



ASSET MANAGEMENT PLAN 2023-2032

Information Technology

October 23

Acknowledgement of Country

Tamworth Regional Council would like to acknowledge the Gamilaroi/Kamilaroi people, who are the traditional custodians of this land. We would like to pay respect to Elders past and present and extend that respect to other Aboriginal and Torres Strait Islander peoples living in and visiting our Region.

Job #	Version	Author	Peer Review	Approving Director	Date
7710	1	[REDACTED]	[REDACTED]		Oct-23
7710	2	[REDACTED]		[REDACTED]	Nov-23

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks.

The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 10-year planning period. The AM Plan will link to a Long-Term Financial Plan.

1.2 Asset Description

This plan covers the Information Technology assets that serve Tamworth Regional Council and our community.

The Information Technology network comprises:

- IT hardware
- IT network and infrastructure

The above infrastructure assets have replacement value estimated at \$3.9m.

IT hardware, under an operating lease arrangement e.g. large format scanner and printer devices, are not included in the asset management plan.

1.3 Levels of Service

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

The main service consequences of the Planned Budget are:

- Increased response times
- Triaging of operational and maintenance requirements

1.4 Future Demand

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

- Staff expectations
- Community expectations
- Technology changes

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

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of ten years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for Information Technology assets is estimated as \$30,160,576 or \$3,016,058 on average per year.

1.6 Financial Summary

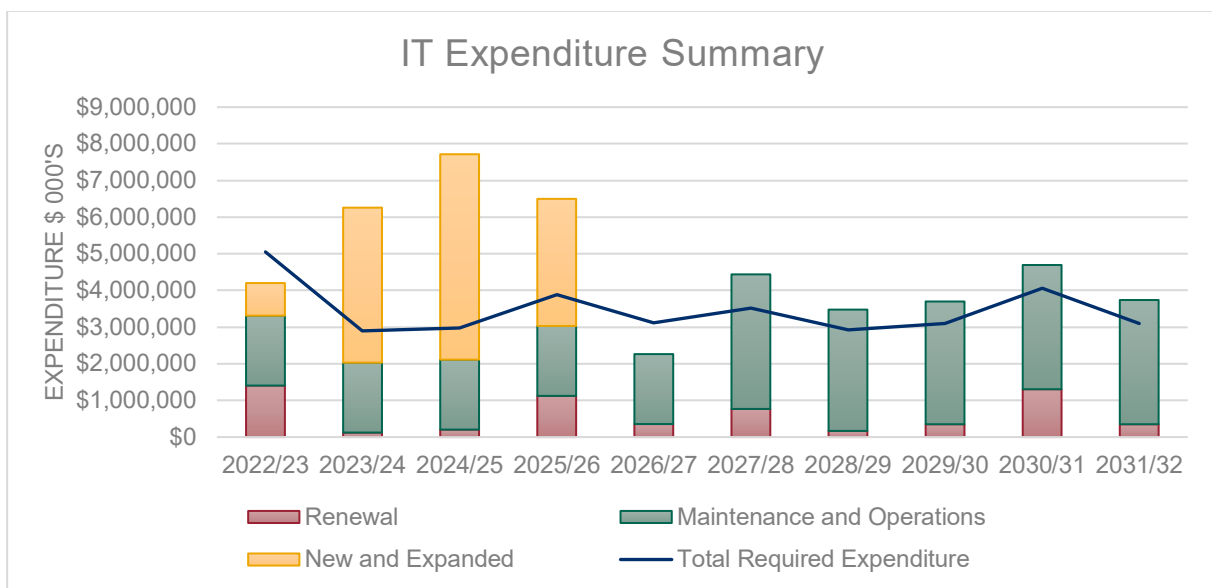
1.6.1 What we will do

Estimated available funding for the 10-year period is \$26,157,501 or \$2,615,750 on average per year as per the Long-Term Financial plan or Planned Budget. This is 86.73% of the cost to sustain the current level of service at the lowest lifecycle cost.

The asset management reality is that only what is funded in the Long-Term Financial Plan can be provided. Informed decision making depends on the AM Plan emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for IT Assets leaves a shortfall of \$400,307 on average per year of the forecast lifecycle costs required to provide services in the AM Plan, compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.6.1 Forecast Lifecycle Costs and Planned Budgets



We plan to provide IT Asset services for the following:

- Operation, maintenance, renewal and acquisition of IT hardware, network and infrastructure assets to meet best possible service levels within available annual budgets.

It should be noted that until the Technology Blueprint is finalised and endorsed, there can be no certainty about funding requirements for major renewals/acquisitions within the 10-year planning period.

1.6.2 What we cannot do

Currently forecast renewals and planned budgets are in alignment, with no shortfall.

At the same time, decisions are currently under discussion around plans for information technology at TRC (i.e. development of the Technology Blueprint).

In these circumstances, it is not possible to accurately identify specific deliverables that cannot be provided under present funding levels.

Once the Technology Blueprint has been finalised and endorsed, this plan can be updated to reflect works and services that cannot be provided.

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Reduced level of service
- Disruption to system access and reputational damage due to cyber-attacks.

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

- Exploring resourcing options.
- Continuous re-assessment of requirements to deliver critical services.
- Maintenance of firewalls, anti-virus software and training.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- The asset information sourced contains Council's "best knowledge" about the assets at the date of this plan
- Where not otherwise specified, budget forecasts are determined for year one and projected without escalation for future years
- Assets requiring renewal are identified from either the known asset information or an alternative method
- The timing of capital renewals based on the asset information held is applied by adding the useful life to the year of acquisition or year of last renewal
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge
- Assets requiring renewal are identified from either the asset register or an alternative method
- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal, unless otherwise specified.

This AM Plan is based on information with levels of confidence varying between 'uncertain' and 'reliable'.

1.8 Monitoring and Improvement Program

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

- Continuing to improve accuracy of the asset register
- Review of Levels of Service to improve information and measurable performance outcomes
- Review of identified sections where relevant information is not yet documented.

2.0 INTRODUCTION

2.1 Background

Asset management is the “...combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner”¹.

Council maintains a network of physical infrastructure within the Local Government Area that is necessary to enable the community to live, work and play in a prosperous, safe and accessible region.

Managing this infrastructure is a complex and expensive task that requires long-term planning and funding. Moreover, provision of additional infrastructure in response to growth poses challenges, with changes in community expectations, standards and population likely to change our infrastructure requirements into the future. Council is also under significant pressure to deliver infrastructure in a sustainable manner. This asset plan covers the management of Council’s IT infrastructure which supports the organisation as well as Council’s Technology Blueprint roadmap.

Our Asset Management Performance

Successful asset management will include the following elements:

- Provision of a defined level of service, reviewed from time to time
- Systems to monitor performance
- A plan for managing the impact of growth
- A lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identification, assessment, and appropriate control of risks
- A long-term financial plan which identifies required affordable expenditure and how it will be financed
- An asset management improvement strategy.

Council strives to achieve these elements, and is continuously improving our asset management practice.

This Plan

This AM Plan sets out the current Information Technology assets owned and managed by Council and communicates the requirements for the sustainable delivery of services through management of said assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The infrastructure assets covered by this AM Plan include IT hardware and network infrastructure.

For a detailed summary of the assets covered in this AM Plan refer to Table 5.1.1 in Section 5.

These assets are provided to support the organisation to capture, share and use information to meet our operational and strategic outcomes.

The Information Technology assets included in this plan have a total replacement value of \$3,944,100.

¹ IPWEA International Infrastructure Management Manual (IIMM) 2015

Asset Management Plans are one of a series of corporate documents produced by Council to facilitate decision making and report on performance. Other significant documents that should be considered in conjunction with this plan include:

- Asset Management Policy
- Tamworth Regional Blueprint100
- Our Community Plan 2022-2032
- Our Delivery Plan 2022-2025
- Our Annual Plan & Budget – 2022-23
- Our Resourcing Plan 2022-2025 (includes asset management strategy)

Along with documents specific to Information Technology:

