Narromine
SHIRE COUNCIL

DRAFT
ASSET MANAGEMENT PLANS

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Water
(AMP1)

Contents

1. Executive Summary

Council's intention is to provide the residents in the townships of Narromine and Trangie with reticulated safe drinking water through infrastructure serviced and maintained to a level reflective of the community's expectations, that meets the requirements of statutory and regulatory bodies (NSW Department of Primary Industries Water and NSW Health) and operates in a manner that is both functional, cost effective and sustainable. The water reticulation system currently has fair value of approximately $31,933,552 as at 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements, etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy

The Integrated Water Cycle Management (IWCM) Plan is currently being developed and this Asset Management Plan will be updated after completion of the IWCM, which will involve stakeholder consultation and detailed financial analyses.

1.1 Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet required or increased levels of service.

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

- Provide water to a standard that supports the outcomes identified in Council's Community Strategic Plan and meets regulatory standards as set out in the Australian Drinking Water Guidelines;
- Ensure the maintenance of infrastructure at a safe and functional standard as set out in this Asset Management Plan as well as other guideline and Policy documents published from time to time;
- Ensure the management of water infrastructure assets deliver to the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.

Of the $305,477,468 (CV) of assets Council owns and/or is responsible for maintaining, 5.75% of these assets are water assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2 Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff – Asset Management Working Group, etc.

1.3 Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4 Water Supplies

Council supplies drinking water in Narromine and Trangie and non-drinking water in Tomingley.

In Narromine, the lowering of water levels currently experienced in the aquifers supplying the town is resulting in increasing levels of aquifer stress, i.e. reduction in yield and deterioration in water quality.

This occurs particularly during the warmer months, therefore decreasing the ability of Council to meet Peak Day Demand and Peak Week Demand conditions. It also has a flow on effect on reservoir recovery and maintaining adequate network pressure for firefighting and water quality (backflow prevention, etc.) therefore increasing the risk profile. Network redundancy is inadequate in the event of failure in supply due to the above.

A river sourced raw water system comprising of water pumps and storage, supplies water to a standpipe and the irrigation of playing fields and parks on the Northern side of Narromine. This raw water supply system has reached its end of useful life and is due for a major upgrade and refurbishment due to its age and Work Health and Safety concerns.

Trangie is experiencing a similar effect however, a recent augmentation, including drilling of three new bores and the construction of a new rising trunk mains and disinfection system, has alleviated the stress and improved water quality considerably.

Tomingley water supply is a partially filtered non-drinking system; Council is currently exploring alternative options regarding the future of this service.

Safe, reliable and a sustainable water supply is critical to community health and economic development. Therefore, the security of the water supply systems must not deteriorate to a level where community health and prosperity is at risk or compromised.

It is noted that Council will need to consider the augmentation of Narromine's Water Supply by means of a water treatment plant, reservoir and trunk mains. This Asset Management Plan will be reviewed and updated after completion of the Integrated Water Cycle Management (IWCM) Plan that will address financial as well as other impacts and the timing of these works.

1.5 The Water Supply Service

In summary, the water supply network comprises of the following major assets:

- Bores and river pumping station;
- Trunk Supply Mains including valves and hydrants;
- Treatment Plants;
- Pumping Stations;
- Service Reservoirs;
- Reticulation network including vales and hydrants; and
- Water Services, including water meter fleet.

A breakdown of the major assets, within the Shire of Narromine, is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (years)
Bores	Ea.	10	11
Storage Dam	Ea.	1	30
Trunk Main	Km	5.90	19
Treatment Plant	Ea.	1	13
Pumping Station	Ea.	2	36
Service Reservoir	Ea.	3	16
Reticulation Network (<150mm Dia.)	Km	119.20	20

Table 1 – Breakdown of Major Assets

While **several** assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing the end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, puts further additional strain on existing assets.

1.6 Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable drinking water to its customers while meeting legislative requirements.
2. Provide reliable and sustainable non- drinking water to its customers, when conditions permit.
3. Operate, maintain, renew and the upgrade of:
    - Bores;
    - River pumping;
    - Trunk supply mains;
    - Treatment plants;
    - Pumping stations;
    - Service reservoirs;
    - Reticulation network, and
    - Water services and water meters,

    to meet service levels set by Council and to meet statutory requirements.

4. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable water business.

It should be appreciated that Council does not have sufficient funds in the Water Reserve to provide some services to the desired service levels (technical or community expectations).

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion and investment.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades as funding opportunities become available.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. The framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

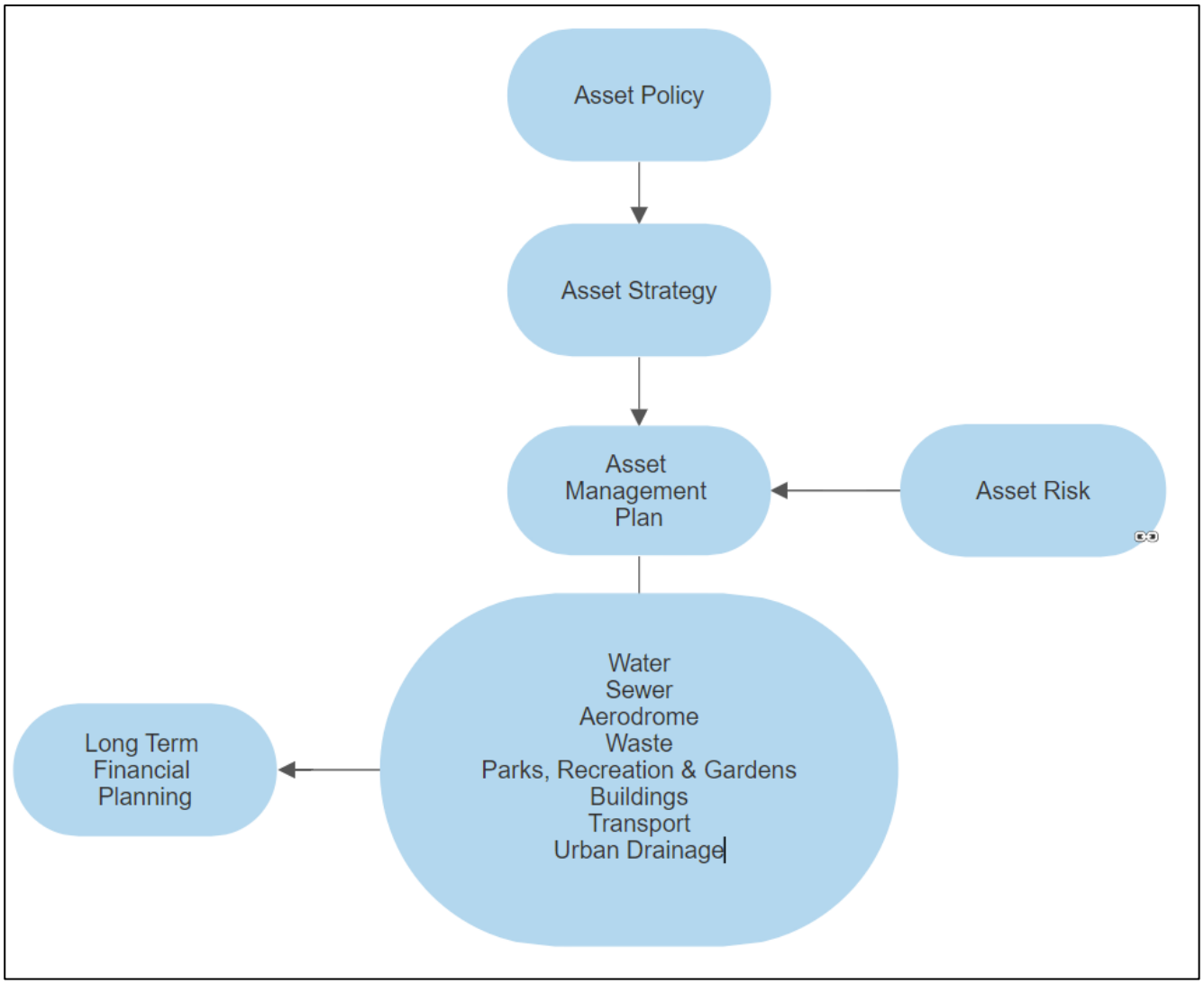

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1 Value based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Water assets have been condition rated externally during the revaluation in 2017, and are currently being updated in 2022.

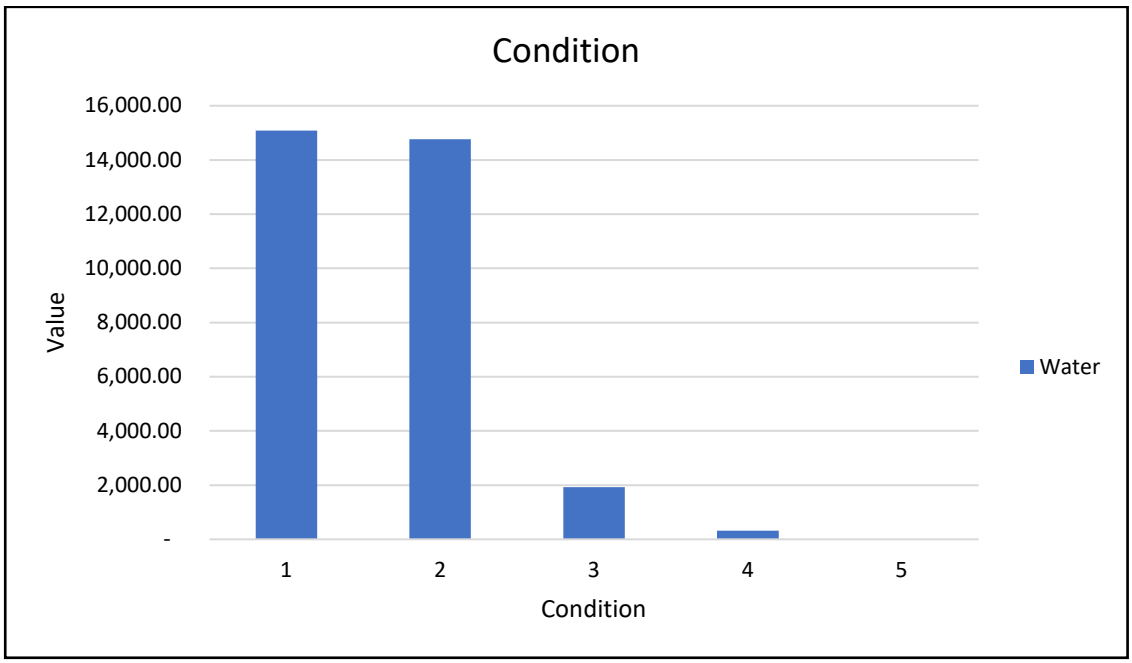

Figure 2 - Current condition of assets – Value based

3.2 Other criteria

The process of managing our Water assets is one of continually improving the knowledge Council has, including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The Asset Register contains the condition information of assets.

