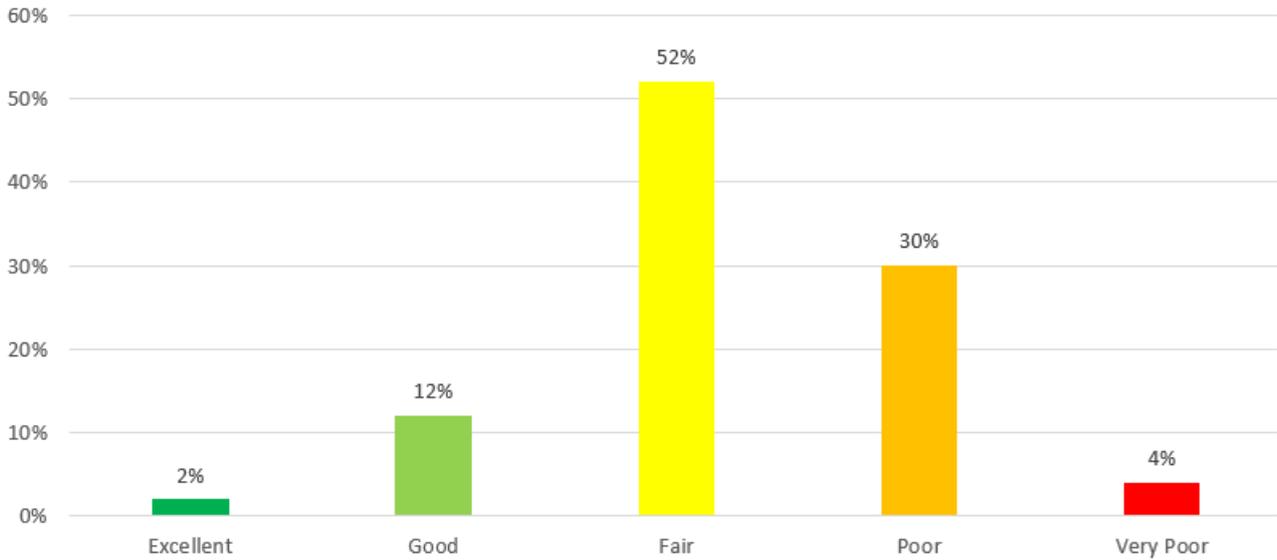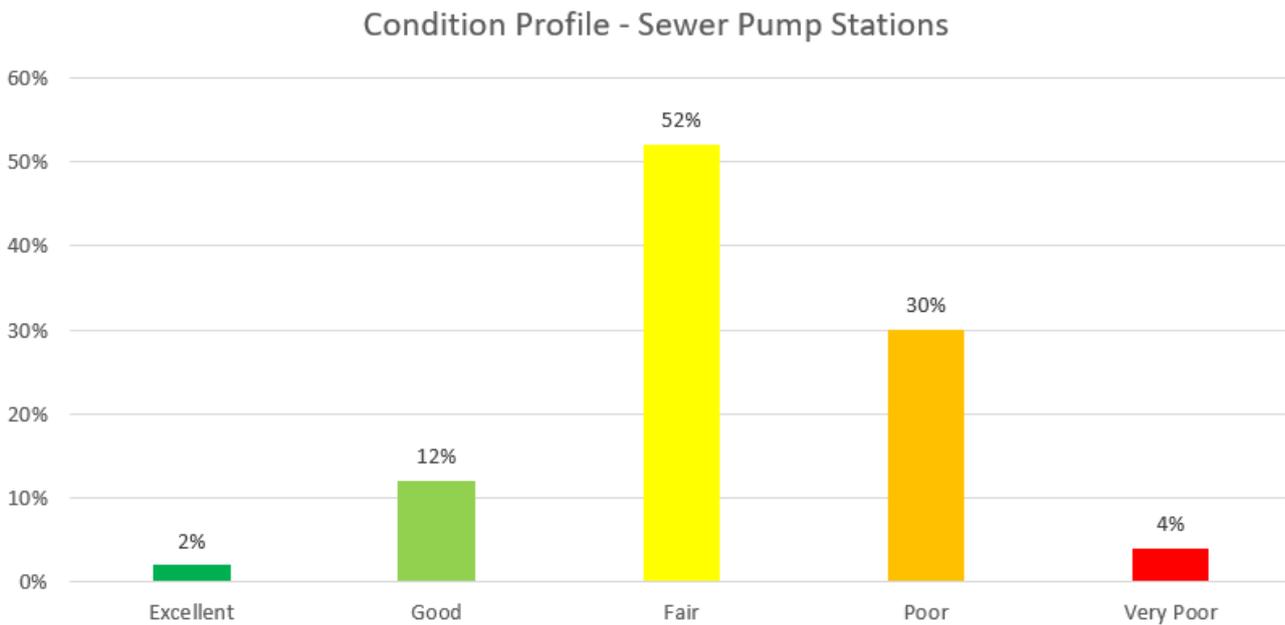
2% of the assets are in good condition and only require planned maintenance. 12% of the assets require minor maintenance plus planned maintenance. 52% of the assets require significant maintenance, 30% of the assets require significant maintenance/renewal or rehabilitation and 4% are considered unsound and /or beyond rehabilitation.

The overall network average remaining useful life is 31 years for sewer gravity mains.

Given the range in pump station component asset useful lives which range from 10 – 80 years condition assessment data is best utilised for the longer life assets.

Shorter life assets such as pumps are best assessed using age or current performance.