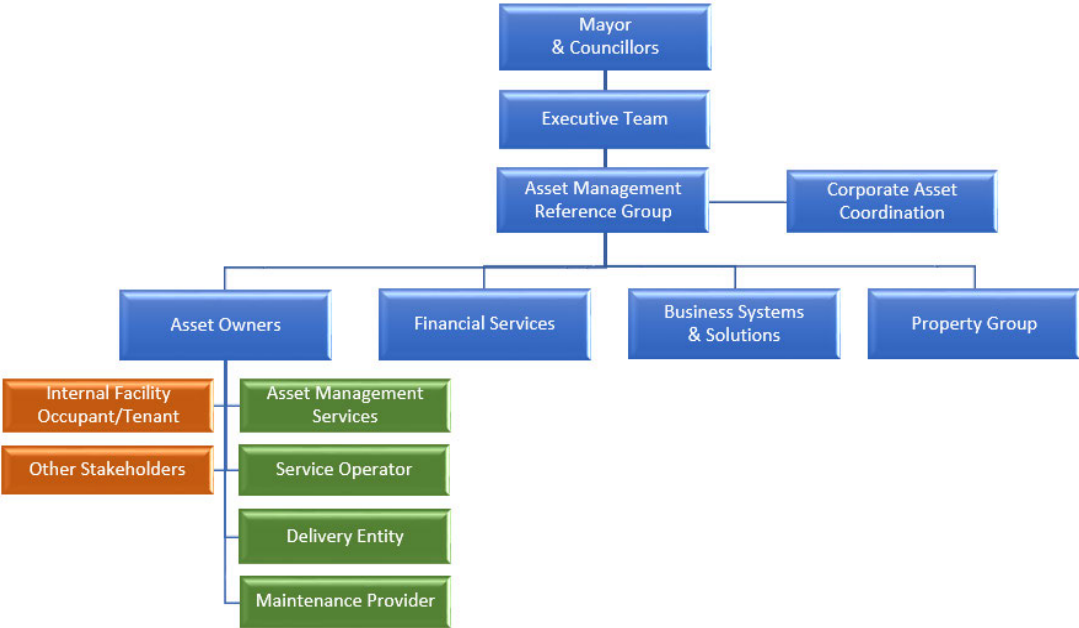
- Information Technology Blueprint

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

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Mayor and Councillors	<ul style="list-style-type: none"> ▪ Represent needs of community ▪ Allocate resources to meet planning objectives in providing services while managing risks ▪ Ensure service sustainable.
General Manager	<ul style="list-style-type: none"> ▪ Overall responsibility for developing infrastructure asset management systems, policies and procedures and financial models ▪ Reporting on the status and effectiveness of asset management ▪ Allocation of staff resources.
Asset Owner	<ul style="list-style-type: none"> ▪ Collecting, maintaining and reporting on asset information ▪ Arranging for asset lifecycle activities to occur ▪ Managing budgets to meet lifecycle costs ▪ Identifying risks and improvement strategies related to the management of their assets.
IT Department	<ul style="list-style-type: none"> ▪ Plan and facilitate asset acquisition, renewal upgrade and disposal ▪ Establish service levels, risk management and asset monitoring ▪ Coordinate planned and reactive maintenance.
Customers and Staff	<ul style="list-style-type: none"> ▪ End users of Council's services ▪ Assist in setting levels of service.
Finance Department	<ul style="list-style-type: none"> ▪ Council's Long-Term Financial Plan, asset valuation and depreciation and financial principles.
Assets Staff	<ul style="list-style-type: none"> ▪ Develop and update asset management documentation.
Technology Partners	<ul style="list-style-type: none"> ▪ Supply and maintain products and/or services associated with assets.

Our organisational structure for service delivery from assets is detailed below:



2.2 Goals and Objectives of Asset Ownership

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

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are:

- Levels of service – specifies the services and levels of service to be provided
- Risk Management
- Future demand – how this will impact on future service delivery and how this is to be met
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service
- Financial summary – what funds are required to provide the defined services
- Asset management practices – how we manage provision of the services
- Monitoring – how the plan will be monitored to ensure objectives are met
- Asset management improvement plan – how we increase asset management maturity.

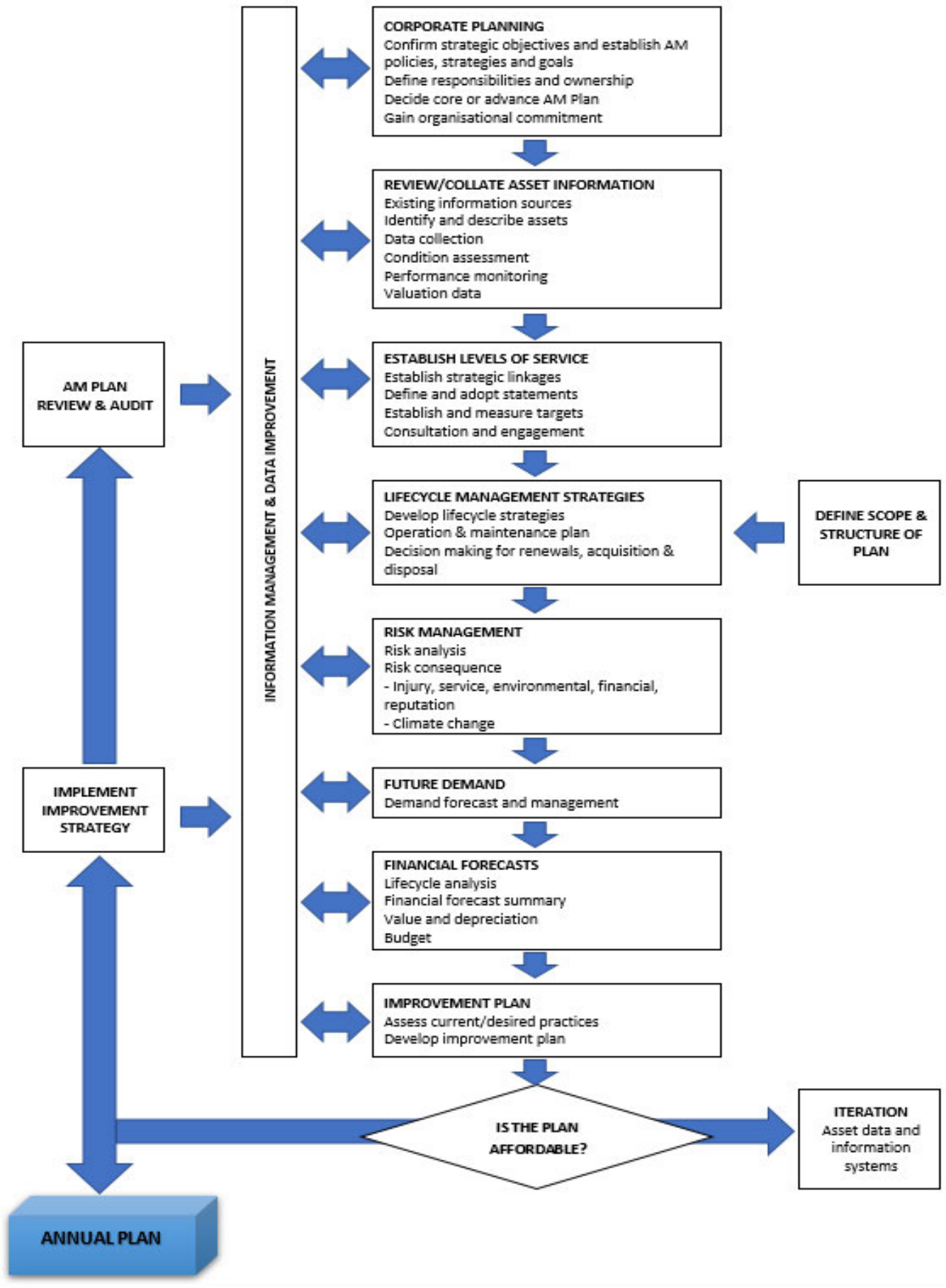
Other references to the benefits, fundamental principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 ²
- ISO 55000 ³

² Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

³ ISO 55000 Overview, principles and terminology

A road map for preparing an AM Plan is shown below:



Road Map for preparing an Asset Management Plan
 Source: IPWEA, 2015, IIMM, Fig 1.5.1, p 1.11

3.0 LEVELS OF SERVICE

3.1 Strategic and Corporate Goals

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



Council has adopted Blueprint100 as its overarching strategic roadmap, which targets achieving a population of 100,000 by 2041 via a number of strategic initiatives across eight priority themes designed to promote a prosperous economy and high living standards in the region.

Community consultation conducted in 2021/2022 was based around the Blueprint100 themes and together Blueprint100 and community feedback informed the development of Our Community Plan 2022-2032, which has nine Focus Areas as follows:



The relevant focus areas and strategies and how these are addressed in this AM Plan are summarised in Table 3.1.

Table 3.1: Strategic Focus Areas and how these are addressed in this Plan

 FOCUS AREA 1 - OUR WATER SECURITY		
Priority	Strategies	How priority is addressed in this Plan
Our urban planning, design and operations use sustainable water and wastewater approaches	<ul style="list-style-type: none"> Increased number of Tamworth Regional Council services and facilities using sustainable approaches to water and wastewater management. More water and waste wise designs. 	<ul style="list-style-type: none"> Providing a secure CCTV and corporate radio link from Dungowan Dam to RWH for the staff to view and monitor Dam activities. Provide a secure connection to existing and future Water Treatment plants. Provide On-Premises cloud solutions to enable remote access.
 FOCUS AREA 2 - A LIVEABLE BUILT ENVIRONMENT		
Priority	Strategies	How priority is addressed in this Plan
The right growth in the right locations	<ul style="list-style-type: none"> Manage growth by updating the strategic land use plans and the Local Environmental Plan, and ensure developments meet these requirements. Ensure sustainability principles are embedded into our policies and planning tools for future developments. 	<ul style="list-style-type: none"> Provide infrastructure access for the CORSnet-NSW. Involvement in sustainable projects such as solar via integration to our corporate network for monitoring.
Vibrant city and town centres	<ul style="list-style-type: none"> Enhance and revitalise town centres and manage streetscapes to improve the visual appeal of the CBD, towns and villages. Encourage night-time social connections. Improve the greening and cooling of the region through the implementation of the Urban Street Tree Management Plan. 	<ul style="list-style-type: none"> Supply of community WiFi. Supply of community CCTV in Tamworth, Barraba, Manilla, Kootingal. CCTV service or the Tamworth Police Local Area Comment.
Providing high quality lifestyle, recreational and community facilities such as libraries, pools, park, sports facilities, art centres and cemeteries	<ul style="list-style-type: none"> Implement the respective strategic plans and masterplans for our open spaces and recreational facilities. Develop an arts and learning precinct that includes a performing arts centre and shared cultural facilities. Deliver a multipurpose community centre at Kootingal. Establish Aquatic facilities as regional sports and recreation attractions. 	<ul style="list-style-type: none"> Access to Technology to be able to deliver onsite services to allow staff access to the TRC's corporate system. Development of community infrastructure with the use of community CCTV and public WiFi.