4. Future Planning for Water Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across the board. These Practices have been outlined in the Asset Management Strategy.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors. This plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Water and Sewerage Strategic Business Plan	Gives details and supporting information for Council's Community Strategic Plan, Delivery Program and Operational Plan and Budget.
Demand Management Plan (Narromine & Trangie)	Council is responsible for the water supply reticulation, sewerage and stormwater management services within the Narromine Local Government Area (LGA). As a local water utility (LWU), Council aims to be consistent with the NSW Government DPI Water, Best Practice Management of Water Supply and Sewerage Guidelines (DWE, 2007). This Demand Management Plan addresses one of the six "best practice" criteria set out by the guidelines by recommending an appropriate demand management strategy for implementation across Council's water supply systems.
Strategy Report on SCADA and Telemetry System	Proposed strategy to the LMWUA Councils to implement a SCADA telemetry system in line with current industry standards
Australis Asset Advisory Report Valuation Report	2017 Revaluation of all Water and Sewer Assets
Drinking Water Management System Annual Report	Annual Report that documents Narromine Shire Council's Drinking Water Management System (DWMS) implementation and drinking water performance for that financial year. This document is an NSW Department of Health requirement.

Document / System	Content
Strategic Business Plan: Water and Sewer	The Strategic Business Plan covers the development and operation of Council's Water System. It provides supporting information for Council's Management Plan.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Water and Sewer Action Plan	Details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Local Government Area(s).
Drinking Water Management System	Document that demonstrates Narromine Shire Council's compliance with the requirement of the Public Health Act 2010 to develop a Quality Assurance Plan in line with the "Framework for Drinking Water Quality Management" in the Australian Drinking Water Guidelines (ADWG).
Integrated Water Cycle Management Strategy	Integrated Water Cycle Management (IWCM) Evaluation Study (Hydro Science, 2010a) of Council identifying a number of issues that require actions from Council's water and wastewater services section.
Drinking Water Quality Management Plan	Document that records risks identified and actions to be undertaken by Council through the Drinking Water Quality Risk Assessment process.
Water Quality Risk Assessment	Document compiled by a working group including external facilitators, engineering and field staff and stakeholders identifying risks to the provision of Drinking Water that meets ADWG
Australian Drinking Water Guidelines	Provides a framework for the management of drinking water supplies appropriate for local conditions.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition
Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity

Table 2 - Supporting documentation

6. Services Provided and their Classification

6.1 Services Provided

Council provides the towns of Narromine and Trangie with a reticulated water supply that meets current drinking water standards, at minimum pressures, as outlined in our Customer Levels of Service. Assets covered within this Asset Management Plan can be seen in the attachments.

Asset Description	Unit of Measurement	Units
Bores	ea.	10
Storage Dam	ea.	1
Trunk Main	Km	5.90
Treatment Plant	Ea.	1
Pumping Station	Ea.	2
Service Reservoir	Ea.	3
Reticulation Network (<150mm Dia.)	Km	119.20
Automated Meter Reading (as of 04/04/22)	Ea.	500

Table 3 - Summary of Parent Assets

6.2 Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Asset Type	Asset Subtype	Component	Theoretical Useful Life (years)
Water Passive Asset	Water Main	UPVC	Pipework	120
Water Passive Asset	Water Node	Sluice Valve	Sluice Valve	90
Water Passive Asset	Water Main	AC	Pipework	100
Water Passive Asset	Water Main	CICL	Pipework	140
Water Passive Asset	Water Main	Copper	Pipework	100
Water Passive Asset	Water Main	DICL	Pipework	140
Water Passive Asset	Water Main	FRC	Pipework	140
Water Passive Asset	Water Main	Gal	Pipework	100
Water Passive Asset	Water Main	GRP	Pipework	140
Water Passive Asset	Water Main	MSCL	Pipework	140
Water Passive Asset	Water Main	PE	Pipework	100
Water Passive Asset	Water Meters and Services	Water Meter	Water Meter	100
Water Passive Asset	Water Meters and Services	Water Service	Water Service	100
Water Passive Asset	Water Node	Air Valve	Air Valve	90
Water Passive Asset	Water Node	Altitude Valve	Altitude Valve	90

Asset Class	Asset Type	Asset Subtype	Component	Theoretical Useful Life (years)
Water Passive Asset	Water Node	Backflow Prevention	Backflow Prevention	90
Water Passive Asset	Water Node	Ball Valve	Ball Valve	90
Water Passive Asset	Water Node	Blank Cap	Blank Cap	90
Water Passive Asset	Water Node	Butterfly Valve	Butterfly Valve	90
Water Passive Asset	Water Node	Gate Valve	Gate Valve	90
Water Passive Asset	Water Node	Hydrant	Hydrant	90
Water Passive Asset	Water Node	Non-Return Valve	Non-Return Valve	90
Water Passive Asset	Water Node	Other	Other	90
Water Passive Asset	Water Node	Reducer	Reducer	90
Water Passive Asset	Water Node	RPZ	RPZ	90
Water Passive Asset	Water Node	Scour Valve	Scour Valve	90
Water Passive Asset	Water Node	Stop Valve	Stop Valve	90

Table 4 – Useful Life

6.3 Classification

The classifications of Water Assets aim to reflect optimum asset management practices for the capital, maintenance and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Asset Description	Classification
Service Reservoir	1
Trunk Main	1
Bores	2
Treatment Plant	2
Reticulation Network (<150mm Dia.)	2
Storage Dam	3
Pumping Station	4
Water Services and Water metres	5

Table 5 – Service Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the water assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders - ongoing; and
- Analysis of community service requests and customer request management.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kpi's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
State Government	• Regulation of LWU provision of Water and Sewage services		Review of Best Practice and DWQM documentation Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 – Stakeholder Management

8. Strategic and Corporate Goals

The AMP provides clear guidelines for the effective management of the assets owned and operated by Council. Local authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of service. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by Asset Management Plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources, farm water resources, and the mitigation of erosion and land degradation. Preservation of watercourse environments.

Legislation	Requirement
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of Safe Drinking Water
NSW Public Health Regulation 2012	Part 5 Safety measures for drinking water
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.

Table 7 - Legislative Requirements

10. Levels of Service

10.1 Introduction

Council is responsible for providing a safe, reliable, and cost-effective drinking water supply, which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the potable water supply is acceptable to the wider community.

Levels of service indicators have been developed for the services provided by the Water Supply Network based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured provide the detail on how we determine whether we are delivering what the community are asking for.

Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it. The CSP Ref column identifies the Community Strategic Plan objective that is being supported by the asset group and the LOS defined.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted drinking water supply
Function	Ensure the water service meets Department of Health approval conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate water services to meet user requirements
Function/Accessibility	Ensure water services are available to all occupied properties
Cost Effectiveness	Provide Water services in a cost-effective manner
Safety	Effectiveness of WH & S programs and Work Method Statements/Standard Operating Procedures

Table 8 - Community Service Target

Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance.

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

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

Technical Levels of Service
Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes to best achieve the desired community outcomes.

Technical levels of service measures align with annual budgets covering:

- **Operations**
  The regular activities to provide services such as administration, electricity.

- **Maintenance**
  The activities necessary to retain an asset as near as practicable to its original condition (e.g. cleaning, pump maintenance, breaks etc.)

- **Acquisition**
  The activities required to ensure that new assets and acquired assets are to the required service level.

- **Expansion**
  The activities and assets required to ensure that the needs are met by future developments

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally (e.g. pipeline replacement, reservoir external coating and bore casing etc.).

- **Upgrade**
  The activities to provide a higher level of service (e.g. increase reservoir capacity, replacing a pipeline with a larger size etc.) or a new service that did not exist previously (e.g. network extension or new reservoir.)

All Levels of Service will be examined as part of the 2021-22 IWCM Strategy Review which includes all Community and Technical Levels of Service. Stakeholder Engagement, Community Engagement and good Stakeholder Management Practices are crucial to quality Asset Management.

Levels of Criticality Service and Intervention should also align with Councils Business Continuity Plans and all NSW Legislative Disaster Management Plans and Practice.

10.2 Intervention Levels

Council maintains a Condition Assessment Manual outlining the frequency of inspection and condition rating, used for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal/maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA Condition Assessment & Asset Performance Guidelines Practice Note 7 Water Supply & Sewerage and advanced asset management practices as outlined in the International Infrastructure Management Manual (IIMM). Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level'. That is, the condition at which the community has determined renewal is required based on the LOS analysis. Typically, assets are renewed between condition 3 and 4, ranging from fair to poor depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Intervention Levels

Each asset's condition is kept in the Water Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel and overheads.

Some of the Operational services identified relevant to Water Services include:

- Asset Inspections
- Land Rates
- Electrical Supply
- Engineering Management
- Telemetry and Other System Monitoring
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations and delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council is currently developing a condition inspection programme that is to be completed by an independent consultant or internal specialised staff. This condition inspection programme includes the above ground infrastructure on all of Councils Water and Sewerage Asset sites.

Below Ground Assets: Due to the sensitivity of contamination of the Water Supply Service and available technologies Council does not inspect the reticulation network. The current cost of inspections for underground assets is not affordable.

Some of the condition inspections are summarised below:

Inspection	Frequency
Condition Assessments of all Above Ground External Assets	Four Yearly
Visual Inspection of all Above Ground External Assets	Annually
Hydrants	Annually
Valves	Biannually
Safety Inspections	Annually
Condition inspection of failed asset (i.e. water main break) incl. CR	Per occurrence

Table 10 - Summary of inspections

All Assets are reviewed and recommended by external consultants during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Mains Cleaning	Annually	Periodic / Preventative
Hydrant Maintenance	Annually	Periodic
Dead End Hydrant Flushing	Annually	Preventative
Pumps Maintenance	Biannually	Periodic / Preventative
Reservoir Cleaning	Biannually	Periodic
Stop Valve and Hydrant Rotation	Annually	Periodic
Bore Maintenance	Annually	Periodic

Table 11 - Planned Maintenance Activities

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replace sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

The adjustment of LOS is for a critical service as potable water supply is only undertaken after consultation with the community, ensuring it is still within statutory regulations and health guidelines.

Figure 3 outlines the increase using a four-year average to project the following ten years.