Condition Profile - Sewer Treatment Plants
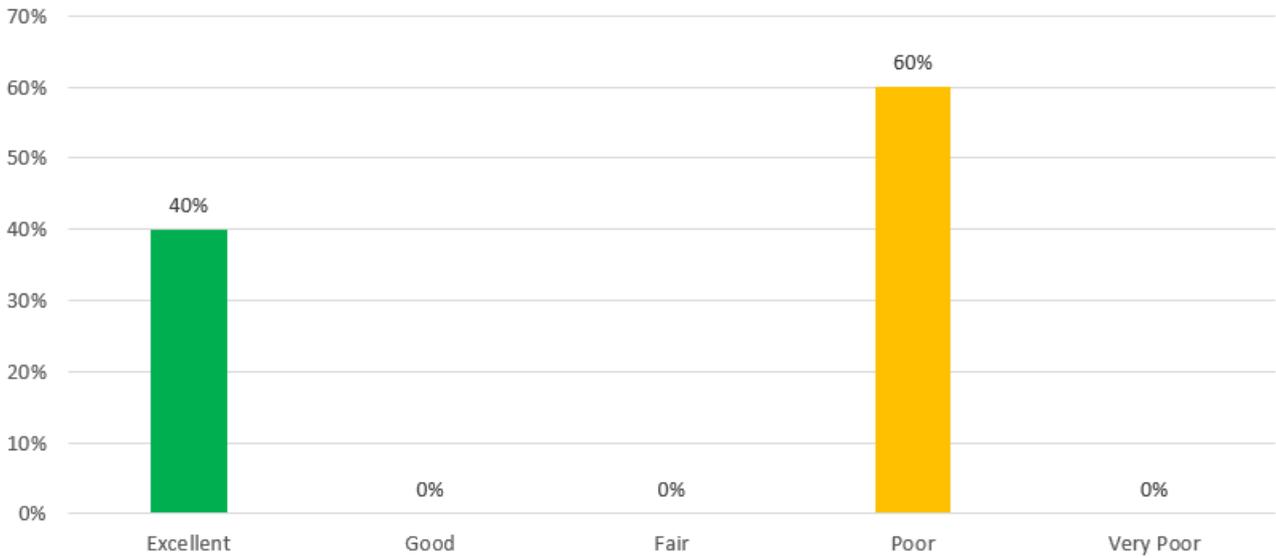
Sewer Treatment Plant Components

Of the 3 treatment plants 40% of the assets are in good condition and only require planned maintenance. 60% of the assets require significant maintenance/renewal or rehabilitation.

The overall network average remaining useful life is 31 years for sewer gravity mains.

Figure 5 –Wastewater Pump Station and Treatment Plant Component Condition Profile

5.3 Routine Operations and Maintenance Plan

Effective maintenance strategies are essential to ensure that an asset performs at the desired service level on a day-to-day basis.

Operations	Includes regular activities to provide and/or services such as public health, safety, and amenity.
Reactive Maintenance	Maintenance is the regular on-going work that is necessary to keep assets operating, including instances where components of the asset fail and need immediate repair to make the asset safe and operational again.

Table 11 – Maintenance Strategy Summary

5.3.1 Maintenance Strategy

The following general maintenance and operations strategies are applied to Council's water supply and wastewater assets:

Operations	Use and manage the assets in a manner that minimises the long term overall total cost. Undertake scheduled inspections as justified by the consequences of failure on levels of service, costs, public health, or safety.
Reactive Maintenance	A suitable level of preparedness for a prompt and effective response to service requests or asset failures is maintained.
Planned or Preventative Maintenance	Undertake planned asset maintenance activities to minimise the risk of critical asset failure and to maintain assets in a manner that minimises ongoing lifecycle costs.

Table 12 – Maintenance Definitions

5.3.2 Maintenance Standards

All maintenance work undertaken is in accordance with Council's standard design guides, standard drawings, and specifications for relevant storm water assets or, if not, covered by these technical guides, in accordance with standard industry practices. New assets either built or acquire will be accompanied by manufacturer recommendations on maintenance to achieve full utilisation. The asset register becomes a point of truth holding this attribute information.

5.3.3 Inspections

For Council to carry out effective planning and competent management of its water supply and wastewater assets, both in a strategic and operational sense, it is essential that maintenance and performance related information is collected through disciplined and regular inspections of the whole of the network.

The inspection frequency regime uses a risk approach that considers the water supply and wastewater network hierarchy. The higher up the water supply and wastewater network hierarchy, the higher the risk exposure and the more frequent the inspections and the quicker the response time.

Council's inspection activities can be grouped into the following categories based on definition and purpose:

Inspection Type	Description
Reactive / Safety Inspections	Reactive inspections are initiated generally by requests for maintenance received from asset users. Safety issues may be detected either as a result of programmed defect inspection or by customer request. Council's objective in relation to maintenance requests is to inspect and prioritise the work requests within specific timeframes.
Planned Inspections (Programmed Defect Inspections)	Planned or maintenance inspections involve a visual investigation to assess the condition of sub-elements or asset components. These inspections provide a basis for urgent, preventative, cyclic maintenance needs and, capital works planning.
Condition Inspections	A condition audit is a systematic inspection and identification and recording of the physical and functional adequacy of assets. The purpose of these inspections is to provide an input for life-cycle cost analysis, and asset planning purposes. This level of inspection does not identify detailed maintenance requirements but provides a basis for managing the asset portfolio from a strategic perspective.

Table 13 - Asset Inspection Type Summary

5.3.4 Water supply and wastewater network and associated asset inspection frequency

A visual survey will be carried out by an appointed Council staff officer to identify asset defects/risks.

The water supply and wastewater network defects are to be recorded via the appropriate medium. Information collected will be uploaded, either automatically or manually, by Council's staff into the Maintenance Management Software. The following table outlines the current network and associated asset inspection frequency by functional hierarchy level.

Water and Wastewater Asset Risk Category	Inspection Timeframe
Local mains, manholes and fittings (Low Risk)	Every 3 years
Branch mains and associated fittings (Medium Risk)	Every 2 years
Trunk mains and associated fittings/ manholes (High Risk)	Annually or 6 monthly
Pump stations and treatment plant components	Every 6 months

Table 14 - Asset Inspection Type Summary

Once a defect has been identified, the defect and location are assessed to determine its risk and potential for causing potential local inundation, flooding, or property damage.

5.3.5   Water supply and wastewater network maintenance practices

The current level of water supply and wastewater network asset maintenance is applicable going forward. This program includes debris/ silt removal, inspection, and other associated water supply and wastewater network maintenance activities.