FOCUS AREA 3 - PROSPERITY AND INNOVATION

Priority	Strategies	How priority is addressed in this Plan
Be an attractive region for new and existing businesses to invest	<ul style="list-style-type: none"> ▪ Ensure business friendly principles are embedded into our policies, planning and operations, such as fast-tracking development applications. ▪ Implement actions from the Tamworth Economic Development and Investment Strategy. ▪ Increase opportunities for aboriginal economic and business growth. 	<ul style="list-style-type: none"> ▪ Ensuring availability of up to date IT infrastructure and services for TRC to interact with external businesses, community members and visitors, e.g. development portal, MyTRC App etc.
The Tamworth region is Country Australia's leading and most vibrant destination with a sustainable and dynamic visitor economy	<ul style="list-style-type: none"> ▪ Make Tamworth the events capital of Country Australia by leveraging the Country Music Festival and growing our signature, bespoke and business events. ▪ Enrich the experience of visitors through arts, culture, aboriginal culture, nature, heritage and food experiences. ▪ Activate our assets and precincts to maximise the potential for equine, agriculture, sport, education and visitor economy. 	<ul style="list-style-type: none"> ▪ Delivery of key IT infrastructure and services at TRC sporting and commercial locations such as the airport, AELEC, Capitol Theatre, TRECC, Sports Dome.



FOCUS AREA 4 - RESILIENT AND DIVERSE COMMUNITIES

Priority	Strategies	How priority is addressed in this Plan
Our towns, villages and communities grow and prosper	<ul style="list-style-type: none"> ▪ Establish local strategies and community groups for towns and villages, including Kootingal, Manilla, Barraba and Nundle. ▪ Deliver inclusive opportunities for local communities to be actively involved in decision-making. 	<ul style="list-style-type: none"> ▪ Enabling online resources and portals to function and be available 24/7 so all community members have permanent access to information and capability to submit applications, requests and feedback.
Be a safer and more resilient community	<ul style="list-style-type: none"> ▪ Improve drought resilience of regional Communities ▪ Support our region's prevention, preparedness, response and recovery measures to help build our resilience to disasters. ▪ Support the state government's priority to reduce crime including violence, adult re-offending, road fatalities, domestic violence and youth crime. ▪ Use education and enforcement of state and local regulations to deliver equitable outcomes for individuals and the community. 	<ul style="list-style-type: none"> ▪ Continuous availability of online services and communication network technology to support emergency alert and flood warning systems.



FOCUS AREA 5 - CONNECT OUR REGION AND ITS CITIZENS

Priority	Strategies	How priority is addressed in this Plan
Our community is enabled by technology	<ul style="list-style-type: none"> Support the community through improved digital services that meet the community's needs. 	<ul style="list-style-type: none"> Online services hosted on TRC infrastructure for services for planning, events, requests, feedback and community safety platforms.



FOCUS AREA 6 - WORKING WITH AND PROTECTING OUR ENVIRONMENT

Priority	Strategies	How priority is addressed in this Plan
A region where sustainable design of facilities, infrastructure and development are the rule not the exception.	<ul style="list-style-type: none"> Improve environmental sustainability across the region by implementing the initiatives, plans and programs identified within the Sustainability Strategy. Manage stormwater run off to protect our built and natural environments. 	<ul style="list-style-type: none"> Provide technology support required for use of solar technology to offset the power consumption of IT services.
We care for our natural environment (including animals, plants, birds, insects, and aquatic life).	<ul style="list-style-type: none"> Ensure that our planning and operational processes minimise and mitigate the impacts on biosecurity and our natural environment. 	<ul style="list-style-type: none"> IT infrastructure in external environments designed to minimise impact on natural environment.



FOCUS AREA 7 - CELEBRATE OUR CULTURES AND HERITAGE

Priority	Strategies	How priority is addressed in this Plan
Our region's heritage assets are protected.	<ul style="list-style-type: none"> Support the development of museum, gallery and library heritage collections. Ensure development controls and zoning protect the heritage significance of items and conservation areas. 	<ul style="list-style-type: none"> Supporting Gallery, Museum and Library with both online services and IT hardware to enable delivery of their services.



FOCUS AREA 8 - A STRONG AND VIBRANT IDENTITY

Priority	Strategies	How priority is addressed in this Plan
Be known for country music and so much more	<ul style="list-style-type: none"> Develop and evolve our story to expand Tamworth's identity through all our strategies, plans and communications. 	<ul style="list-style-type: none"> Online services enabling TRC to communicate event and identity information locally, nationally and internationally.



FOCUS AREA 9 - OPEN AND COLLABORATIVE LEADERSHIP

Priority	Strategies	How priority is addressed in this Plan
Conduct the business of Council with transparency and accountability	<ul style="list-style-type: none">▪ Ensure Council meets the requirements of the Local Government Act and other information and disclosure requirements under State and Federal laws.▪ Make our planning and reporting easy to understand and reflective of the community's wants, needs and aspirations.	<ul style="list-style-type: none">▪ Adoption of strong cyber security measures to ensure the community data is safe.▪ Better use of corporate applications such as Technology One.▪ Financial position is communicated publicly on an annual cycle▪ Proposed works are submitted for public exhibition to the community where appropriate.▪ Tangible asset management activities are aligned with the priorities identified as important to the community.
Our financial position is strong and able to meet our current and future obligations to our community	<ul style="list-style-type: none">▪ Ensure long term financial sustainability through short, medium and long-term financial planning.▪ Assets are managed to meet our community's needs through sustainable, cost-effective lifecycle management.	<ul style="list-style-type: none">▪ Better use of on-premises private cloud options as a more cost-effective approach to infrastructure hosting.▪ Budgets and lifecycle costs are reviewed annually and communicated to the Council, executive staff and asset management reference group members.
Everyone in our community feels informed, heard and understood.	<ul style="list-style-type: none">▪ Develop and implement a Communications Strategy to help build trust and transparency between our community and Council.▪ Provide customer services that are proactive, available, helpful, and accessible to everyone in the region.	<ul style="list-style-type: none">▪ The provision of a 24/7 TRC web presence.
Our workforce is agile and future ready.	<ul style="list-style-type: none">▪ Attract and retain a high performing and engaged workforce.▪ Plan for our future workforce.	<ul style="list-style-type: none">▪ The ability to provide global working conditions for key IT staff and assess to the latest technology to enhance their learning and development.
Build strategic partnerships and advocate to other levels of government to ensure our community needs are met and concerns heard.	<ul style="list-style-type: none">▪ Develop and manage relationships with all levels of government and stakeholders Participate in the Namoi Joint Organisation of Councils.	<ul style="list-style-type: none">▪ Strong and personal relationships with key suppliers and partners across the IT industry▪ Provide IT services for smaller councils across the region. This allows for the sharing and cost benefits for each of the council communities.

Sustainability Strategy

In addition to the suite of strategic documents that detail the focus areas and how we plan to achieve them, Council is currently preparing a new Sustainability Strategy. The targets and actions of this strategy will be incorporated where applicable in future versions of this Plan.

Part of the process of developing this strategy has been the alignment of our strategic focus areas with the United Nations Sustainable Development Goals (SDGs), adopted by the United Nations Member States in 2015.

The SDGs are aligned as follows:

1. OUR WATER SECURITY "Deliver durable water infrastructure including raw water"	  
2. A LIVEABLE BUILT ENVIRONMENT "Facilitate smart growth and housing choices"	  
3. PROSPERITY AND INNOVATION "Create a Prosperous Region"	 
4. RESILIENT AND DIVERSE COMMUNITIES "Build resilient communities"	   
5. CONNECT OUR REGION AND ITS CITIZENS	 
6. WORKING WITH AND PROTECTING OUR ENVIRONMENT "Design with Nature"	      
7. CELEBRATE OUR CULTURES AND HERITAGE	   
8. A STRONG AND VIBRANT IDENTITY "Strengthen our proud identity"	  
9. OPEN AND COLLABORATIVE LEADERSHIP	  

3.2 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Information Technology service are outlined in Table 3.2.