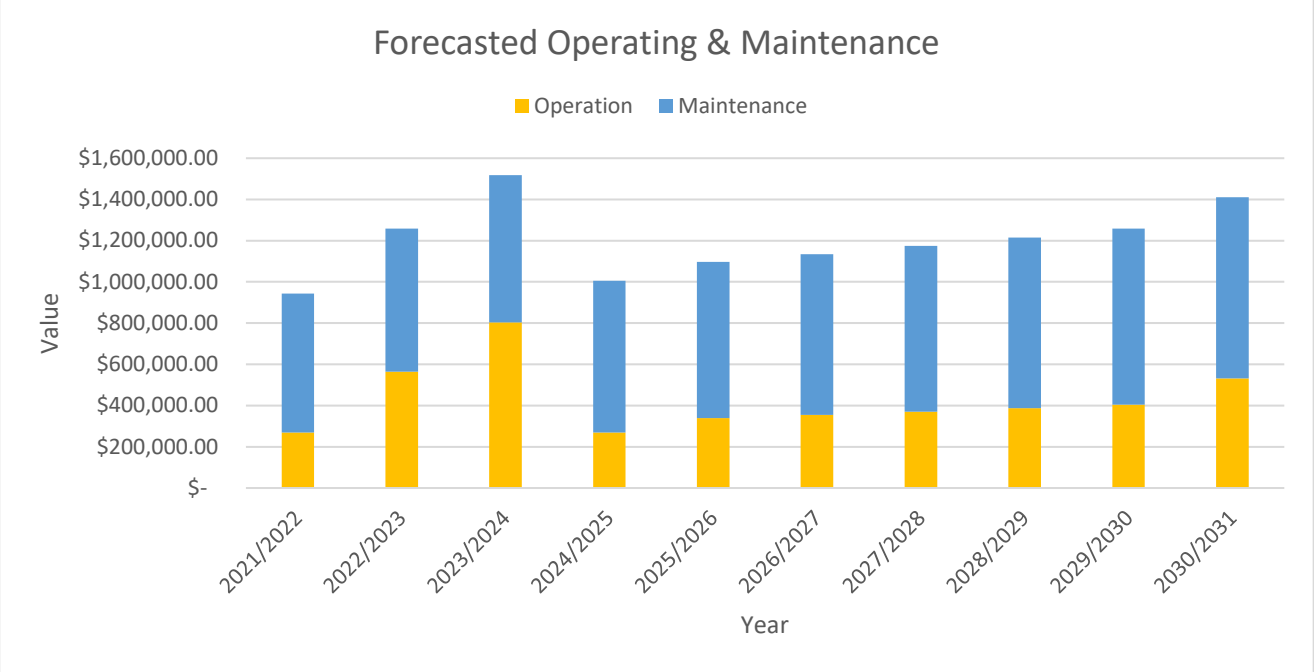

Figure 3 - Projected Operations & Maintenance Expenditure

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1 New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

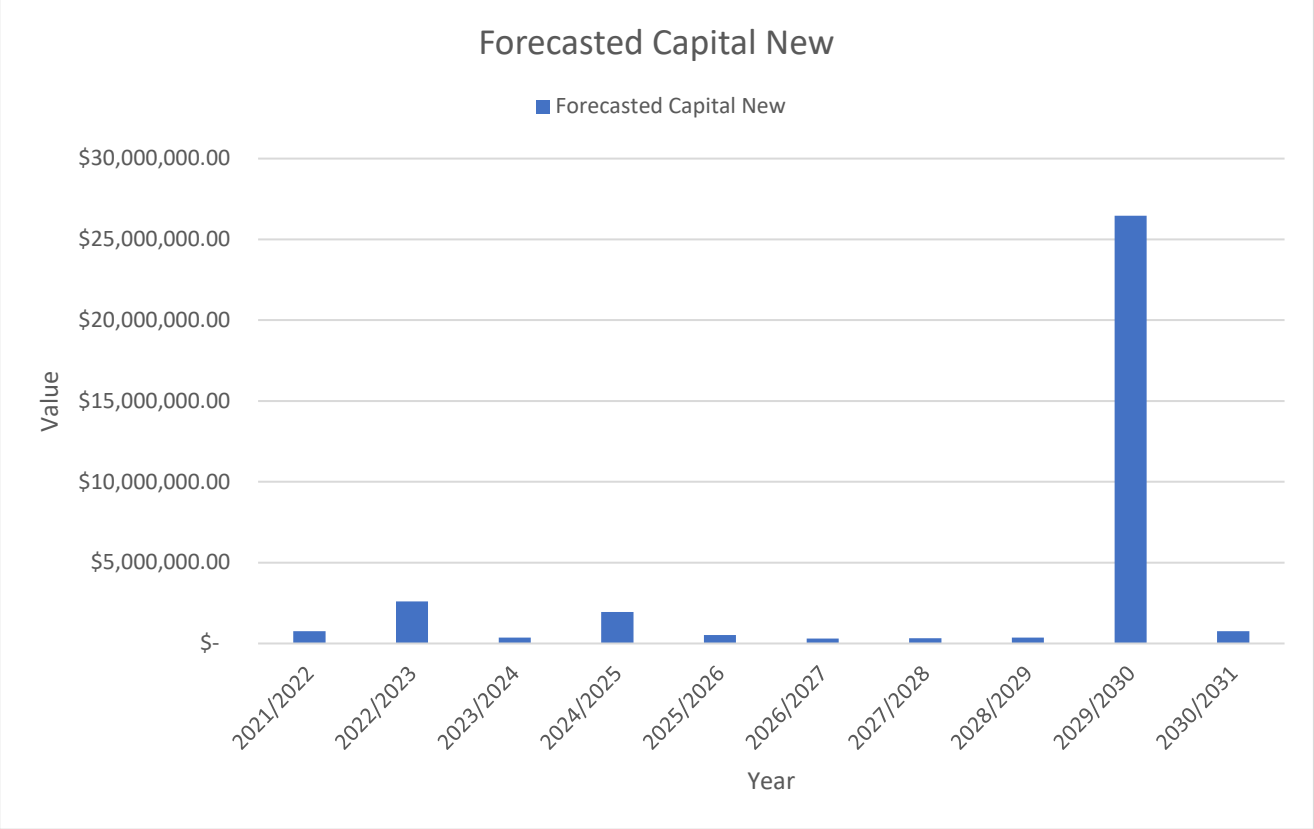

Figure 4 – Ten (10) Year Capital Works Value

A detailed table of the ten-year works program can be seen in Appendix A.

The total value of new / upgrade / expansion of infrastructure is $34,458,673.

13.2 Capital Renewal Asset

Renewal expenditure is major work that restores, rehabilitates or replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.

It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g., resurfacing or Resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the 'Expenditure Template".

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3 Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Water Services Association of Australia (WSAA)
- Relevant Australian Standards

13.4 Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $4,923,889 on renewals over the next ten years.

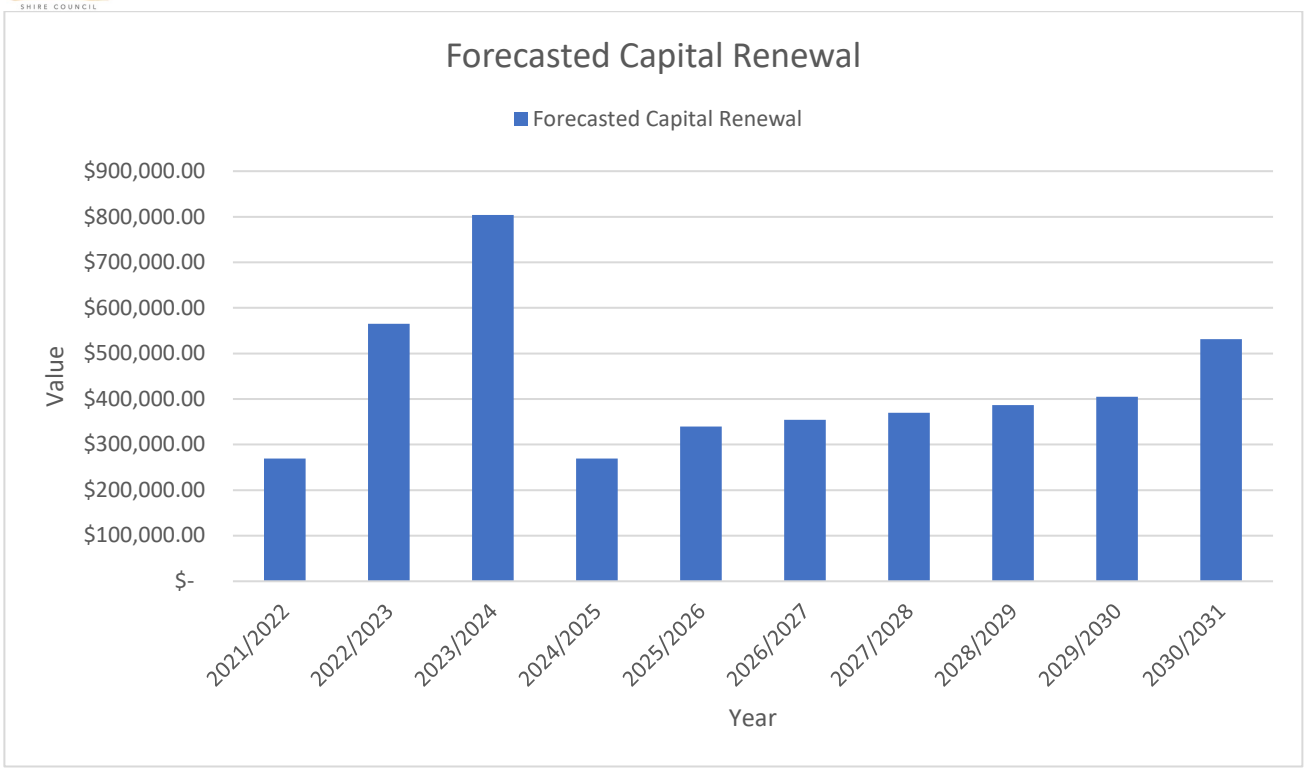

Figure 5 - Proposed Renewal Allocations Delivery Program

13.5 Disposal Plan

The Disposal lifecycle activity identifies any significant costs associated with the decommissioning of an asset when it is removed from service.

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition, or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System, analysis of usage and a cost analysis indicates that the community doesn't require the asset any further. These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can, therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets that are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for the disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory or environmental needs.

14.1 Demand Drivers

Demand drivers can be broadly divided into two categories:

- Demand for increased levels of service such as improvements to network capacity; and
- Increased costs from creation or acquisition of new assets.

14.2 Demand forecast

ABS census data statements regarding demand within the shire can be seen below:

2001:

On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:

In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:

In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:

In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 - Australian Bureau of Statistics Data

The census study area, for Narromine Shire, did not change during each period.

14.2.1 Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to the locality of Dubbo, land availability and the flood levee. The water assets in these private developments will be handed over to Narromine Shire Council to maintain and manage increasing current total water asset value and maintenance costs over the period of this AMP. It should be noted that investigations are still required to determine the feasibility of future developments.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.2.2 Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

The water assets in any future private developments will be handed over to Narromine Shire Council to maintain and manage increasing current total water asset value and maintenance costs over the period of this Asset Management Plan, which is expected to be no greater than 1%.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – total data for dwellings in Township of Trangie

The study area significantly increased changed between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.2.3 Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Tomingley's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3 Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the water related assets indicates that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of water assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this AMP.

14.4 Demand Impacts on Water Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in water usage through the existing water network. Council must ensure they understand their water network capacity requirements to allow for increased volumes.

14.5 Demand Management

14.5.1 Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its water assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major water assets.