A review of the water supply and wastewater network maintenance programs is suggested which includes a review of current and future levels of service as well as whole of life cost strategies for water supply and wastewater network maintenance. This should include analysis of preservation treatments such as pipe and manhole relining along with maintenance practices to ensure whole life costs are minimised over time.

5.4   Renewal/Replacement Plan

Renewal expenditure is major work that 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 an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified using a combination of an analysis of the performance of the asset (condition, user complaints, and faults) and the strategy for renewal, for example, is it planned or reactive renewal. The data gathered as part of a condition assessment will provide long term financial budgeting inputs as part of an improved approach to maintenance and renewals planning. Council will plan capital renewal and replacement projects to meet the 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 option that could address the service deficiency.
- And evaluate the options against evaluation criteria adopted by the organisation; and
- 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 the current and required skills base and implement workforce training and development to meet the 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 the best value for resources used;
- Renewal ranking criteria; and

- Asset renewal and replacement are typically undertaken to either:
  - Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate; or
  - To ensure the infrastructure is of sufficient quality to meet the service requirements.

As a general principle, the number and cost of repairs will determine the optimum timing to invest in the renewal of assets. Every time an asset is repaired it provides information about its condition deterioration rate and a prediction of the optimum time to renew. As the rate of repairs increases, a prediction can be made about the optimum time to renew an asset to keep the cost of ownership at the optimum level.

5.4.1   Renewal Standards

Council's construction standards are based on various standards necessary to accommodate the demands and technical requirements placed on our water and wastewater networks.

These standards take into consideration the extensive work previously undertaken by the various professional and industry bodies such as:

- Infrastructure Design Manual
- Australian Standards

All renewal works shall comply with Council's engineering standards and specifications for design and construction which apply at the time.

5.4.1.1   Water Supply Network Renewal Strategy (Mains, Fittings and Connections)

A 'like for like' renewal approach has been applied for water mains, fittings, and water equipment whereby all assets are to be replaced like for like when renewed at their forecast intervention timeframe. All replacement rates have been sourced from the supplied asset register data. Each individual asset i.e., water main, fitting or piece of equipment has been provided a current replacement cost which has been applied when the asset is due for renewal. The renewal timeframe is based on the forecast date of remaining useful life based on available condition information.

Given the above assumptions the following water network renewal strategy is applied. It is recommended that:

- Narrabri Council investigate and implement an annual water supply main renewal program to address mains that may be displaying defects, are of sufficient age or of a material such as AC that is not desirable to maintain in the network long term. A renewal program could enable Narrabri Council to proactively address pipes that may be showing signs of ageing and enable continuity of service and mitigation of risk by proactively replacing pipes within the network that are not candidates for upgrade due to capacity issues.
- Water supply mains and fitting renewal be identified and undertaken as part of network upgrade and new construction of water supply infrastructure to meet demand.
- Where higher order mains such as larger diameter or trunk mains and fittings servicing those mains exist, these should be prioritised and brought forward in the program (where appropriate) to smooth the forward funding projections and program deliverability over the forward 20 years.
- Water supply mains which run under roads should also be prioritised to minimise the potential for main breaks and their potential to affect adjacent assets such as road pavement/

surface and kerb and channel. Conversely the renewal of lower importance water supply mains and fittings and connections can be deferred if required.

- It is recommended that the renewal program be reviewed annually based on actual and/ or updated asset condition data to inform the main renewal and or upgrade programs.
- It would be expected that some water supply mains, fittings, and connections will need to be reconstructed and upgraded during the forward 20-year forecast horizon based on design standards at construction. The forward renewal forecast should be continually adjusted each year based on new asset condition data and network modelling/ design standards to inform forward funding projections.

Asset types	When do we intervene? (Intervention Criteria)	How do we prioritise works?	What treatment options do we apply?	What is our renewal timing from the intervention point?
Water Supply Mains and Fittings	All water mains and fittings are planned for renewal at the end of their useful life based on remaining useful life from original construction date. Where more up to date condition data is available a revised remaining useful life is calculated and applied.	Prioritise potable higher order/ trunk mains and associated fittings across the water supply network and/or mains that service a higher number of residences. Consider whole of life costs of that may be incurring increase in maintenance costs	Full replacement Reline where appropriate	Water main renewal/ relining: Within +/- 0-4 years of end useful life Water fittings: Within +/- 0-4 years of end useful life Program has been smoothed to allow for delivery and funding of the program over the forward 10 years.
Water Supply Network Equipment	All water equipment is planned for renewal at the end of their useful life based on remaining useful life from original construction date. Where more up to date condition data is available a revised remaining useful life is calculated and applied.	Prioritise critical equipment servicing the potable water supply network Consider whole of life costs of that may be incurring increase in maintenance costs	Full replacement with modern equivalent	Water equipment: Within +/- 0-4 years of end useful life. Program is forecast based on each piece of equipment.

Table 15 – Water Supply Network Renewal Strategy

5.4.1.2 Water Supply Pump Station, Treatment Plant and Storage Component Renewal Strategy

The short life of some water supply pump station, treatment plant and storage components such as pumps, mechanical and electrical elements and switchboards may lead to the need for an annual funding allocation requirement to ensure available funding for the progressive renewal of pump station components. Using annual asset consumption as a proxy for renewal demand specifically for pump stations is appropriate as the short life asset components will require renewal within their useful life. Asset condition provides more value in determining renewal demand for longer life assets which may degrade more rapidly or steadily depending on environmental and material factors.

It is recommended that an annual pump station renewal/ component replacement program be implemented in the capital works program. In addition, it is suggested that Narrabri Shire Council an appropriate dollar value to address annual pump station component replacement needs over the forward 10-20 years.

5.4.1.3 Wastewater Network Renewal Strategy (Rising/ Gravity Mains, Manholes and Connections)

A like for like renewal approach may be taken for sewer mains, sewer manholes and connections whereby all assets are to be replaced like for like when renewed at their forecast intervention timeframe. All replacement rates will need to be either: a. sourced from the asset register data or b. evaluation data, or c. Engineer estimates. Each individual asset i.e., sewer main, manhole and equipment will need a current replacement cost which will be applied when the asset is due for renewal.