Table 3.2: Legislative Requirements

Legislation	Requirement
Archives Act 1983	The objects of this Act are to provide for a National Archives of Australia, whose functions include: (i) identifying the archival resources of the Commonwealth; (ii) preserving and making publicly available the archival resources of the Commonwealth; and (iii) overseeing Commonwealth record-keeping, by determining standards and providing advice to Commonwealth institutions; and to impose record-keeping obligations in respect of Commonwealth records.
Disability Discrimination Act 1992, Disability Discrimination and Other Human Rights Legislation Amendment Act 2009	An act relating to discrimination on the ground of disability. The Federal Disability Discrimination Act 1992 (D.D.A.) provides protection for everyone in Australia against discrimination based on disability. It encourages everyone to be involved in implementing the Act and to share in the overall benefits to the community and the economy that flow from participation by the widest range of people.
Freedom of Information Act, 1991	Sets out the framework for processing requests for Council information and records.
Government Information (Public Access) Act 2009	The purpose of the Act is to open government information to the public by (a) authorising and encouraging the proactive public release of government information by agencies, (b) giving members of the public an enforceable right to access government information, and (c) providing that access to government information is restricted only when there is an overriding public interest against disclosure.
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.
Local Government (General) Regulation 2005	Sets out standards, requirements and conditions relating to approvals for water supply, sewerage and stormwater drainage work, management of waste, activities on community land, public roads and other public spaces.
Local Government Act - Annual Reporting Section 428(2)(d)	A report of the condition of the public works (including public buildings, public road and water sewerage and drainage works) under the control of Council as at the end of that year together with: <ul style="list-style-type: none"> - An estimate (at current values) of the amount of money required to bring the works up to a satisfactory standard - An estimate (at current values) of the annual expense of maintain the works at that standard. The Council's programme for maintenance for that year in respect of the works.
Local Government Amendment (Planning and Reporting) Act 2009	Local Government Amendment (Planning and Reporting) Act 2009 includes the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Privacy Act	The objects of this Act are (a) to promote the protection of the privacy of individuals; (b) to recognise that the protection of the privacy of individuals is balanced with the interests of entities in carrying out their functions or activities; (c) to provide the basis for nationally consistent regulation of privacy and the handling of personal information; (d) to promote responsible and transparent handling of personal information by entities; (e) to facilitate an efficient credit reporting system while ensuring that the privacy of individuals is respected; (f) to facilitate the free flow of information across national borders while ensuring that the privacy of individuals is respected; (g) to provide a means for

Legislation	Requirement
	individuals to complain about an alleged interference with their privacy; and (h) to implement Australia's international obligation in relation to privacy.
Public Health Act 2010 and Public Health Regulation 2012	<p>The purpose of the Act is to promote, protect and improve public health, control risks to public health, promote control of infectious diseases, prevent the spread of infectious diseases, recognise the role of local government in protecting public health, and monitor diseases and conditions affecting public health.</p> <p>Under the Act a local government authority has, in relation to its area, the responsibility:</p> <ul style="list-style-type: none"> - to take appropriate measures to ensure compliance with the requirements of this Act in relation to private water suppliers, water carters, public swimming pools and spa pools, regulated systems and premises on which skin penetration procedures are carried out - of appointing authorised officers to enable it to exercise its functions under this Act and ensuring that its authorised officers duly exercise their functions under this Act. <p>The Regulation makes provision for: installation, operating and maintenance requirements for air-conditioning systems and other regulated systems; operating requirements for public swimming pools and spa pools.</p>
Public Records Act 2002	This act sets out requirements in respect to maintaining Public Records.
State Records Act, 1997	Sets our responsibilities and requirements in relation to the management of Council records.
Surveillance Devices Act 2004	This act sets out requirements in respect to use of Surveillance Devices.
Work Health & Safety Act 2012, Work Health & Safety Regulation 2011, Workplace Injury Management and Workers Compensation Act 1998 and Workers Compensation Act 1987	Sets out roles and responsibilities to secure the health, safety and welfare of persons at work and covering injury management, emphasising rehabilitation of workers particularly for return to work. Council is to provide a safe working environment and supply equipment to ensure safety.
Work Health and Safety Act 2011	Sets out the roles and responsibilities to secure the health, safety and welfare of persons at work.

Codes and Standards

Asset management is also carried out in accordance with the following Codes and Standards:

- **Australian Accounting Standards** – Sets out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets. AASB116 relates specifically to reporting on asset condition and consumption to Councillors, management and the community.
- **Australian Standards** – cover a wide range of design, construction, trades and service provision requirements including standards for playgrounds and accessibility.
- **Essential Eight** – a set of cyber security standards developed for/by the Australian Cyber Security Centre, a division of the Australian Government Australian Signals Directorate⁴

⁴ [Essential Eight | Cyber.gov.au](https://www.cyber.gov.au/essential-eight)

3.3 Customer Values

Service levels are defined in three ways: customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- The aspects of the service that are important to the customer.
- Whether they see value in what is currently provided.
- The likely trend over time based on the current budget provision.

Table 3.3: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback
Fit-for-purpose IT hardware and applications	<i>To be completed by Council</i>	<i>To be completed by Council</i>
Responsiveness to functionality issues		
Accessibility of information		
User-friendly applications/platforms		

3.4 Customer Levels of Service

Customer Levels of Service for IT assets are considered in a different context to those for more traditional infrastructure asset types.

Table 3.4a: Customer Level of Service – Incident Management

Priority	Description	Target First Response Time (Not an auto response)	*Target Resolution Time
1 Business Critical	<ul style="list-style-type: none"> ▪ Complete catastrophe ▪ Whole of organisation is affected ▪ Customers unable to transact with TRC ▪ Implement Disaster Recovery ▪ Production only ▪ Critical services such as water and sewer 	Immediate	ASAP *Disaster Recovery – 10 hours restoration of essential services TRC IT INCIDENTS Priority Matrix
2 Urgent	<ul style="list-style-type: none"> ▪ Single system or network outage ▪ Issue affecting customer facing services ▪ Issue affecting processing business critical processing e.g. payroll 	1 hour	1 Business day or as agreed
3 Important	<ul style="list-style-type: none"> ▪ Degraded service ▪ Intermittent ▪ Reduced quality ▪ No work around available 	1 Business day	3 Business days or as agreed
4 Minor	<ul style="list-style-type: none"> ▪ Not working at full capacity but still able to work ▪ Beta and Test Environments ▪ Work around is available 	2 Business days	5 Business days or as agreed
5 Assistance	<ul style="list-style-type: none"> ▪ Assistance ▪ Questions ▪ How to 	3 Business days	Mutual agreement

An Incident’s priority is determined by assessing its impact and urgency: ‘Urgency’ is a measure of how quickly a resolution of the Incident is required. ‘Impact’ is a measure of the extent of the Incident and of the potential damage caused by the Incident before it can be resolved.

Table 3.4b: Customer Level of Service – Incident Priority

		Impact			
		High	Mid	Low	
		<ul style="list-style-type: none"> Corporate system down Service lost in multiple critical locations Significant number of staff are not able to do their job Significant number of customers acutely disadvantaged Damage to reputation of TRC will be high Financial impact likely to exceed \$10k 	<ul style="list-style-type: none"> System is degraded Moderate number of staff affected and/or not able to do their job properly Moderate number of customers inconvenienced Damage to TRC reputation is likely to be moderate Financial impact likely to be less than \$10k 	<ul style="list-style-type: none"> Minimal number of staff affected but still able to deliver their service Minimal number of customers inconvenienced Damage to TRC reputation is minimal Financial impact is less likely to be less than \$1k 	
Urgency	High	<ul style="list-style-type: none"> Work is highly time sensitive Damage increases rapidly Security breach causing high risk to data and/or infrastructure No work around is available 	1	2	3
	Mid	<ul style="list-style-type: none"> Work function is impaired Damage caused increases considerably over time Work around is available, however is disruptive and or complex 	2	3	4
	Low	<ul style="list-style-type: none"> No interruption to service Easy alternate solution or workaround available Work is not time sensitive 	3	4	5

Customer Request Management

A service request timeframe is based on the number of resources, services, tasks and amount of lead time required. The following table is a guide to default time frames. However, it should be noted that any request may be scheduled or expediated as required.

Table 3.4c: Customer Level of Service – Request Management

	Simple	Basic	Medium	Complex
Target Response	30 minutes	6 hours	1 business day	2 business days
Target Fulfilment	2 hours	2 business days	5 business days	15 business days
Examples	<ul style="list-style-type: none"> ▪ Password reset ▪ Booking of resources* <ul style="list-style-type: none"> ▪ Laptop ▪ Meeting room ▪ Projector <p>* Subject to availability/must be reserved in advance</p>	<ul style="list-style-type: none"> ▪ Access: email, system, network location ▪ File restored ▪ File upload or download ▪ Email group update ▪ Setup new computer/monitor etc. ▪ Exit Client ▪ Alter Client 	<ul style="list-style-type: none"> ▪ New client ▪ Report or Dashboard ▪ Drone Services 	<ul style="list-style-type: none"> ▪ Desktop relocations ▪ Report or Dashboard ▪ Provisioning of <ul style="list-style-type: none"> ▪ Software ▪ Hardware

3.5 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, these are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size, etc) or a new service that did not exist previously (e.g. a new library).
- **Operation** – the regular activities to provide services (e.g. opening hours, cleaning, mowing grass, energy, inspections, etc).
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs, etc).
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement).

Service and asset manager’s plan, implement and control technical service levels to influence the service outcomes.⁵

Table 3.5 is intended to show the activities expected to be provided under the current 10- year Planned Budget allocation and the Forecast activity requirements being recommended in this AM Plan.

Table 3.5 has been partially completed in this version of the plan and will be updated to include more information with each subsequent review of the plan.

This is an area identified in the Improvement Plan for future updates of the AM Plan (refer to Section 8.0).