14.5.2 Asset Programs to Meet Demands

Asset programs to meet future demands within existing water networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine. A clear understanding of the existing network capacity will be essential in this process.

14.5.3 Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing water network when considering demand increase due to infill development.

- Effective control over the water assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.

- Review the history of development applications within existing suburbs of Narromine to predict infill development and the increased demand more accurately to the existing water networks. Ensure existing water network restrictions do not prevent land development and economic growth in Narromine.

15. Financial Plan

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

15.1 Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

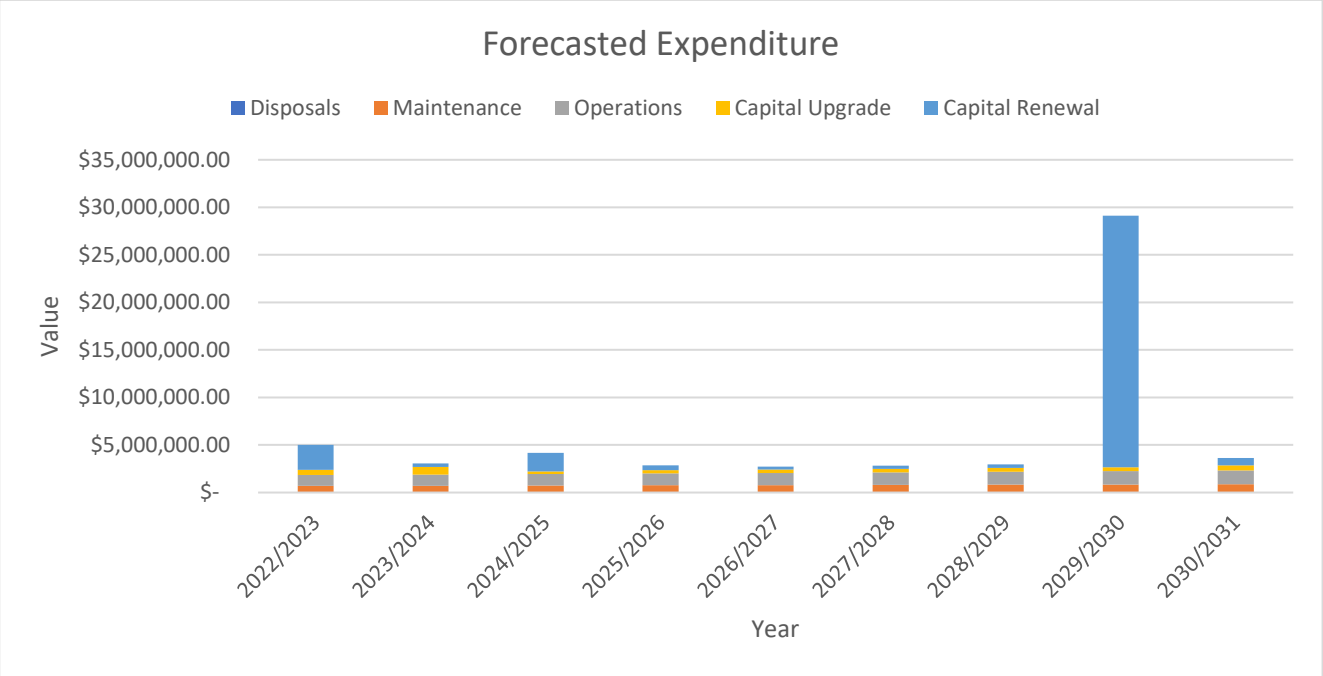

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2 Financial Sustainability in Service Delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3 Long Term Life Cycle Cost

Life cycle costs (or whole of life costs) are the average cost estimates that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or reductions in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Funding Strategy

Projected expenditure identified is to be funded from future operating and capital budgets from reserves and grant funding. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Key Performance Measures (KPM's) have been extracted from the Strategic Business Plan (2013) which considers the statutory regulated quality of potable water and agreed customer service levels. Although some key performance measures are operational, they are still classified as an Asset delivery.

DESCRIPTION	UNIT	TARGET
AVAILABILITY OF SUPPLY		
Quantity Available		
• **Domestic Peak Day**	L/tenement/ day	<5,000
• **Domestic Annual**	kL/tenement / year	< 215
• **Total Annual Average Consumption**	ML/yr	<660
• **Total Peak Daily Consumption**	L/tenement/day	<5,000
Water for Fire Fighting:		
• **Availability from hydrants at minimum flow rates at determined by LG Regulations and NSW Fire and Rescue and relevant Australian Standards and Plumbing Code**	% Urban Area Serviced	100%
Pressure:		
• **Minimum pressure at the water meter when delivering 0.1L/sec**	Meters Head	> 12 for 90% of Properties
Consumption Restrictions in Droughts:		
• **Long run proportion of time with water restrictions applied**	%	<5%
• **Average frequency of restriction events**		<1 event per 10 years
• **Supply capacity during of normal worst recorded drought demand**	% of Normal Demand	90%
Water Quality (Potable Water)		
Compliance with 2011NHMRC & NRMMC Australian Drinking Water Quality Guidelines		
Physical parameters	**%**	100
Chemical parameters	%	100
Faecal coliforms	%	100

Microbiological Parameters:		
• **E-coliforms**	Mean CFU/100m1	0
• **Sampling frequency**	Samples/wk./ zone	1
Physical-chemical Parameters:		
• **pH**	Unit	6.5 — 8.5
• **Colour**	HU	<15
• **Turbidity**	NTU	<5
• **Fluoride**	mg/L	<1.5
• **Free available chlorine (WTP)**	mg/L	4.1
• **Free available chlorine (Reticulation)**	mg/L	0.2 — 4.1
• **Iron**	mg/L	<0.3
• **Manganese**	mg/L	<0.5
RESPONSE TIME TO CUSTOMER COMPLAINTS OF SUPPLY FAILURE		
1. Priority 1: failure to maintain continuity or quality of supply to a large number of customers or to a critical use at a critical time		
All Customers:		
• **During working hours**	Minutes	60
• **Out of working hours**	Minutes	120
2. Priority 2: failure to maintain continuity or quality to a critical use at a non-critical time		
All Customers:		
• **During working hours**	Minutes	180
• **Out of working hours**	Minutes	240
3. Priority 3: failure to maintain continuity or quality of supply to a single customer		
All Customers:	Working Days	1

4. Priority 4: a minor problem or complaint that can be dealt with at a mutually convenient time		
All Customers:	Working Days	14
Catastrophe		
		Immediate Action
CUSTOMER COMPLAINTS & GENERAL INQUIRIES		
i.e. complaints other than a supply failure		
• **Written complaints or enquiries: 95% response time**	Working Days	10
• **Personal complaints or enquiries: 95% response time**	Working Days	1
SPECIAL CUSTOMERS		
• **Specific service levels and associated charges will be negotiated with customers on an individual basis.**		

Table 16 - Performance Measures

Annual reporting on these KPMs are reflective in the Drinking Water Management System Annual Report. This outlines Council's Drinking Water Management System implementation, outcomes and drinking water performance for each financial year. This document is an NSW requirement.

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification, elimination and/or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1 Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2 Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Konect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work and valuation;
- Valuation and depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and;
- Producing work order.

18.3 Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its primary GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4 Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5 Workforce Planning and Training

Council currently employs trained operators in Water Asset Class as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy and is in progress of developing a position / skills matrix that is to be employed within its operations.

18.6 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan.
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services
- Telemetry Data is primarily used for measuring the operational performance of the Asset and ensuring that the infrastructure is delivering the performance requirements of the customer.
- Operational data in association with the Key Performance Measures
- Customer Request Management vs Operational delivery time

In addition to the Asset Management Strategy, Table 17 includes improvements to the management and planning of Water assets.

18.7 Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plan is categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within3 the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Water Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2021/22

Table 17 - Asset Management Improvement Plan – Water

19.1 Monitoring and Review Procedures

This asset management plan will be reviewed annually during budget preparation and will be amended to recognise any material changes in levels of service and/or resources available to provide those services as a result of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

Planning.nsw.gov.au. 2022. *Projections*. [online] Available at: <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Projections> [Accessed 28 April 2022].

21. Appendix A: Ten Year Capital Works Program

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE RENEWAL										
Water Network - Capital Program - Replacement / Rehabilitation	190,550	196,267	202,155	208,219	214,466	220,900	227,527	234,352	241,383	248,625
Automated Meter Reading - Capital Program - Replacement Program						59,703	61,494	63,339	65,239	67,196
Pumps - Capital Program - Renewal / Rehabilitation	26,151	28,767	31,643	34,808	38,288	42,117	46,329	50,962	56,058	61,664
Valves - Capital Program - Renewal / Rehabilitation	19,613	21,574	23,732	26,105	28,715	31,587	34,746	38,220	42,042	46,246
Bores - Narromine - Capital Program - Narromine										40,317
Bores - Narromine - Capital Program - Trangie	33,000									

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Potable Water Reservoir - Trangie - Renewal / Rehabilitation		318,270	546,364							
Telemetry - Capital Program - Renewal / Rehab					57,964					67,196
NEW, ACQUISITION AND/OR UPGRADE										
Major										
Water Treatment Plant - Narromine - New									19,571,598	
Reservoir and Rising Main - Narromine - New									6,523,866	
Pressure Management - Narromine - Booster - North		636,540								
Pressure Management - Narromine - Booster - South	500,000									
River Offtake - Narromine		1,591,350		1,688,263						

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Trunk Main & Standpipe - Trangie - Harris Street - Upgrade	66,000									
Minor										
Water Quality Monitoring System	22,000									
Telemetry		37,132								
Bore Flow Recorders		96,945								
Minor Capital Works Program	18,128	19,941	21,935	24,128	26,541	29,195	32,115	35,326	38,859	42,745
Backflow Prevention Devices - Capital Program		32,782		34,778		36,896		39,143		41,527
Major Under bore			163,909							
Growth										
Automated Meter Reading - Capital Program - Installation Program	152,408	167,649	184,414	202,855	223,141	245,455	270,001	297,001	326,701	359,371
Trunk Main & Standpipe - Trangie - Harris Street - Upgrade					69,556					80,635

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Water Quality Monitoring System - Trangie - Upgrade					34,778					40,317
Bore - Trangie - Flow Recorder		26,523					30,747			
Network Reticulation - Pipeline Mitchell Highway - Narromine - Under bore					173,891					201,587

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Sewer
(AMP2)

Contents

1. Executive Summary

Council provides sewerage services across the Narromine and Trangie communities through the sewerage collection network. Tomingley does not have a sewerage service and consists of localised septic tanks. The sewerage network had a fair value of $29,522,503 on the 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy

The Integrated Water Cycle Management (IWCM) Plan is currently being developed and this Asset Management Plan will be updated after completion of the IWCM, which will involve stakeholder consultation and detailed financial analyses.

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the sewerage assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan;
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan;
- Ensures the management of sewer infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 6.31% of these assets are Sewerage assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2. Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff – Asset Management Working Group, etc.