Given the above assumptions the following wastewater network renewal strategy is applied. It is recommended that:

- Narrabri Shire Council investigate and implement an annual sewer main replacement and relining program to address mains that may be displaying defects. A replacement and relining program could enable Narrabri Shire Council to proactively address pipes that may be showing signs of displacement or cracking and enable continuity of service and mitigation of risk by proactively relining pipes within the network that are not candidates for upgrade due to capacity issues.
- Sewer pipe and pits renewal be identified and undertaken as part of network upgrade and new construction of sewer infrastructure to meet capacity/ runoff demand.
- Where higher order mains such as larger diameter or trunk sewer mains and pits/ junctions service those mains exist, these should be prioritised and brought forward in the program (where appropriate) to smooth the forward funding projections and program deliverability over the forward 20 years.
- Sewer mains which run under roads and associated pits should also be prioritised to minimise sagging and the potential for sewer related issues to affect adjacent assets such as road pavement/ surface and kerb and channel. Conversely the renewal of lower importance sewer mains and pits can be deferred if required.
- It is recommended that the actual sewer renewal program be reviewed annually based on actual and/ or updated asset condition data to inform the pipe reline and or upgrade programs.
- It would be expected that some sewer mains and pits will need to be reconstructed and upgraded immediately and then staged over the forward 10-20-year forecast horizon based on design standards and flood immunity levels of service at construction. The forward

renewal forecast should be continually adjusted each year based on new asset condition data and network modelling/ design standards to inform forward funding projections.

	When do we intervene? (Intervention Criteria)	How do we prioritise works?	What treatment options do we apply?	What is our renewal timing from the intervention point?
Sewer Mains and Manholes	All sewer mains and manholes are planned for renewal at the end of their useful life based on remaining useful life from original construction date. Where more up to date condition data is available a revised remaining useful life is calculated and applied.	Prioritise higher order/ trunk mains and associated fittings across the sewer network and/or the number of residences serviced Rising mains will be prioritised before gravity sewer mains Consider whole of life costs of that may be incurring increase in maintenance costs	Full replacement Reline where appropriate	Sewer main renewal/ relining: Within +/- 0-4 years of end useful life. Manholes replaced, patched, or renewed as required. Program has been smoothed to allow for delivery and funding of the program over the forward 10 years.
Sewer Equipment and Civil Assets	All sewer equipment is planned for renewal at the end of their useful life based on remaining useful life from original construction date. Where more up to date condition data is available a revised remaining useful life is calculated and applied.	Prioritise critical equipment servicing the sewer supply network Consider whole of life costs of that may be incurring increase in maintenance costs	Full replacement with modern equivalent	Sewer civil Equipment: Within +/- 0-4 years of end useful life. Short life sewer equipment such as telemetry replaced with 1-2 year of end of useful life Program has been smoothed to allow for delivery and funding of the program over the forward 10 years.

Table 16 – Wastewater Network Renewal Strategy

5.4.1.4 Wastewater Pump Station Component Renewal Strategy

The short life of some wastewater pump station and treatment plant components such as pumps, mechanical and electrical elements and switchboards leads to the need for an annual funding allocation requirement to ensure available funding for the progressive renewal of pump station components. Using annual asset consumption as a proxy for renewal demand specifically for pump stations is appropriate as the short life asset components will require renewal within their useful life. Asset condition provides more value in determining renewal demand for longer life assets which may degrade more rapidly or steadily depending on environmental and material factors.

It is recommended that an annual wastewater pump station and treatment plant component replacement program be implemented in the capital works program. In addition, it is suggested that Narrabri Shire Council allocate an appropriate $value per annum to address annual wastewater pump station and treatment plant component replacement needs over the forward 10-20 years.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition, or relocation.

Water supply and wastewater related assets are rarely, if ever, disposed of in isolation. Rather water supply and wastewater network asset are disposed, replaced, and upgraded based on catchment redesign and upgrade to address increased capacity requirements.

Council currently has no immediate or current strategic direction to retire or dispose of any isolated elements of the local water supply and wastewater network however does respond to requests for acquisition from other parties as required. In conjunction with detailed hydraulic modelling and service planning, there may be opportunities to review the status of parts of Council's extensive water supply and wastewater network to determine if alternative options could be managed to a lower level of service.

6.   Risk Management Plan

The purpose of this section is to describe the basis of Council's strategic risk and investment policies and the way it will manage risk associated with Council's water supply and wastewater assets.

6.1   Risk Management Process

Council's risk management framework and processes are in accordance with AS/NZS ISO 31000:2009 – Risk Management – Principles and Guidelines and HB 436:2013 – Risk Management Guidelines.

The Framework is designed to provide the architecture for a common platform for all risk management activities undertaken by Council and is used to identify specific risks associated with Council's delivery of services and management of assets.

The objective of the risk management process with regards to Council's 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; and
- 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.

6.1.1   Risk Assessment

Network or system risks assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified by Council's asset risk assessment process are summarised in Table 9 below.

Risk Event	Cause	Risk Rating (VH, H)	Risk Treatment Mitigation Plan	Residual Risk
Water Supply and Wastewater Mains, fittings, and manholes **Pipe service failure due to blockage causing localised flooding.**	Possible entry of foreign object into the underground network, siltation build-up or root intrusion Lack of maintenance and inspection program.	High	Condition assessment program or by through maintenance inspections Monitoring of SCADA and telemetry Once identified, this can be investigated, and extent of funding can be determined. Immediate response to damage created by major storm events.	Medium