Table 3.5: Technical Levels of Service

Lifecycle Activity	Current Performance*	Recommended Performance **
Capital Expenditure	The Acquisitions and Renewal that can be provided within the current Planned Budget restraints	The Acquisitions and Renewal that we would like to do as per the Lifecycle Forecast
	\$20,335,560	\$20,335,560
Operational and Maintenance Expenditure	The Operation and Maintenance activities that can be done within the current Planned Budget restraints	The Operation and Maintenance activities we would like to do as per the Lifecycle Forecast
	\$26,644,636	\$27,569,300 GAP -\$924,664
	\$46,980,326	\$47,904,990

Note: * Current activities related to Planned Budget.
 ** Expected performance related to forecast lifecycle costs.

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

⁵ IPWEA, 2015, IIMM, p 2|28.

4.0 FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecasts

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

Of note in relation to forecast demand, Council has adopted Blueprint100 as its growth strategy, which sets a population target of 100,000 by 2041. This is equivalent to annual population growth of 2.35%. If this target is achieved, it will represent a higher than current growth rate (0.68% per annum 2016-2021⁶) and have a commensurate impact on increased demand.

4.3 Demand Impact and Demand Management Plan

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

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

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

⁶ [Estimated Resident Population \(ERP\) | Tamworth Regional Council | Community profile](#)

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Workforce Growth	614 current staff	Expected FTE growth to accommodate population targets in Blueprint100	Increased demand for Council services with commensurate impacts on IT assets and services required to support them	Continuous re-assessment of changing needs in order to plan for demand and identify gaps and risks
Staff expectations, continuous improvement			Need for highly available and mobile solutions and system for streamlining and automating processes	Provide IT solutions to increase the agility of our workforce to respond to customer needs
Infrastructure asset renewal and maintenance demand			Need for more advanced systems and tools	Design to anticipate expectations and deliver sustainability
Technological change (continuous)			Need to continually update assets Process change Communication needs Organisation wide training	

4.4 Asset Programs to meet demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the Long-Term Financial Plan (Refer to Section 5).

5.0 LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

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

Useful lives for these assets vary from one to ten years, with the average useful life of assets in this plan being five years. Of the 3052 assets, 205 have not had a useful life identified.

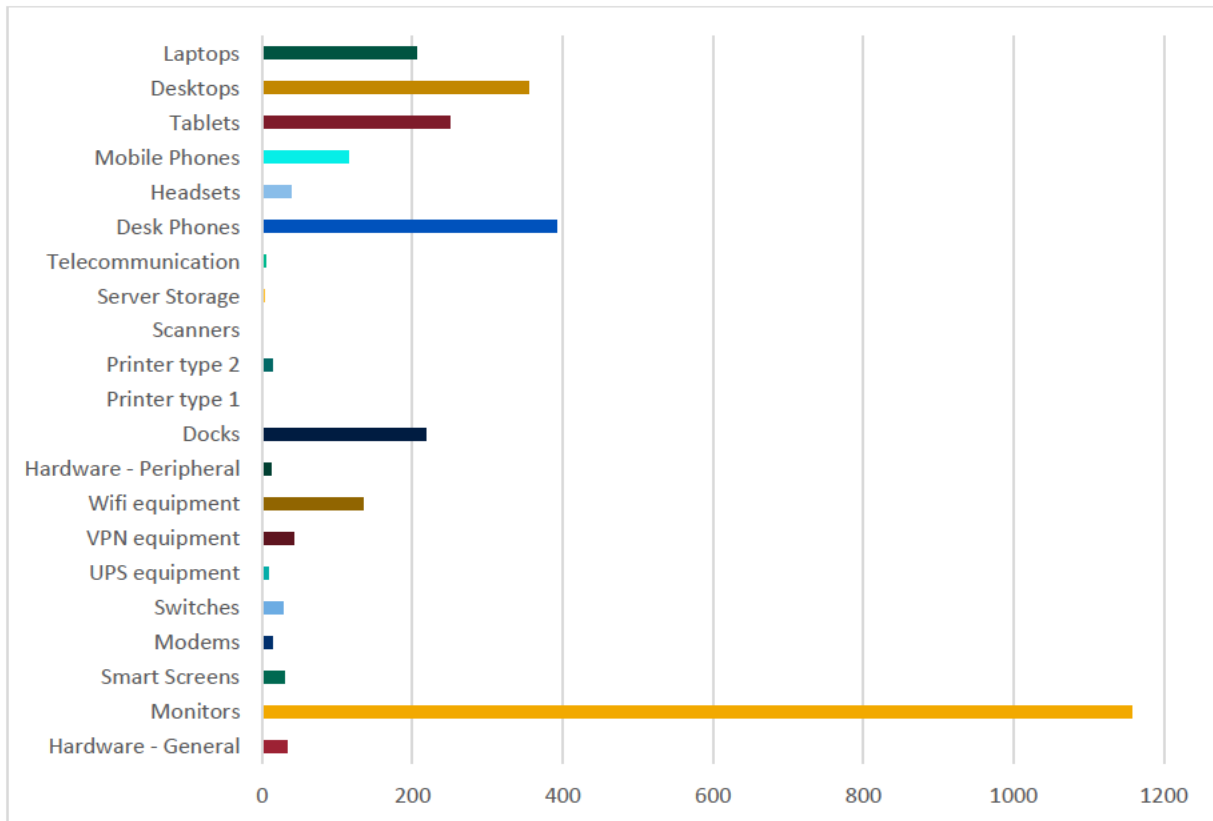
Some assets continue to function effectively beyond their expected life and as a consequence, there are assets in this plan with ages up to 13 years.

The total replacement value for these assets is \$3,944,100.

Table 5.1.1: Assets covered by this Plan

Asset Category	Quantity
Information Technology\Hardware	33
Information Technology\Hardware\Display\Monitor	1157
Information Technology\Hardware\Display\Smart Screen	30
Information Technology\Hardware\Network Equipment\Modem	14
Information Technology\Hardware\Network Equipment\Switch	27
Information Technology\Hardware\Network Equipment\UPS	8
Information Technology\Hardware\Network Equipment\VPN	41
Information Technology\Hardware\Network Equipment\Wifi	134
Information Technology\Hardware\Peripheral	12
Information Technology\Hardware\Peripheral\Dock	218
Information Technology\Hardware\Printer	1
Information Technology\Hardware\Printer\Printer	14
Information Technology\Hardware\Printer\Scanner	1
Information Technology\Hardware\Server\Storage	3
Information Technology\Hardware\Telecommunication	5
Information Technology\Hardware\Telecommunication\Desk Phone	391
Information Technology\Hardware\Telecommunication\Headset	39
Information Technology\Hardware\Telecommunication\Mobile Phone	114
Information Technology\Hardware\Telecommunication\Tablet	152
Information Technology\Hardware\Workstation\Desktop	354
Information Technology\Hardware\Workstation\Laptop	206
Information Technology\Hardware\Workstation\Tablet	98

Figure 5.1.1: Assets Covered by this Plan



5.1.2 Asset capacity and performance

Capacity represents the ability for an asset to meet demand.

Assets are generally provided to meet design standards where these are available. However, there are insufficient resources to address all known deficiencies, but, capacity and performance for IT assets are not considered in the same terms as for other asset types.

No known service deficiencies have been identified at this time.

5.1.3 Asset condition

Condition of IT assets is monitored in terms of functionality, because an IT asset either functions as intended or does not (failure mode).

In contrast, asset condition is traditionally measured using a 1 – 5 grading system⁷ as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM Plan, results are translated to a 1 – 5 grading scale for ease of communication.

Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
0	Unrated: no condition rating recorded at this time OR rating not required
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely

⁷ IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Condition Grading	Description of Condition
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 5.1.3

Figure 5.1.3: Asset Condition Profile – All



5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Maintenance includes all actions necessary for retaining an asset, as near as practicable, to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include hardware repairs and system updates.

The trend in maintenance budgets are shown in Tables 5.2a and 5.2b.

Table 5.2a: Operations Budget Trends

Year	Operations Budget \$
2022/2023 Financial Year	\$473,085
2023/2024 Financial Year	\$473,085
2024/2025 Financial Year	\$473,085

Operations budget levels are considered to be adequate to meet projected service levels, which are expected to be less than current service levels. Where operation budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan.

Table 5.2b: Maintenance Budget Trends

Year	Maintenance Budget \$
2022/2023 Financial Year	\$1,434,804
2023/2024 Financial Year	\$1,434,804
2024/2025 Financial Year	\$1,434,804

Maintenance budget levels are considered to be adequate to meet projected service levels, which are expected to be less than current service levels.

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan.

Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Asset hierarchy

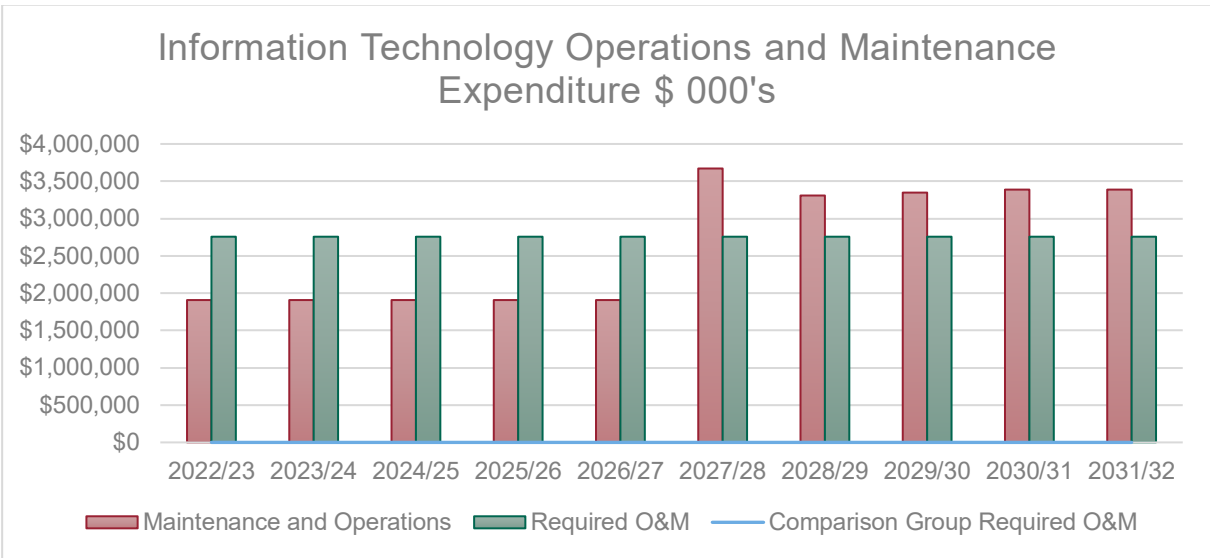
An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for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

No asset hierarchy has been identified at this time.

Summary of forecast operations and maintenance costs

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

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

Over the 10-year plan, there is a \$925,000 gap in required OPEX funds and what has been budgeted in the Long-Term Financial Plan. Further documentation of the specific service and risk consequences of this gap will need to occur to effectively triage work and manage the consequences of this shortfall.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

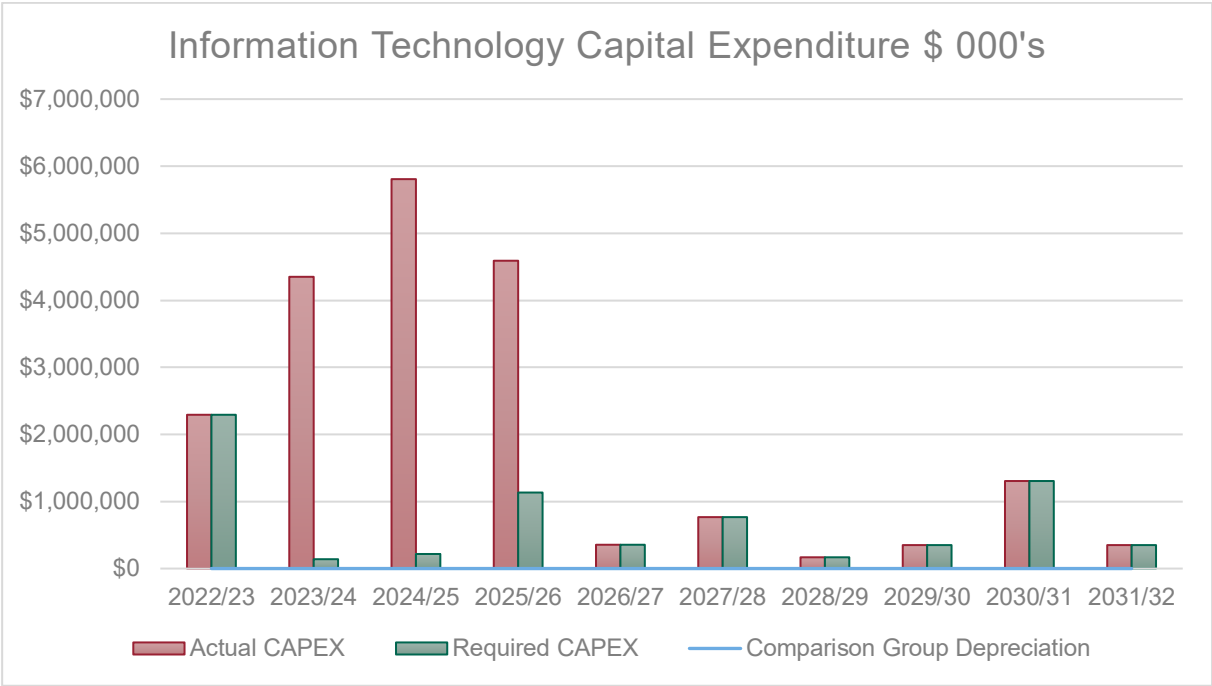
Renewal requirements have been assessed using Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year).

The estimates for renewals in this AM Plan were based on the asset register.

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.

Figure 5.4: Forecast Renewal Costs



All figure values are shown in current day dollars.

Currently forecast renewals and planned budgets are in alignment, with no shortfall. This will be subject to change depending on the outcomes of the Technology Blueprint.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be gifted or contributed to the Council for zero acquisition cost.

5.5.1 Selection criteria

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

5.6 Disposal Plan

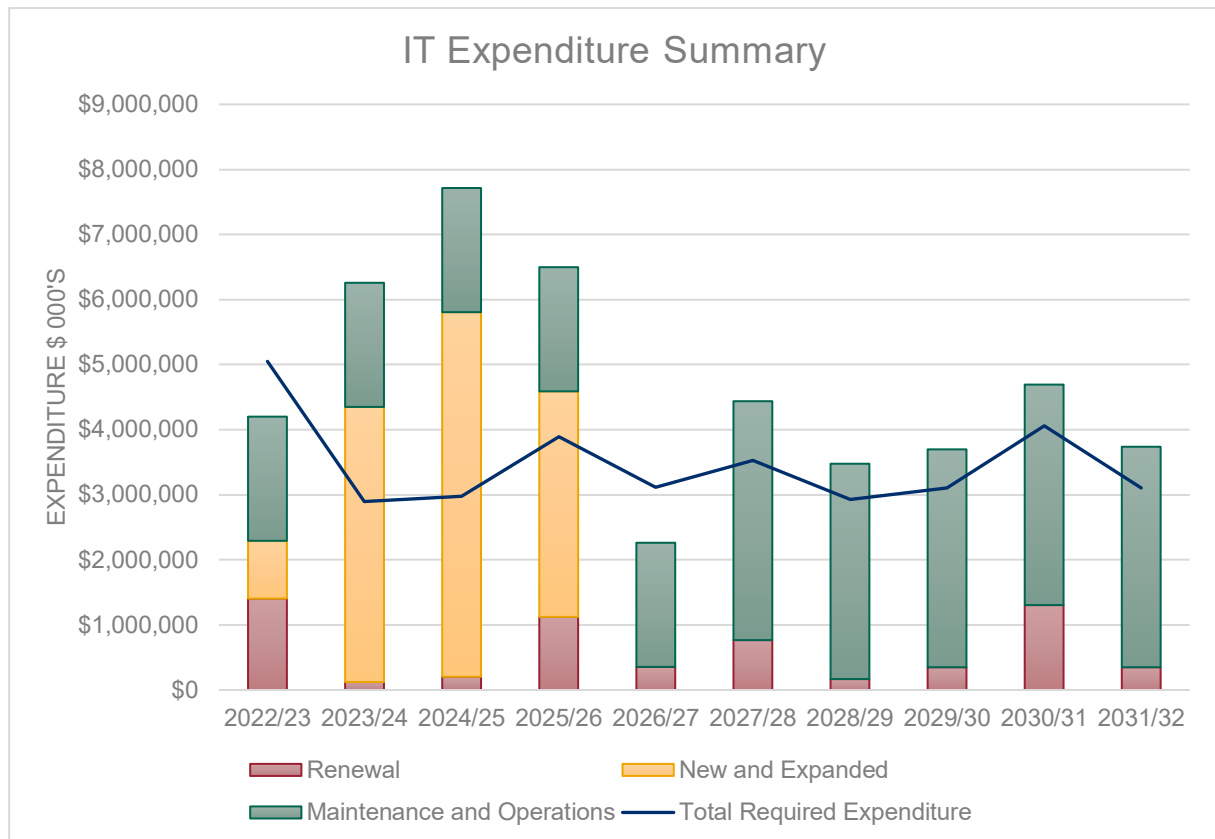
Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. No assets have been identified for disposal at this time. As IT assets are on a compact renewal cycle and retired assets do require a disposal strategy, this section will be reviewed for the next version of the plan.

5.6.1 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.6.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

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

Figure 5.6.1: Lifecycle Summary



6.0 RISK MANAGEMENT PLANNING

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

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

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

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

By identifying critical assets and failure modes, an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets. Critical assets have not been identified at this time. This is an area identified in the Improvement Plan for future updates of the AM Plan (refer to Section 8.0) and future versions of this AM Plan will include increasingly detailed information in this section.