1.3. Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4. Sewerage Services

Narromine Shire Council supplies sewerage services to the township of Narromine and Trangie only.

The supply of sustainable sewerage services is critical to community and environmental health. It is critical that systems do not deteriorate to a level where community or environmental health is at risk or compromised.

In summary, the sewerage collection network comprises of the following major assets:

- Sewer Trunk Mains;
- Sewer Collection Mains;
- Sewer Manholes
- Sewer Rising Mains;
- Pump stations; and
- Treatment Plants.

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Sewer trunk mains	Km	3,317	17
Sewer collection mains	Km	41,120	20
Sewer rising mains	Km	4,531	22
Sewer pump stations	Ea.	14	5
Sewer manholes	Ea.	620	35
Sewer Treatment plants	Ea.	2	35

Table 1 – Breakdown of Major Assets

While a number of assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.5. Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable sewerage services to its customers and environment and to meet legislative requirements

2. Operate, maintain, renew and the upgrade of:
- Sewer Trunk Mains;
- Sewer Collection Mains;
- Sewer Manholes
- Sewer Rising Mains;
- Pump stations; and
- Treatment Plants.

to meet service levels set by Council and to meet statutory requirements and;

3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable sewerage business.

It should be appreciated that Council may not have sufficient funds in the Sewer Reserve to provide some services to the desired service levels (technical or community expectations).

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

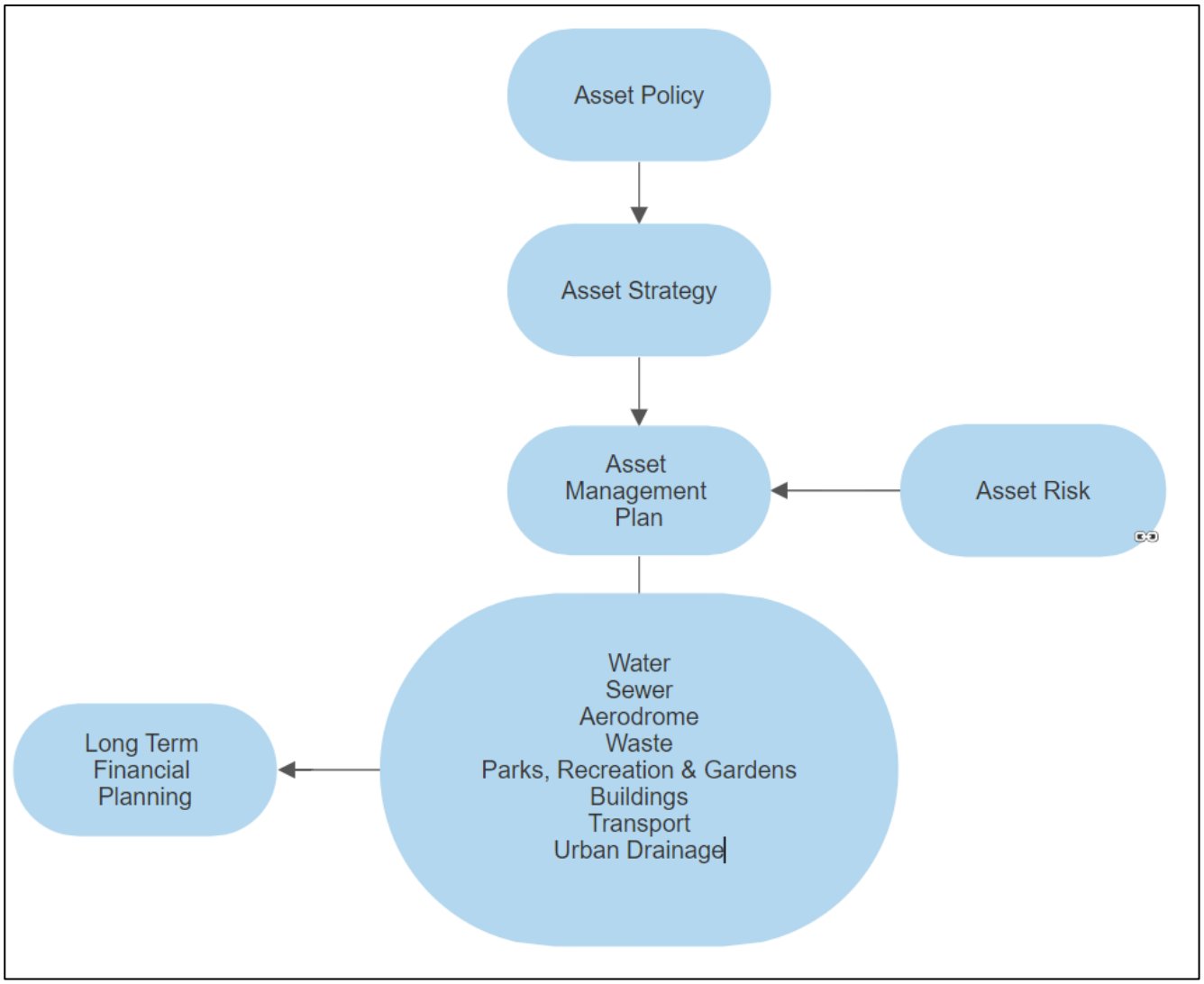

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2, based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Sewer assets have been condition rated externally during a revaluation in 2017, and are currently being updated in 2022.

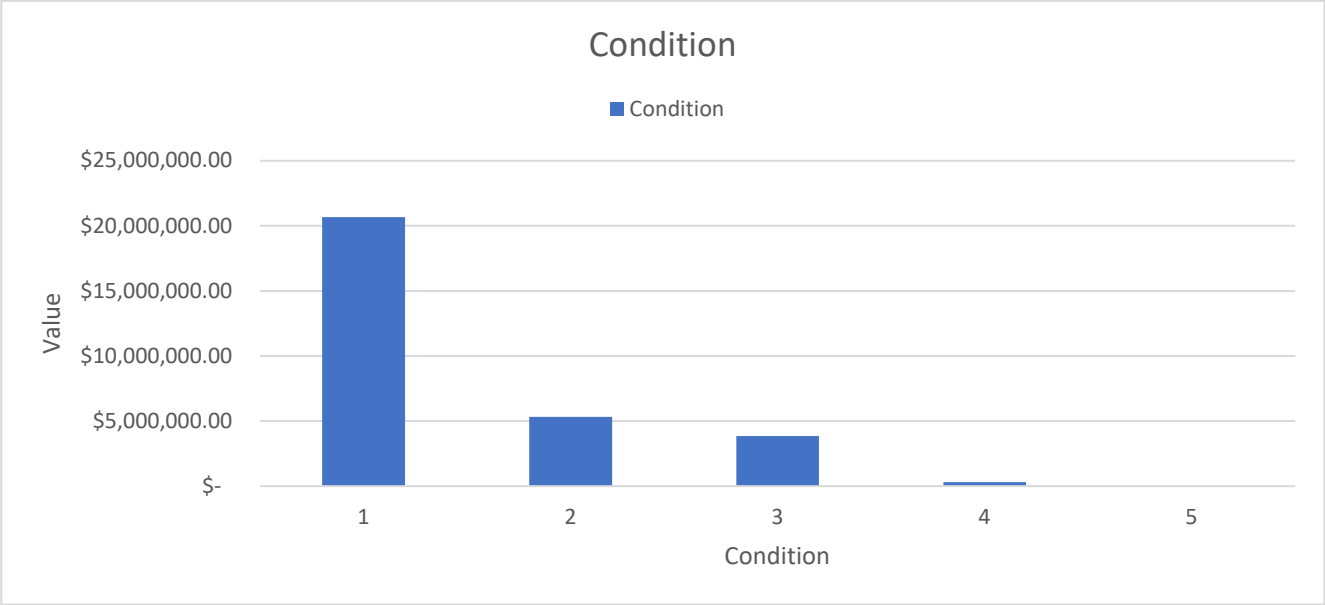

Figure 2 - Current condition of assets – Value based

3.2. Other Criteria

The process of managing our sewer assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition information of assets.

4. Future Planning for Sewer Assets

Table 16 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

4.1 Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Water and Sewerage Strategic Business Plan	Gives details and supporting information for Council's Community Strategic Plan, Delivery Program and Operational Plan and Budget.
Demand Management Plan (Narromine & Trangie)	Council is responsible for the water supply reticulation, sewerage and stormwater management services within the Narromine Local Government Area (LGA). As a local water utility (LWU), Council aims to be consistent with the NSW Government DPI Water, Best Practice Management of Water Supply and Sewerage Guidelines (DWE, 2007). This Demand Management Plan addresses one of the six "best practice" criteria set out by the guidelines by recommending an appropriate demand management strategy for implementation across Council's water supply systems.
Australis Asset Advisory Report Valuation Report	2017 Revaluation of all Water and Sewer Assets
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition

Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the communities of Narromine and Trangie with sewer systems that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in the appendix. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Sewer trunk mains	Km	3,317	17
Sewer collection mains	Km	41,120	20
Sewer rising mains	Km	4,531	22
Sewer pump stations	Ea.	10	5
Sewer manholes	Ea.	620	35
Sewer Treatment plants	Ea.	2	35

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Asset Type	Asset Subtype	Component	Theoretical Useful Life (years)
Sewer Passive Asset	Gravity Main	UPVC	Pipework	120
Sewer Passive Asset	Manhole	1050	Structure	85
Sewer Passive Asset	Rising Main	DICL	Pipework	140
Sewer Passive Asset	Sewer Point	Air Valve	Air Valve	70
Sewer Passive Asset	Gravity Main	AC	Pipework	85
Sewer Passive Asset	Gravity Main	CICL	Pipework	140
Sewer Passive Asset	Gravity Main	DICL	Pipework	140
Sewer Passive Asset	Gravity Main	MSCL	Pipework	140
Sewer Passive Asset	Gravity Main	PE	Pipework	100
Sewer Passive Asset	Gravity Main	RCP	Pipework	85
Sewer Passive Asset	Gravity Main	VC	Pipework	120
Sewer Passive Asset	Manhole	1200	Structure	85

Sewer Passive Asset	Manhole	1500	Structure	85
Sewer Passive Asset	Manhole	900	Structure	85
Sewer Passive Asset	Rising Main	AC	Pipework	85
Sewer Passive Asset	Rising Main	CICL	Pipework	140
Sewer Passive Asset	Rising Main	GRP	Pipework	140
Sewer Passive Asset	Rising Main	MSCL	Pipework	140
Sewer Passive Asset	Rising Main	MS	Pipework	140
Sewer Passive Asset	Rising Main	PE	Pipework	100
Sewer Passive Asset	Rising Main	UPVC	Pipework	120
Sewer Passive Asset	Sewer Point	Inspection Riser	Inspection Riser	85
Sewer Passive Asset	Sewer Point	Manhole Circular - Concrete - Precast	Manhole Circular - Concrete - Precast	100
Sewer Passive Asset	Sewer Point	Scour Valve	Scour Valve	70
Sewer Passive Asset	Sewer Point	Stop Valve	Stop Valve	70
Sewer Passive Asset	Sewer Point	Storage Tank - AC	Storage Tank - AC	70

Table 4 – Useful Life

6.3. Classification

The classifications of Sewer Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Asset Description	Classification
Sewer Trunk Mains	1
Sewer Rising Mains	1
Pump stations	1
Treatment Plants	2
Sewer Collection Mains	3
Sewer Manholes	4

Table 5 - Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the sewerage assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kpi's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
State Government	• Regulation of LWU provision of Water and Sewage services		Review of Best Practice and DWQM documentation Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 - Stakeholder Management

8. Strategic and Corporate Goals

The AMP provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.