			Regular inspections and ongoing capital works / maintenance program.	
Water Supply and Wastewater Network Assets **Network under capacity to handle demand leading to minor and possibly lack or reduce supply of filtered water or reduced capacity of wastewater network.**	Poor or inadequate planning of development Infill development and increasing densification in towns	High	Network modelling of network against various rainfall event scenarios to ascertain areas of insufficient capacity Water supply and wastewater upgrade programs to meet network, capacity requirements A risk-based approach taken for this as documented in condition assessment plan. Regular maintenance grading program. Regular network asset inspections. Understanding and appreciating change in climate patterns and variability	Medium
Pump Station or Treatment Plant partial of full failure **Wastewater is not treated or conveyed to an appropriate level causing minor to major environmental damage and pollution.**	Lack of asset maintenance Lack of timely asset renewal	High	Inspection of treatment assets Regular maintenance and inspection of pump stations Monitoring of telemetry and SCADA across network	Medium

*Table 17 – Identified Water Supply and Wastewater Network Asset Risks*

7.   Financial Summary

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

7.1   Financial Statements and Projections

7.1.1   Water Supply Asset Valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below.
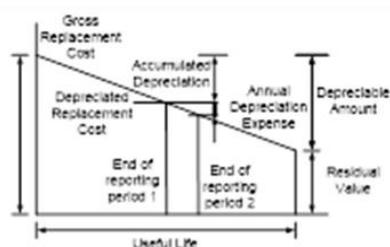
Gross Replacement Cost	$75,183,194
Accumulated Depreciation	$39,757,576
Depreciated Replacement Cost	$35,425,618
Annual Average Asset Consumption	$933,000

The value of assets recorded in the asset register as of 30 June 2021. Assets are valued at fair value based on depreciated replacement cost according to Greenfield rates. Quantities represent those assets whose replacement cost meets Council's capitalisation threshold.

7.1.2   Wastewater Asset Valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below.
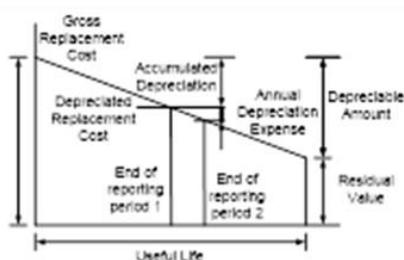
Gross Replacement Cost	$119,758,783
Accumulated Depreciation	$79,912,802
Depreciated Replacement Cost	$39,845,980
Annual Average Asset Consumption	$1,138,000

The value of assets recorded in the asset register as of 30 June 2020. Assets are valued at fair value based on depreciated replacement cost according to Greenfield rates. Quantities represent those assets whose replacement cost meets Council's capitalisation threshold.

7.1.3   Sustainability of Service Delivery

Asset Renewal

The Asset Sustainability Ratio as one of its key measures of an organisation's sustainability. The ratio is defined as follows:

Financial Management (Sustainability Ratio):

- Capital Expenditure on Replacement of Assets (Renewals)
- Depreciation Expenditure

The target range is greater than 90% per annum (on average over the long-term). From Council's most recent water and sewer revaluation, the annual depreciation for the asset covered in this Asset Management Plan is:

- Water supply assets - $ not available p.a.
- Wastewater assets - $ not available p.a

Water and wastewater assets have long useful lives however it has been identified that their current estimated condition is broadly fair, poor, and very poor and the assets have less than half of their remaining useful life. It is recommended that Council need to fund depreciation. Further evidenced may be found in assets failing, higher maintenance costs and reliability being low. Council is seeing a higher renewal demand now and over the forward 20-year period.

It is recommended that Council establish a rolling renewal asset condition and renewal plan for pump stations, reservoirs, treatment plants and equipment and pipes for both water and sewer. It is recommended that replacement and maintenance programs be established, and annual budget allocation be managed to at least the level of risk and then based on annual consumption to ensure these assets are renewed in a timely manner and retained in service.

The current overall capital budget allocation for 2021-22 totals as shown in section 7.1.3 below.

- Water Network **- $1,240,000***
- Wastewater Network **- $740,000**

*excludes water smart metering capital funding program.

7.1.4 Projected Expenditures for Long Term Financial Plan

Based on the valuation data and Council condition data, the following section identifies the projected renewal requirements over the next 10 years. In practice, renewals will be programmed over a number of years so that acts to "smooth" out the expenditure curve. The asset condition data supplied in a 1-5 rating scale has been converted and extrapolated over a 0-10 condition profile to provide smoothed renewal funding forecast across the large water supply and wastewater asset portfolios. This approach uses simple conversion factors to mimic real world asset condition distribution across the various rating levels using the source data.

It is recommended that the annual renewal demand averages over 10 years be used when comparing current budget allocations. This will focus any budget discussions on the long term rather than the short term which may identify lower renewal funding demand as a result of assets condition profiles showing assets in very good, good, and fair condition which have not yet reached renewal intervention.

Water supply network renewal demand forecast

The predominant driver for investment in the water supply network is to renew and improve network reliability in specific areas such as water mains. The forecast below is to be added to the current projected network new and upgrade funding demands as identified by Narrabri Shire Council.

Water supply mains have a long life (70 years), and water fittings (65 years). The forecast renewal demand graph (based on asset condition/derived from remaining asset life and financial data) is showing a need for large amounts of funding in the first year and over the forward 10-year period. This demand has been pent up and based on the; the longer that maintenance and renewal is held off the higher the initial spend will be.

It is recommended that Narrabri Shire Council investigate the water supply mains that are in poor and very poor condition in the towns of:

- Bellata and approximately 5.2km.
- Boggabri and approximately 34km.
- Wee Waa and approximately 26km.
- Narrabri, the quantity of older mains are unknown at this time.

Investigations are required in the towns, particularly where known older sections are installed more than 60 years ago and/or are known to be asbestos Cement or similar.

An annual funding allocation requirement is required to ensure available funding for the progressive renewal of pump station and treatment plant components. Using the annual asset consumption as a proxy for renewal demand specifically for short life asset components is appropriate as they will require renewal within their design life. Asset condition provides more value in determining renewal demand for longer life assets which may degrade more rapidly or steadily depending on environmental and material factors.