6.2 Risk Assessment

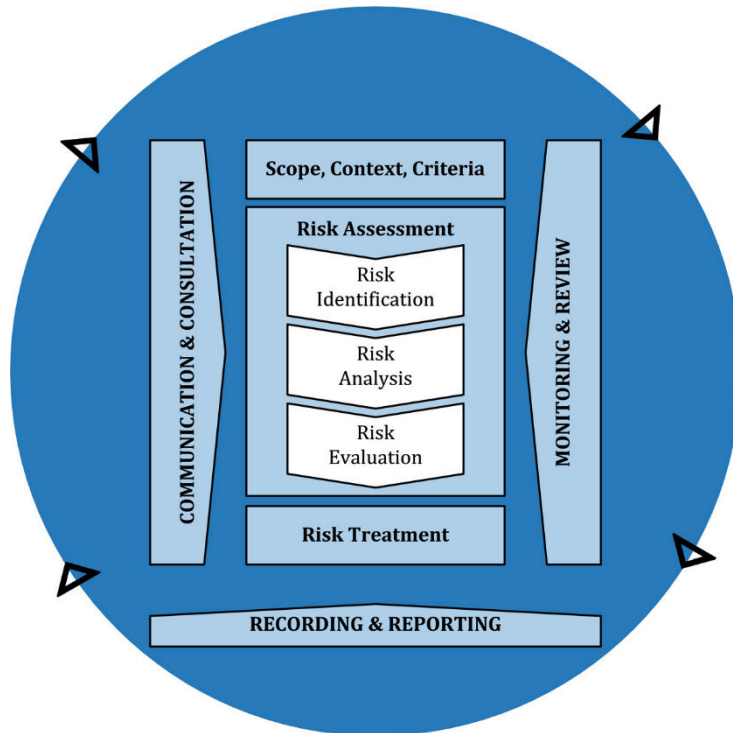
The risk management process used is shown in Figure 6.2 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

⁸ ISO 31000:2009, p 2

Fig 6.2 Risk Management Process – Abridged
















Source: ISO 31000:2018, Figure 1, p9

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













An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the Council.

Table 6.2: Risks and Treatment Plans

Risk Rating Key		Consequence Rating Key		Likelihood Rating Key	
Very High		Critical		Almost Certain	
High		Major		Likely	
Medium		Minor		Possible	
Low		Insignificant		Unlikely	
Eliminated					

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

Activity	Risk	Cause	Inherent Risk			Current Controls	Residual Risk			Proposed Control Measures
			C	L	R		C	L	R	
Externally imposed organisational changes	<ul style="list-style-type: none"> Disruption/reduced services Employee unrest and stress 	<ul style="list-style-type: none"> Legislative change Changes of community expectations Financial unsustainability Streamlining of services 				<ul style="list-style-type: none"> Strategic and operational planning Representation on industry forums Member of industry newsletters Aware of current affairs <p><i>Effectiveness: 80%</i></p>				<ul style="list-style-type: none"> Ensure continued IT team representation
Major disaster/ climatic event	<ul style="list-style-type: none"> Additional costs Difficulty in forward planning Damage to infrastructure and connectivity Public and staff safety Disruption/reduced or close down of services Working remotely -loss of team unity 	<ul style="list-style-type: none"> Severe weather Natural disaster Pandemic Fire in the building 				<ul style="list-style-type: none"> Disaster recovery planning representation on working/crisis groups Temperature sensors <p><i>Effectiveness: 95%</i></p>				<ul style="list-style-type: none"> DRP training and awareness Servicing of temp sensors

Activity	Risk	Cause	Inherent Risk			Current Controls	Residual Risk			Proposed Control Measures
			C	L	R		C	L	R	
Skills shortage	<ul style="list-style-type: none"> ▪ Demand for work exceeds workers available ▪ High overtime costs ▪ Staff burn out ▪ Reduced quality of work ▪ Missed income opportunities e.g. managed services clients 	<ul style="list-style-type: none"> ▪ Illness ▪ Unable to fill vacancies ▪ Industrial relations issues ▪ Reliance on key members 				<ul style="list-style-type: none"> ▪ Explore alternative sourcing e.g. recruitment agency outsourcing ▪ Change current work models e.g. reprioritise <p><i>Effectiveness: 70%</i></p>				<ul style="list-style-type: none"> ▪ Diversify and broaden the technical expertise of current workforce
Technology advances more rapidly than council is able to adapt	<ul style="list-style-type: none"> ▪ Reduced customer service ▪ Inflexible systems ▪ Increased costs ▪ Data and or integrity loses 	<ul style="list-style-type: none"> ▪ Limited infrastructure and or systems ▪ Unskilled/trained staff ▪ Limited funding 				<ul style="list-style-type: none"> ▪ Proactive staff, research and investigate current trends and upgrades ▪ Networking/participating in IT professionals groups ▪ Training ▪ Budgeting <p><i>Effectiveness: 80%</i></p>				<ul style="list-style-type: none"> ▪ Continued application of current controls
Cyber attack	<ul style="list-style-type: none"> ▪ Disrupt or stop access to systems ▪ Loss of Intellectual Property ▪ Damage to reputation 	<ul style="list-style-type: none"> ▪ Phishing ▪ Malware ▪ Ransomware ▪ Scams ▪ Theft/data leakage 				<ul style="list-style-type: none"> ▪ Firewalls ▪ Anti virus software kept up to date ▪ Back ups ▪ Training ▪ SWPs, Policies <p><i>Effectiveness: 95%</i></p>				<ul style="list-style-type: none"> ▪ Continued application of current controls ▪ Delivery of Cyber Security Awareness Program
Human error	<ul style="list-style-type: none"> ▪ Security breach ▪ Key documents destroyed ▪ Incorrect reporting of information, decision errors 	<ul style="list-style-type: none"> ▪ Incorrect data processes ▪ Careless data disposal ▪ Accidental opening of infected emails 				<ul style="list-style-type: none"> ▪ SWPs ▪ Training ▪ Limit access to sensitive systems ▪ Disaster recovery plans ▪ Systems audit reports <p><i>Effectiveness: 90%</i></p>				<ul style="list-style-type: none"> ▪ Automation, Process workflow - creation of RMs ▪ Creation of audit reports

6.3 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

6.3.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next ten years. These will be confirmed after the release of the Technology Blueprint.

6.3.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Increased response times
- Triaging of operations and maintenance activities
- Rationalisation of renewal and/or acquisition requirements.

6.3.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Reduced level of service
- Disruption to system access and reputational damage due to cyber attacks.

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

- Exploring resourcing options
- Continuous re-assessment of requirements to deliver critical services
- Maintenance of firewalls, anti-virus software and training.

These actions and expenditures are considered and included in the Risk Management Plan.

7.0 FINANCIAL SUMMARY

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

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

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

- asset renewal funding ratio (proposed renewal budget for the next ten years / forecast renewal costs for next ten years)
- medium term forecast costs/proposed budget (over ten years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio⁹ 100%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next ten years we expect to have 100% of the funds required for the optimal renewal of assets.

Medium term – 10-year financial planning period

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

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

The forecast operations, maintenance and renewal costs over the 10-year planning period is \$3.5m on average per year.

The proposed (budget) operations, maintenance and renewal funding is \$4.7m on average per year giving a 10-year funding surplus of \$1.2m per year. This expenditure includes the significant upgrades included as part of the Technology Blueprint IT strategy.

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

7.1.2 Forecast Costs (outlays) for the Long-Term Financial Plan

Table 7.1.2 shows the forecast costs (outlays) required for consideration in the 10-year Long-Term Financial Plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the Long-Term Financial Plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the Long-Term Financial Plan).

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

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

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

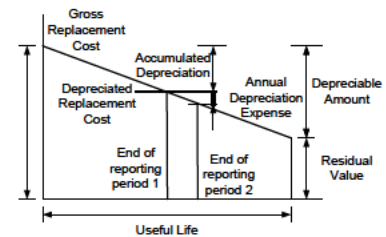
Expenditure Type	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Actual (Budgeted) Expenditure										
Renewal	\$1,405,513	\$122,397	\$204,160	\$1,123,495	\$355,000	\$767,000	\$168,000	\$350,000	\$1,305,335	\$350,000
New and Expanded	\$887,564	\$4,227,957	\$5,602,653	\$3,466,616						
Actual CAPEX	\$2,293,077	\$4,350,354	\$5,806,813	\$4,590,111	\$355,000	\$767,000	\$168,000	\$350,000	\$1,305,335	\$350,000
Maintenance and Operations	\$1,907,889	\$1,907,889	\$1,907,889	\$1,907,889	\$1,907,889	\$3,671,206	\$3,309,106	\$3,348,142	\$3,388,350	\$3,388,386
Total Expenditure	\$4,200,966	\$6,258,243	\$7,714,702	\$6,498,000	\$2,262,889	\$4,438,206	\$3,477,106	\$3,698,142	\$4,693,685	\$3,738,386
Required Expenditure										
Required Renewal (Depreciation)	\$1,405,513	\$122,397	\$204,160	\$1,123,495	\$355,000	\$767,000	\$168,000	\$350,000	\$1,305,335	\$350,000
New and Expanded	\$887,564	\$16,957	\$13,073	\$10,117						
Required CAPEX	\$2,293,077	\$139,354	\$217,233	\$1,133,612	\$355,000	\$767,000	\$168,000	\$350,000	\$1,305,335	\$350,000
Required O&M	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930	\$2,756,930
Total Required Expenditure	\$5,050,007	\$2,896,284	\$2,974,163	\$3,890,542	\$3,111,930	\$3,523,930	\$2,924,930	\$3,106,930	\$4,062,265	\$3,106,930
OPEX Balance (GAP)	-\$849,041	-\$849,041	-\$849,041	-\$849,041	-\$849,041	\$914,276	\$552,176	\$591,212	\$631,420	\$631,456
RENEWAL Balance (GAP)	\$0	\$4,211,000	\$5,589,580	\$3,456,499	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL Balance (GAP)	-\$849,041	\$3,361,959	\$4,740,539	\$2,607,458	-\$849,041	\$914,276	\$552,176	\$591,212	\$631,420	\$631,456

7.2 Valuation Forecasts

7.2.1 Asset valuations

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

Replacement Cost (Current/Gross)	\$3,944,100
Depreciable Amount	\$3,944,100
Depreciated Replacement Cost ¹⁰	\$1,340,559
Depreciation	\$364,623



7.2.2 Valuation forecast

Asset values are forecast to increase in response to additional assets added to the service and increasing costs of assets with relatively short useful lives.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.3 Key Assumptions Made in this Plan

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

- The asset information sourced contains Council's "best knowledge" about the assets at the date of this plan
- Where not otherwise specified, budget forecasts are determined for year one and projected without escalation for future years
- Assets requiring renewal are identified from either the known asset information or an alternative method
- The timing of capital renewals based on the asset information held is applied by adding the useful life to the year of acquisition or year of last renewal
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge
- Assets requiring renewal are identified from either the asset register or an alternative method
- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal, unless otherwise specified.