Table 7 - Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective sewerage system which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the sewerage systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Sewerage Network based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Council's current service targets are in Table 8; Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted sewerage services
Function	Ensure the sewerage service meets Department of Primary Industries – Water and EPA conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate sewerage services to meet user requirements
Function/Accessibility	Ensure sewerage services are available to all occupied properties
Cost Effectiveness	Provide Sewerage services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as electricity costs, inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition (e.g. unblock sewer choke, pump maintenance, STP maintenance).

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally (e.g. frequency and cost of road sewer relining, pipeline replacement and pump replacement).

- **Upgrade**
  The activities to provide a higher level of service (e.g. increasing pump output, treatment plant capacity etc.) or a new service that did not exist previously (e.g. network extension etc.).

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level'. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Intervention Levels

Each assets condition is kept in the Sewer Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational Services identified relevant to this plan include:

- Asset Inspections;
- Land Rates;
- Electrical Supply;
- Engineering Management;
- Telemetry & Other System Monitoring;
- Insurances;
- Customer Request Management; and
- Emergency Management;

Asset Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations & delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.
Above Ground Assets: Council currently is developing a condition inspection programme that is to be completed by an independent consultant or internal specialised staff. This condition inspection programme includes the above ground infrastructure on all of Councils Water and Sewerage Asset sites.

Below Ground Assets: Council has an ongoing program of CCTV inspections and reporting on the condition of its underground sewerage network. As a result, the past 4 years Narromine Shire has re-lined all category 5 and 4 rated lines found thus far. Some category 3 lines and one category 2 line has also been done where it is of operational and financial expedience to do so.

Inspection	Frequency
Condition Assessments of all Above Ground Assets	Four Yearly
Pipe Network	Ten Yearly
Sewer Pump Stations	Annually
Manhole	Ten Yearly
Plant Inspections	Annually
Safety Inspections	Annually
Condition inspection of failed asset (i.e. sewer choke) incl. CR	Per occurrence

Table 10 -Summary of Inspections

All condition assets are reviewed and recommended during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Pump Maintenance	Biannually	Periodic
Aeration Line Clean	Annually	Periodic
Tank Backwash	Annually	Periodic

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to a sewerage system that has sufficient capacity for current and projected growth requirements.
- Sewage treatment and effluent disposal is managed in accordance with the principles of ecologically sustainable development.
- The operation of the sewage treatment system results in high quality services to customers.
- All trade waste dischargers in the Shire are licensed with a charging structure that reflects costs of treatment and encourages onsite treatment of trade waste.

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

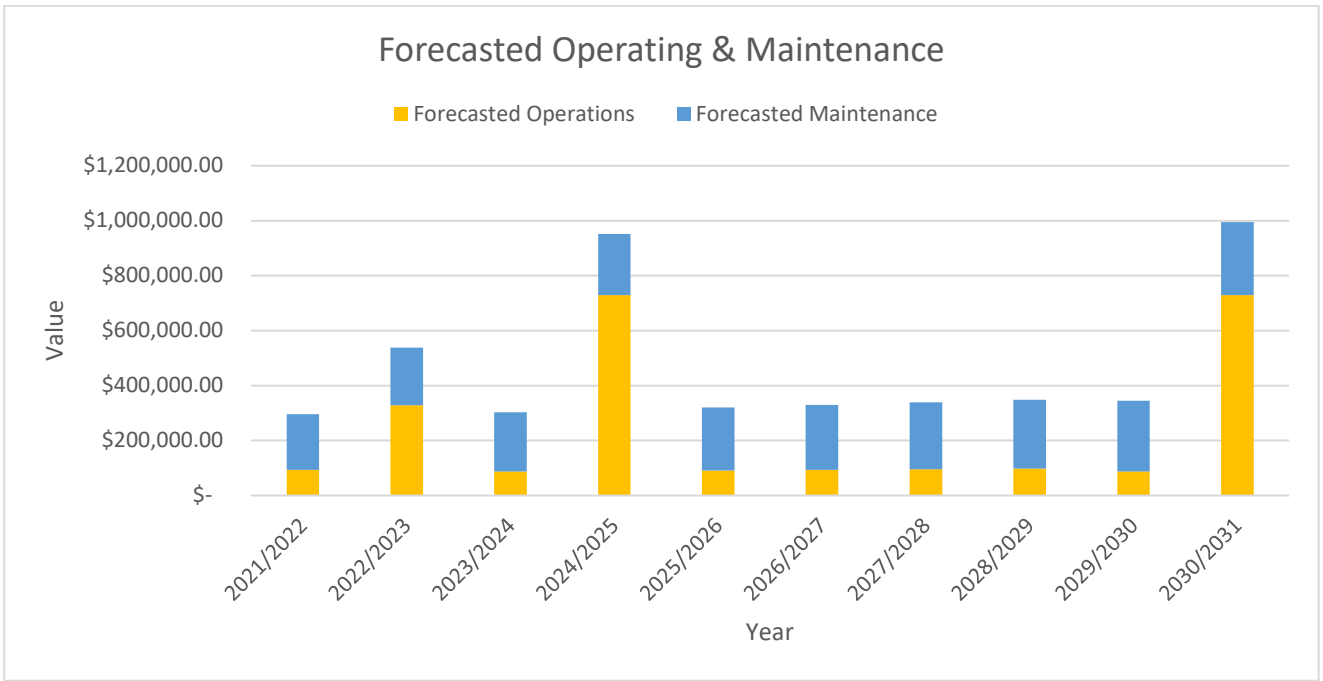

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

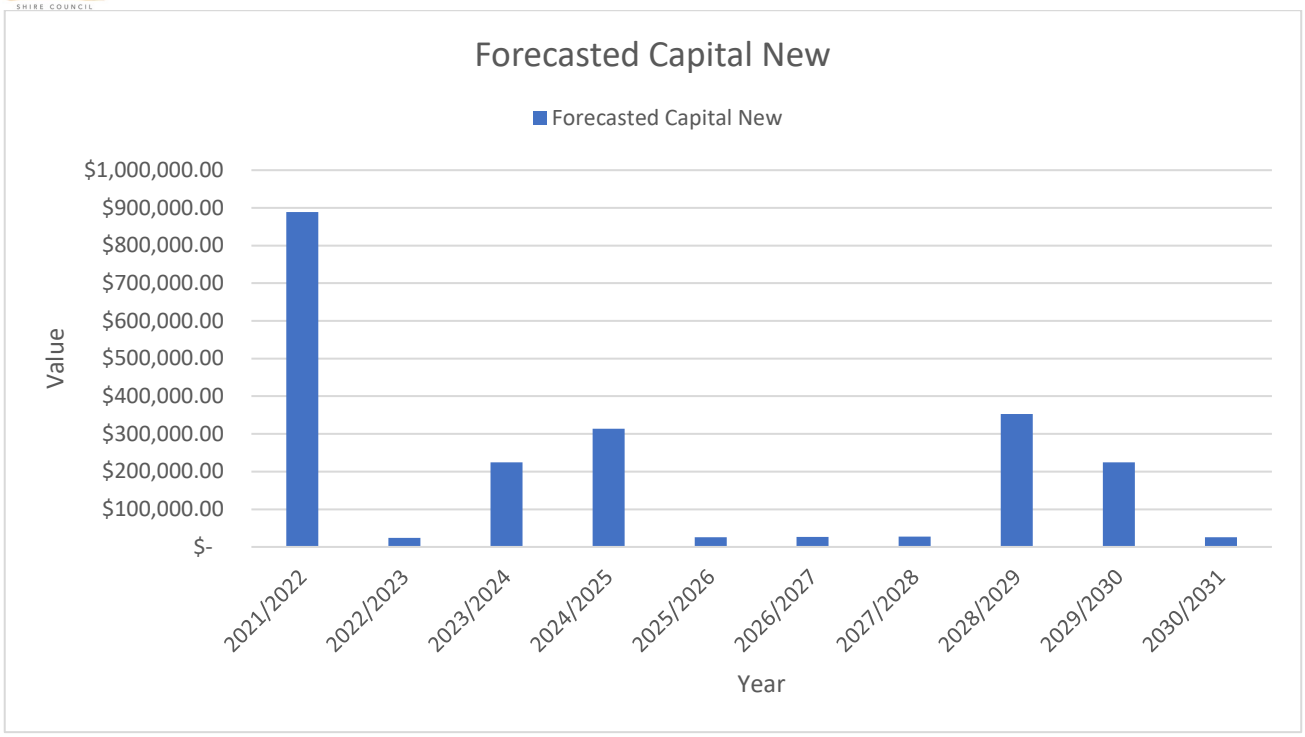

Figure 4 – Ten (10) Year Capital Works for Upgrades

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion. It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life.

As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g., resurfacing or Resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the ‘Expenditure Template”.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the ‘Expenditure template’.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Water Services Association of Australia (WSAA)
- Relevant Australian Standards

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $2,435,845 on renewals over the next ten years.