Many of the water supply network asset assets on the asset register will be due for renewal during the forward 10 to 40 year horizon.
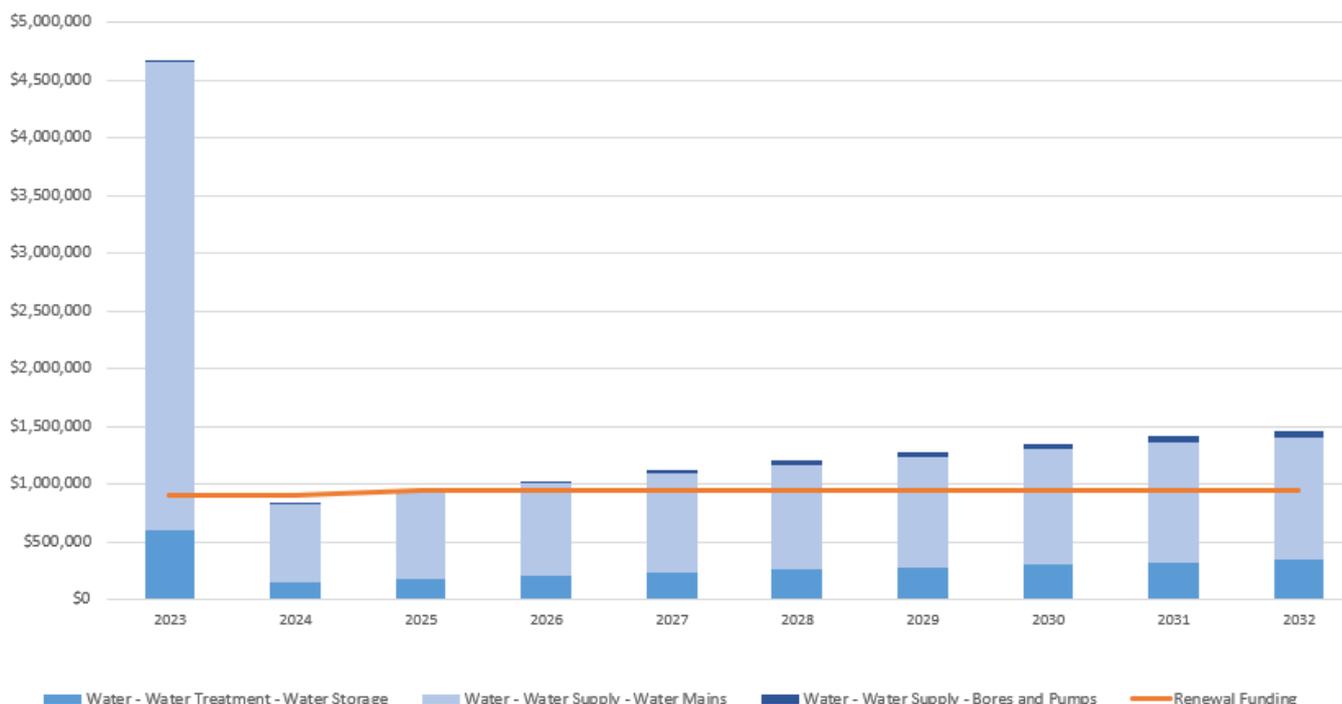

Figure 6 – Projected 10-year renewal demand – Water Supply Network

The table below shows the projected expenditures for the 10-year, Long Term Financial Plan. Expenditure projections are 2023 today's dollar values.

Year	Water Storage	Water Mains	Bores, pump stations & pumps	TOTAL
2023	$600,984	$4,049,006	$9,693	$4,661,705
2024	$145,693	$682,750	$4,406	$834,873
2025	$175,126	$743,469	$12,917	$933,537
2026	$203,786	$802,303	$21,087	$1,029,202
2027	$231,228	$858,074	$28,740	$1,120,069
2028	$257,127	$909,893	$35,798	$1,204,846
2029	$281,252	$957,122	$42,225	$1,282,628
2030	$303,643	$999,330	$48,003	$1,353,006
2031	$323,643	$1,036,258	$53,122	$1,415,054
2032	$341,780	$1,067,792	$57,575	$1,469,179
2033	$357,865	$1,093,934	$61,359	$1,515,191

Table 18 - Projected renewal demand expenditures for Long Term Financial Plan – Water Supply Network

Wastewater network renewal demand forecast

Asset in this class have very long lives, sewer rising mains 70 years, gravity mains 70 years and sewer manholes 70 years, the forecast renewal demand graph (based on asset condition/ derived from remaining asset life) is showing a very high amount for renewal funding in the first year and a relatively high amount for renewal funding demand over the forward 10-year period when compared to the overall network value and annual asset consumption rate.

Many of the wastewater network asset assets on Narrabri' asset register will require renewal during the forward 10/20-year tome horizon even with some smoothing of the renewal demand profile as can be seen in the figures below.

The predominant driver for investment in the wastewater network is to replace the aged network, the demand is not driven by future capacity. This needs to be proactively addressed in order to meet future supply security. Therefore, the forecast below is to be added to the current projected network new and upgrade funding demands as identified by Narrabri Council.

The sewer mains have a long life (70 years). The forecast renewal demand graph (based on asset condition/derived from remaining asset life and financial data) is showing a need for large amounts of funding in the first year and over the forward 10 year period. This demand has been pent up and

based on the age, condition, type of sewer materials and importantly and maybe considered as a higher driver; the longer that maintenance and renewal is held off the higher the initial spend will be.

Much like the water supply pump stations and treatment plant components, the shorter life of sewer pump stations and some treatment plant components such as pumps, mechanical and electrical elements and switchboards will continue to drive demand. This leads to the need for an annual funding allocation requirement to ensure available funding for the progressive renewal of sewer pump station and treatment plant components. Using the annual asset consumption as a proxy for renewal demand specifically for short life asset components is appropriate as they will require renewal within their design life. Asset condition provides more value in determining renewal demand for longer life assets which may degrade more rapidly or steadily depending on environmental and material factors.

It is suggested that Narrabri Shire Council allocate an upfront spend to immediately address the issues and per the forecast below. Alternatively, Council may consider spreading the cost out of the 10 year period and:

- Forecast an average of $289,000 per annum to address annual pump station component replacement
- Forecast an average of $558,000k p.a. to address water treatment plant component renewal needs
- Forecast an average of $2.6 million to address the sewer mains.