This AM Plan is based on information with levels of confidence varying between 'uncertain' and 'reliable'.

7.4 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the

¹⁰ Also reported as Written Down Value, Carrying or Net Book Value.

information is current and accurate. Data confidence is classified on a A - E level scale¹¹ in accordance with Table 7.4a.

Table 7.4a: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 7.4b.

Table 7.4b: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Reliable	Demand drivers are known and consistent over time.
Growth projections	Acceptable	Derived from Technology Blueprint.
Acquisition forecast	Acceptable	Derived from Technology Blueprint.
Operation forecast	Acceptable	Derived from BAU budget costing along with estimated additional OPEX costs identified in the Technology Blueprint.
Maintenance forecast	Acceptable	Derived from BAU budget costing along with estimated additional OPEX costs identified in the Technology Blueprint.
Renewal forecast - Asset values	Uncertain	
- Asset useful lives	Acceptable	
Disposal forecast	Very Uncertain	No data specified

¹¹ Based on IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be Acceptable.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹²

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is TechnologyOne Financials.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is the TechnologyOne Asset register.

8.2 Improvement Plan

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

Responsibility for completion of the Improvement Plan actions sits with the Asset Owner – Manager Business Systems and Solutions.

Table 8.2: Improvement Plan

Task	Task	Resources Required	Timeline
1	Inclusion of software/applications to asset register	Manager Business Systems and Solutions (BSS)	TBC
2	Inclusion of software/application assets to IT AMP	IT Team	TBC
3	Development of IT Application Strategy and Roadmap	Manager BSS	TBC
4	Development of Capital Investment Strategy	Manager BSS	TBC
5	Continuously improve IT asset management processes and procedures	Manager BSS BSS Staff Assets Staff	Ongoing
6	Monitor performance and customer satisfaction to better understand IT asset performance and service delivery	Director Growth and Prosperity	Ongoing
7	Customer Levels of Service – identify LoS as per parameters in S3.5	Manager BSS BSS Staff Assets Staff	TBC
8	Technical Levels of Service – identify LoS as per parameters in S3.5	Manager BSS BSS Staff Assets Staff	TBC
9	Additional detail to be added to demand management area (S4.3).	Manager BSS BSS Staff Assets Staff	TBC
10	Review S5.1 to confirm service deficiency status	Manager BSS BSS Staff Assets Staff	TBC
11	Review S5.2 – to determine need for asset hierarchy and create if required.	Manager BSS BSS Staff Assets Staff	TBC

¹² ISO 55000 Refers to this as the Asset Management System

Task	Task	Resources Required	Timeline
12	Review Disposal Plan (S5.6) to document disposal strategy of high turnover asset groups.	Manager BSS BSS Staff Assets Staff	TBC
13	Identify and document critical assets (S6.1)	Manager BSS BSS Staff Assets Staff	TBC
14	Review after finalisation of the Technology Blueprint	Manager BSS Assets Staff	TBC
15	Take part in asset management maturity self-assessment to further clarify areas needed for improvement	Manager BSS BSS Staff Assets Staff	2023

Note: Corporate asset management goals are recorded in the organisational Strategic Asset Management Plan

8.3 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of four years and is due for complete revision and updating within six months of each Council election or in response to significant change impacting (an) asset class or classes.

8.4 Performance Measures

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

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

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney
<https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6>
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney
<https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8>
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- Tamworth Regional Blueprint100
- Tamworth Regional Council - Our Community Plan 2023 - 2033
- Tamworth Regional Council – Our Delivery Plan 2023 - 2025
- Tamworth Regional Council – Our Annual Plan and Budget 2022 - 23
- Tamworth Regional Council – Our Resourcing Plan (includes asset management strategy)
- Tamworth Regional Council Asset Management Policy
- New South Wales Climate Change Snapshot – AdaptNSW – NSW Office of Environment & Heritage -
<https://www.climatechange.environment.nsw.gov.au/sites/default/files/2021-06/NSW%20climate%20change%20snapshot.pdf>
- .id informed decision demographic resources - <https://home.id.com.au/>
- GHD report for Tamworth Regional Council – Asset Management and Improvement Plan (2018)
- New England North West Regional Plan 2036 [New-England-North-West---Final-regional-plan-2017-09.pdf](https://www.nenw.nsw.gov.au/files/2017-09/New-England-North-West---Final-regional-plan-2017-09.pdf) (nsw.gov.au)
- NSW 2021 State Plan [NSW2021 WEBVERSION.pdf](https://www.nsw.gov.au/2021-state-plan)

Appendix G Glossary of Asset Management Terms

Annual service cost (ASC)	<p>1) Reporting actual cost - The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.</p> <p>2) For investment analysis and budgeting - An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/opportunity and disposal costs, less revenue, etc.</p>
Asset category	Sub-group of assets within a class hierarchy for financial reporting and management purposes.
Asset class	A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, are shown as a single item without supplementary disclosure.
Asset condition assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.
Asset consumption	A measure of how much of the assets service potential has been 'consumed'.
Asset hierarchy	A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.
Asset management (AM)	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.
Asset renewal funding ratio	The ratio of the net present value of asset renewal funding accommodated over a 10-year period in a long-term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].
Asset Type - Cultural/Heritage asset*	An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.
Asset Type - Infrastructure asset	Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and often have no separate market value.
Asset*	A resource controlled by an entity as a result of past events and from which future economic or other benefits are expected to flow to the entity.
Average annual asset consumption (AAAC)*	The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by

dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

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

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

NEW - Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential, it may impact revenue and will increase future operations and maintenance expenditure.

RENEWAL - Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

UPGRADE - Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

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

Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount	The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.
Component	Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.
Core asset management	Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision- making).
Cost of an asset	The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.
Critical assets	Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.
Current replacement cost (CRC)	The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.
Deferred maintenance	The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset
Depreciable amount	The cost of an asset, or other amount substituted for its cost, less its residual value.
Depreciated replacement cost (DRC)	The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.
Depreciation / amortisation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
Expenditure	The spending of money on goods and services. Expenditure includes recurrent and capital outlays.
Expenses	Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.
Fair value	The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.
Financing gap	A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver.

The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Impairment loss	The amount by which the carrying amount of an asset exceeds its recoverable amount.
Key performance indicator	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
Level of service	The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.
Life Cycle Cost *	<p>1. Total LCC - the total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.</p> <p>2. Average LCC - the life cycle cost (LCC) is the average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over ten years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.</p>
Life Cycle Expenditure	The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long- term financial plan over ten years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.
Maintenance	<p>All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating e.g. road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.</p> <p>Planned maintenance - Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.</p> <p>Reactive maintenance - Unplanned repair work that is carried out in response to service requests and management/supervisory directions.</p> <p>Specific maintenance - Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.</p> <p>Unplanned maintenance - Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.</p>
Maintenance expenditure **	Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality	The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or nondisclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.
Modern equivalent asset	Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques
Net present value (NPV)	The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from e.g. the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.
Non-revenue generating investments	Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the organisation e.g. parks and playgrounds, footpaths, roads and bridges, libraries, etc.
Operating expenditure	Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes e.g. power, fuel, staff, plant equipment, on costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation are, on the other hand, included in operating expenses.
Operating expense	The gross outflow of economic benefits, being cash and non-cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.
Operating expenses	Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.
Operations	Regular activities to provide services such as public health, safety and amenity e.g. street sweeping, grass mowing and street lighting.
Operations, maintenance and renewal financing ratio	Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).
Operations, maintenance and renewal gap	Difference between budgeted expenditures in a long-term financial plan (or estimated future budgets in absence of a long-term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).
Recoverable amount	The higher of an asset's fair value, less costs to sell and its value in use.
Recurrent expenditure	Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding	Funding to pay for recurrent expenditure.
Rehabilitation	See capital renewal expenditure definition above.
Remaining useful life	The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.
Renewal	See capital renewal expenditure definition above.
Residual value	The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.
Revenue generating investments	Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Service potential	The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.
Service potential remaining	A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).
Specific maintenance	Replacement of higher value components/subcomponents of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/maintenance threshold and needs to be identified in a specific maintenance budget allocation.
Useful life	Estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset are expected to be consumed by the organisation.
Value in Use	The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.