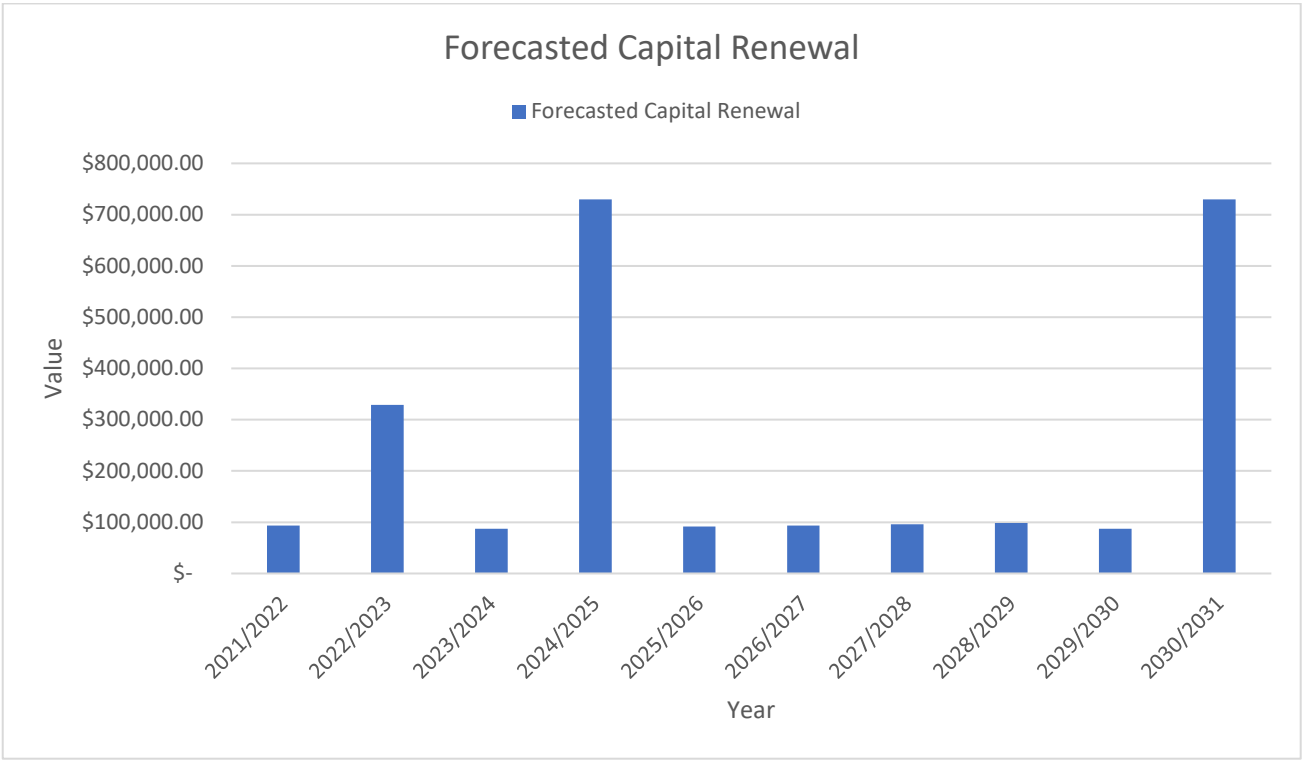

Figure 5 - Proposed Renewal Allocations Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for the disposal of assets in this Asset Class.

14. Future Demands

ABS census data statements regarding demand within the shire can be seen below:

2001:

On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:

In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:

In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:

In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area for Narromine Shire did not change during each period.

14.1. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee. The sewer assets in these private developments will be handed over to Narromine Shire Council to maintain and manage increasing current total water asset value and maintenance costs over the period of this AMP. It should be noted that investigations are still required to determine the feasibility of future developments.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – total data for dwellings in Township of Narromine

The study area significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.2. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

The sewer assets in any future private developments will be handed over to Narromine Shire Council to maintain and manage increasing current total water asset value and maintenance costs over the period of this AMP, which is expected to be no greater than 1%.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Tomingley's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – total data for dwellings in Township of Tomingley

The study area significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the sewer related assets indicates that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of sewer assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this AMP.

14.5. Demand Impacts on Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in usage through the existing network. Council must ensure they understand their network capacity requirements to allow for increased volumes.

14.6. Demand Management Plan

14.6.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major assets.

14.6.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine. A clear understanding of the existing network capacity will be essential in this process.

14.6.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing network when considering demand increase due to infill development.
- Effective control over the assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.
- Review the history of development applications within existing suburbs of Narromine to more accurately predict infill development and the increased demand to the existing networks. Ensure existing network restrictions do not prevent land development and economic growth in Narromine.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

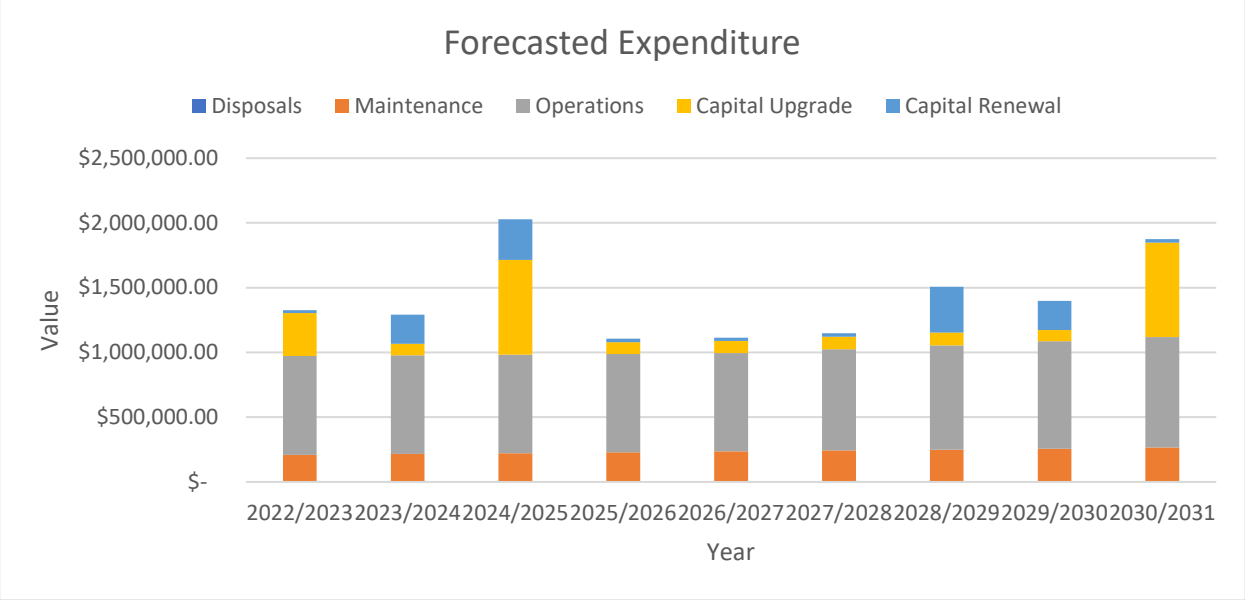

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial Sustainability in Service Delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on;

Funding Strategy

Projected expenditure identified is to be funded from future operating and capital budgets from reserves and grant funding. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) based on condition has been developed by considering both environmental, health and safety, and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in the CSP that support the outcomes identified in Levels of Service section of this document. Table 15 also aligns with Councils Strategic Business Management Plan.

DESCRIPTION	UNIT	LEVEL OF SERVICE TARGET
AVAILIBILITY OF SERVICE:		
• **Connections for Domestic Sewage**		Available to all houses, units of business in the defined service area
• **Trade waste acceptance**		In accordance with approval conditions for each discharge
UNCONTROLLED, UNEXPECTED:		
• **Public Property - sensitive areas e.g. main street, hospitals or schools**	Frequency	< 2 per years
• **Public Property - other areas**	Frequency	< 5 per 10km main per year
95th PERCENTILE REPONSE TIMES TO SYSTEM FAULTS *Defined as the elapsed time to once staff have been informed of failure.*		
Priority 1: (failure to contain sewage within the sewer system or any problem affecting a critical user at a critical time)		
Response time:		
• **Working hours**	Minutes	60
• **After Hours**	Minutes	180
Priority 2: Minor failure to contain sewage within the sewer system or any problem affecting a critical user at a non-critical time		
Response time:		
• **Working hours**	Minutes	180
• **After Hours**	Minutes	240
Priority 3: Minor failure to contain sewage affecting a single property or as bad odours		
Response time	minutes	180
RESPONSE TIMES TO CUSTOMER COMPLAINTS AND INQUIRIES OF A GENERAL NATURE *Defined as a minor operational problem, complaint or enquiry that can be addressed at a mutually convenient time.*		
• **Time to advise customer of intended action.**	Working Days	Respond to 95% of written complaints within 10 working days
	Working Days	Respond to 95% of written complaints within 2 working days
ODOURS / VECTORS		
• **Number of incidents annually that result in complaints**		<2
IMPACT OF STP ON SURROUNDING RESIDENTS		
• **Max noise level above background noise**	dB	<5

Table 16 - Performance Measures

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed Asset Monitoring.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to be following the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and 'Konect Manager' with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and
- Producing work orders.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council currently employs trained operators in operations for Sewerage Asset Class as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents; and
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan.
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services
- Telemetry Data primarily used for measuring the operational performance of the Asset and ensuring that the infrastructure is delivering the performance requirements of the customer.

In addition to the Asset Management Strategy, Table 16 includes improvements to the management and planning of assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plant is categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Sewer Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2021/22

Table 17 - Asset Management Improvements – Sewer

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and will be amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

Planning.nsw.gov.au. 2022. *Projections*. [online] Available at: <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Projections> [Accessed 28 April 2022].

1. Appendix A: Ten Year Capital Works Program

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE RENEWAL										
Sewer Main Replacement Program				640,042						640,042
Pump Replacement Program - Narromine	59,434	60,920	62,443	64,004	65,284	66,916	68,589	70,304	62,443	64,004
Pump Replacements - Trangie	23,774	24,368	24,977	25,601	26,114	26,767	27,436	28,122	24,977	25,602
iPad Replacements & Real ware Training	10,000									
Narromine - Resurfacing/Relining of Manholes		243,680								
NEW, ACQUISITION AND / OR UPGRADES										
Major										
Telemetry upgrade Narromine Sewer System x 7 Stations	120,000									
Telemetry upgrade (Narromine and Trangie)			74,932						74,932	
Trangie Treatment Plant Upgrade	350,000									
Narromine STW Head of Works Design	100,000									
Narromine - New PS and Rising Mains			124,886						124,886	
Narromine STP Remediation of old STP Site	100,000									

Pump Station 3 Critical Upgrade - Trangie	195,000									
Minor										
Minor capital works	23,774	24,368	24,977	25,601	26,114	26,767	27,436	28,122	24,977	25,602
CCTV Investigations				288,149				324,315		

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Waste
(AMP3)

Contents

1. Executive Summary

Council's intention is to provide the Shire with waste services through infrastructure that is serviced and maintained to a level that reflects the communities' expectations and operates in a manner that is both functional and cost effective. The waste services had a fair value of approximately $1,344,460 on the 30th June 2021 (excl. plant).

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service program scheduling, funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy
- Narromine Shire Council – Waste Management Strategy May 2020

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the waste assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan.
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan.
- Ensures the management of waste infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan.
- 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, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 0.26% of these assets are Waste Assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2. Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community (Ratepayers, Businesses etc);
- Developers;
- Regulators;
- Councillors; and
- Council Staff – Asset Management Working Group, etc.

1.3. Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4. Waste Supplies

Narromine Shire Council supplies waste services to the township of Narromine, Trangie and Tomingley.

The supply of waste services is critical to community and environmental health. It is critical that systems do not deteriorate to a level where community or environmental health is at risk or compromised.