These amounts are added to the longer-term renewal forecast for water mains, fittings, and connections below.

Finally, it is suggested that Narrabri Shire Council review the range of components have been rated in poor or very poor condition across its network and where there are older assets undertake condition assessments, particularly in the sewer mains. This should be prioritised for over the next 1-2 years.
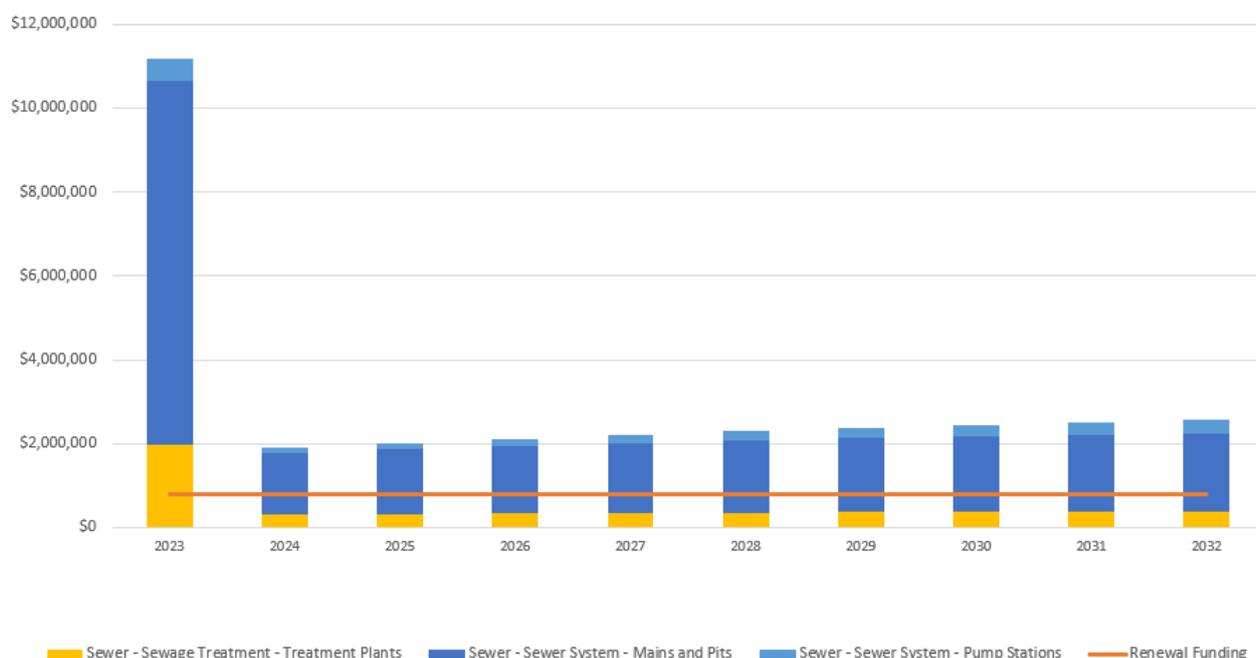
Figure 7 – Projected 10-year renewal demand – wastewater network components

The table below shows the projected expenditures for the 10-year, Long Term Financial Plan. Expenditure projections are in 2020/21 today's dollar values.

Year	Treatment plants	Mains & pits	Pump stations	TOTAL
2023	$1,972,329	$8,668,631	$544,947	$11,185,907
2024	$311,831	$1,467,922	$123,852	$1,903,605
2025	$325,690	$1,537,823	$148,481	$2,011,994
2026	$338,887	$1,604,148	$173,611	$2,116,646
2027	$351,068	$1,664,845	$198,961	$2,214,874
2028	$361,975	$1,718,457	$224,266	$2,304,698
2029	$371,429	$1,764,017	$249,280	$2,384,726
2030	$379,318	$1,800,966	$273,777	$2,454,061
2031	$385,588	$1,829,066	$297,557	$2,512,211
2032	$390,227	$1,848,348	$320,446	$2,559,021
2033	$393,261	$1,859,047	$342,294	$2,594,602

Table 19 - Projected renewal demand expenditures for Long Term Financial Plan – Wastewater Network

Total projected renewal expenditures for the water supply and wastewater portfolio

The graph below shows the summarised projected renewal demand profile over the next 10-years by asset class. This shows the build-up demand expressed in the year 2023. This could be smoothed over the 10 years however at risk. Expenditure projections are based on today's (2021/22) dollar values.
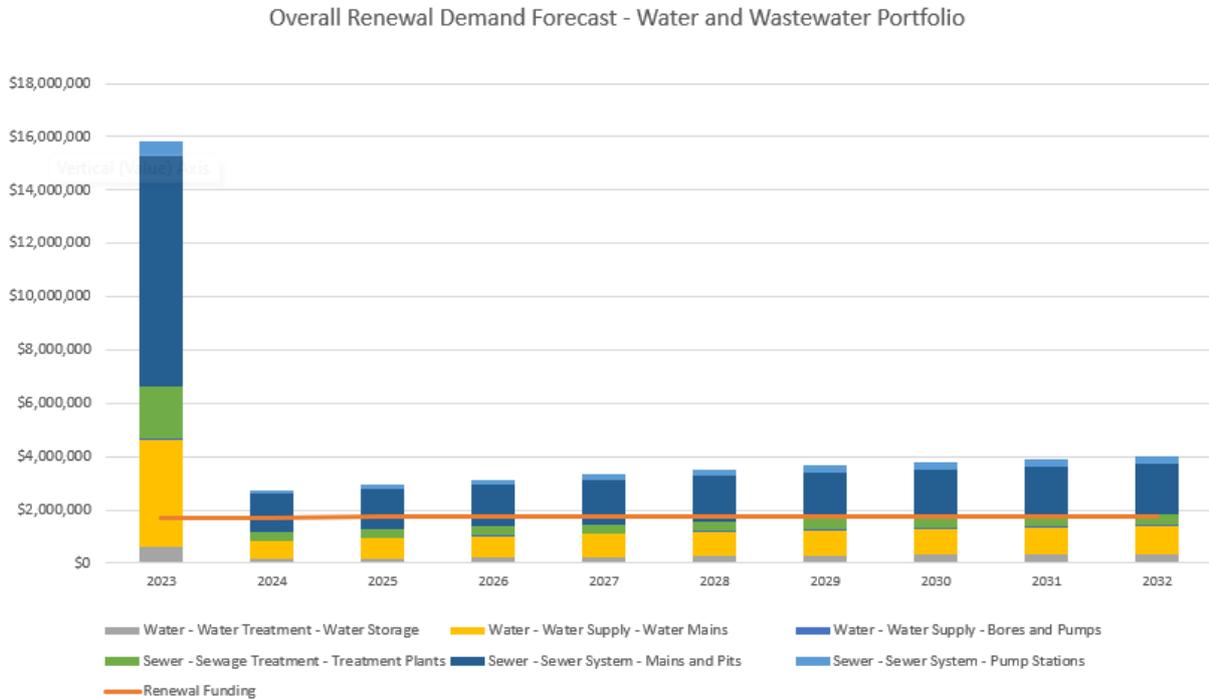

Figure 8 – Projected 10 Year Renewal Profile

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The table below shows the projected expenditures for the 10-year, Long Term Financial Plan. Expenditure projections are in 2020/21 today's dollar values.

Year	Water Total	Wastewater Total	TOTAL
2023	$4,661,705	$11,185,907	$15,849,635
2024	$834,873	$1,903,605	$2,740,502
2025	$933,537	$2,011,994	$2,947,556
2026	$1,029,202	$2,116,646	$3,147,874
2027	$1,120,069	$2,214,874	$3,336,970
2028	$1,204,846	$2,304,698	$3,511,572
2029	$1,282,628	$2,384,726	$3,669,383
2030	$1,353,006	$2,454,061	$3,809,097
2031	$1,415,054	$2,512,211	$3,929,296
2032	$1,469,179	$2,559,021	$4,030,232
2033	$1,515,191	$2,594,602	$4,111,826

Table 20 - Projected renewal demand expenditures for Long Term Financial Plan – Water and Wastewater Networks

8. Plan Improvement and Monitoring

8.1 Status of Asset Management Practices

Council currently uses the following corporate information systems for recording relevant asset data and information:

Module	System
Customer Request Management	TechOne
Financial/Accounting	TechOne
Records Management	TechOne
Mapping (GIS)	Intramaps
Asset Register	TechOne
Strategic Asset Management	TechOne Strategic Asset Management Module (yet to be implemented for building assets)
Mobile Solutions	TechOne mobile platform (yet to be implemented for building assets)
Works Management	TechOne (yet to be implemented for water and sewer assets)

Table 21 – Overview of Corporate Systems

An asset management information system underpins asset management capacity and capabilities and is a key source of information for decision making, coordination of operations, and performance reporting. Council shall investigate options for its future asset management system, it is important that a clear road map is developed for the implementation of the functionality of this system which is either being performed by other non-integrated solutions or manual processes.

8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown below. The asset improvement program should be reviewed annually and updated as part of any future Water and Wastewater AMP development.

Improvement Category	Tasks / Processes	Timeframe	Responsibility	Status
STRATEGY	Develop a long-term strategy for the condition assessment and performance management of the network. Which incorporate upgrade planning and capacity assessment	2023/2024	Water and Sewer Services Asset Services	In Progress

Improvement Category	Tasks / Processes	Timeframe	Responsibility	Status
	Investigate the need for a fit for purpose asset planning/ predictive tool which integrates asset register, condition and works management data and information to support informed strategic asset decision making.	2023/2024	Water and Sewer Services Asset Services	In Progress
LEVELS OF SERVICE	Develop a network inspection, defect, intervention, response time and risk management procedures in accordance with the WSAA conduit inspection code.	2023/2024	Water and Sewer Services Asset Services	Planning Stage
RISK MANAGEMENT	Review of water and sewer asset management maintenance and renewal programs for each asset class	2023/2024	Water and Sewer Services	Planning Stage
DATA	Develop a fit for purpose Asset Information Strategy which outlines the objectives and long-term strategy for asset information management throughout the asset lifecycle.	2022/2023	Asset Services	Planning Stage
	GIS system integration improvements	2023/2025	Asset Services	Planning Stage
	Consolidation of asset registers into Corporate Asset System	2023/2025	Asset Services	In Progress
FINANCIAL MANAGEMENT	Review balance of upgrade and renewal investment for water supply and wastewater networks.	2023/2024	Finance Asset Services	Planning Stage
OPERATIONS	Review asset maintenance specification and technical levels of service.	2023/2024	Water Services Asset Services Governance and Risk	Planning Stage

Table 22 – Asset Management Improvement Plan

Council's Executive Management Team will be responsible for determining the priority of the actions in this improvement plan and to allocate a responsible officer and to identify resource needs. This is

to ensure that the implementation of these improvement actions align with Council's overall asset program.

8.3 Monitoring and Review Procedures

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

The Asset Management Plan 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 Long-Term Financial Plan.

The Asset Management Plan will have a life of four (4) years and will be completely reviewed and updated in order to inform the development of the Community Strategic Plan, the Operational and Development Plan, and the Long Term Financial Plan.

8.4 Performance Measures

Performance measures will be developed to ensure that work practices and the Asset Management Plan are reflective of each other.

The performance of the Asset Management Plan shall be monitored against the following criteria in accordance with the process detailed below.

- Maintenance and renewal programs - to confirm that allocated budget projects were delivered on time, within budget and to the specified level of service (see following item on delivery performance).
- Inspection programs - to confirm that they were undertaken as specified in the asset management plans and any other service level agreements which may be in operation including Council's.
- Scheduled condition surveys – to confirm that they were undertaken as required.
- Maintenance of asset information systems - to ensure that stored data is current and accurate.
- External factors - including legislative requirements, ongoing development of Council policies, plans, and other major system implementations, that may affect the contents of the asset management plan.

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