1.5. Waste Services

In summary, the Waste Services comprises of the following major assets:

- Buildings;
- Internal Roads;
- Security devices such as fencing, CCTV;
- Access Management;
- Signage; and
- Plant & Equipment

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Buildings	Ea	6.0	30
Internal Roads	Km	1.10	10
Fencing	Km	1.80	10

Table 1 – Major Assets

While a number of assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.6. Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable waste services to its customers and environment and to meet legislative requirements

2. Operate, maintain, renew and the upgrade of:
   - Buildings;
   - Internal Roads;
   - Security devices such as fencing, CCTV;
   - Access Management;
   - Signage; and
   - Plant & Equipment.

   to meet service levels set by Council and to meet statutory requirements and;

3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable waste business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations)

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this plan framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

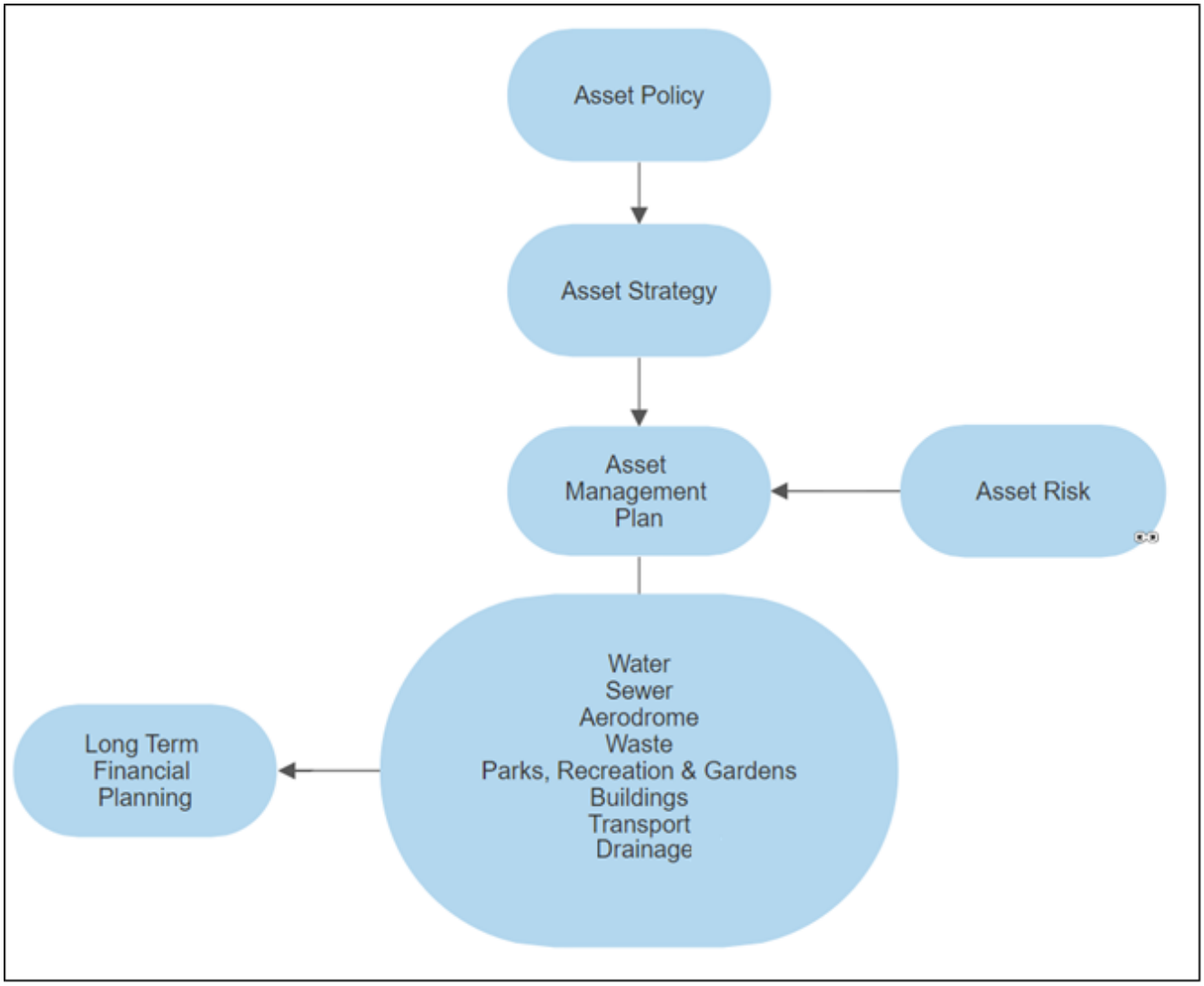

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Waste assets have been condition rated externally during a revaluation specifically to the Assets associated over various years.

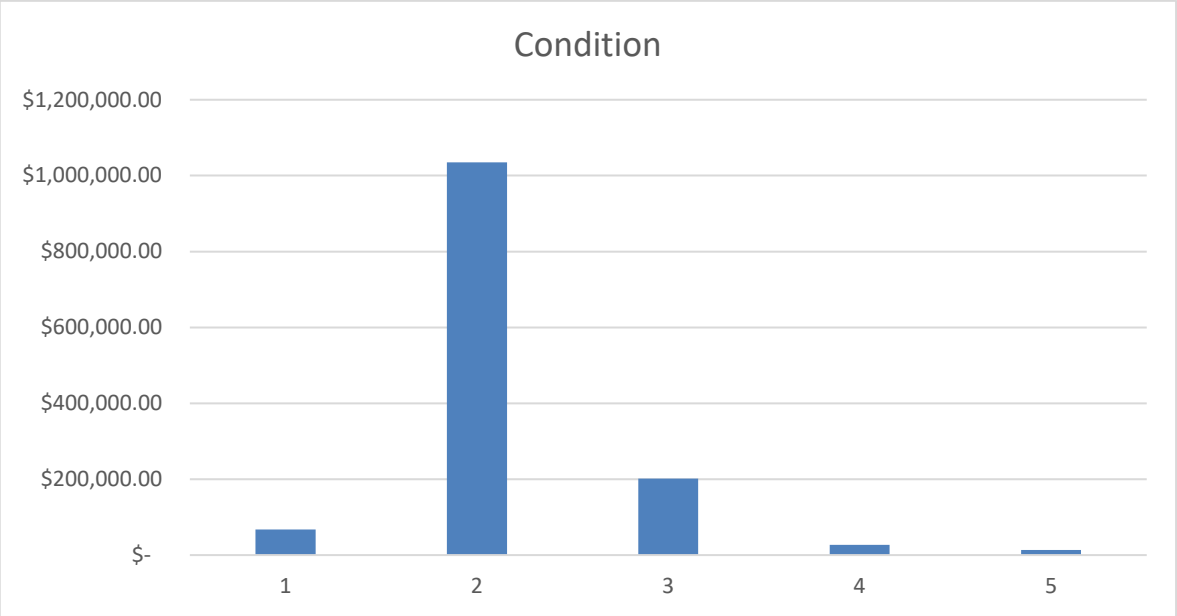

Figure 2 – Current condition of assets – Value based

3.2. Other Criteria

The process of managing our waste assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Waste Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy chapter 17 Asset Management Practices.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the communities of Narromine, Trangie and Tomingley with Waste Services that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in the appendix. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Buildings	Ea	6.0	30
Internal Roads	Km	1.10	10
Fencing	Km	1.80	10

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Component	Useful Life
Buildings	Sub-structure	50
Buildings	Super structure	50
Buildings	Finishes	15
Buildings	Fittings	10
Buildings	Services	25
Buildings	Finishes	9
Internal Road	Formation	100
Internal Road	Pavement	20
Internal Road	Wearing Surface	15
Fencing	External Chain Fence	50

Table 4 – Useful Life

6.3. Classification

The classifications of Waste Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Asset Description	Classification
Security	1
Buildings	1
Internal Roads	1
Signage	2
Litter Fences	3
Heavy Machinery	1
Medium Fleet	2
Light Vehicles	3
Small Equipment – High Risk	1
Small Equipment – Medium Risk	3
Small Equipment – Low Risk	5

Table 5 – Service Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the waste assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kpi's, ensures Council is	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
State Government	• Regulation of Waste Services		Review of Best Practice and DWQM documentation Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process	getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Team leader workshops Engineering and Assets team reviews

Table 6 -Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by Asset Management Plans for sustainable service delivery.
The Waste Avoidance and Resources Recovery Act 2001	This Act repeals and replaces the Waste Minimisation and Management Act 1995. It establishes a scheme to promote extended producer responsibility in place of industry waste reduction plans.
National Construction Code	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
The Protection of the Environment Operations (Waste) Regulation 2005	Establishes the EPA, the Board of the EPA, two community consultation forums, and the NSW Council on Environmental Education, and requires the EPA to make a report on the state of the environment every three years.
Local Government (General) Regulation 2021	Determines
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the State.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.

Table 7 - Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective Waste Services which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Waste Service systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Waste Services based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these Community Levels of Service (CLOS), Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Council's current service targets are in Table 8; Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Waste Services
Function	Ensure the Waste services meets Department of Health approval conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Waste services to meet user requirements
Function/Accessibility	Ensure Waste services are available to all occupied properties
Cost Effectiveness	Provide Waste services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as electricity costs, inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition.

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally.

- **Upgrade**
  The activities to provide a higher level of service (e.g. increased capacity of front end loader/compactor, upgraded capacity of land etc.) or a new service that did not exist previously (e.g. purchase of new land etc.).

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its ‘Intervention Level’. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Intervention Levels

Each assets condition is kept in the Waste Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified relevant to Building Services include:

- Asset Inspections;
- Land Rates;
- Electricity;
- Engineering Management;
- Telemetry & Other System Monitoring;
- Insurances;
- Customer Request Management; and
- Emergency Management.

Asset Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring, as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations & delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils Waste Assets such as internal road network, tip face, buildings etc. Any specialised condition rating requirements will be undertaken by a specialist.

Below Ground Assets: The condition inspections of underground Assets are not applicable to this Asset Management Plan, however, operationally Council monitors the existing waste deposits located underground .

Inspection	Frequency
Condition Assessments of all Above Ground Assets	Annually
Buildings	Annually
Road Network	Annually
Plant and Equipment	Daily
Security Fencing	Annually
Condition inspection of failed asset (i.e. road deformation) incl. CR	Per occurrence

Table 10 - Summary of inspections

All condition assets are reviewed and recommended by external parties during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism. Councils maintenance technical standard is to be undertaken in accordance with adopted operational NATSPEC documents.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive maintenance – condition monitoring activities used to predict failure
3. Preventive maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Road Maintenance Grade	Annually	Periodic
Pest Management	Annually	Periodic
Heavy Plant Maintenance	As per Vehicle Operations Manual	Preventative
Medium Vehicle Maintenance	As per Vehicle Operations Manual	Preventative
Light Vehicle Maintenance	As per Vehicle Operations Manual	Preventative

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to Waste Services that has sufficient capacity for current and projected growth requirements
- Waste Service disposal is managed in accordance with the principles of ecologically sustainable development
- The operation of the Waste Services results in high quality services to customers
- All recycled waste for distribution is undertaken in accordance with relevant environmental legislation

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

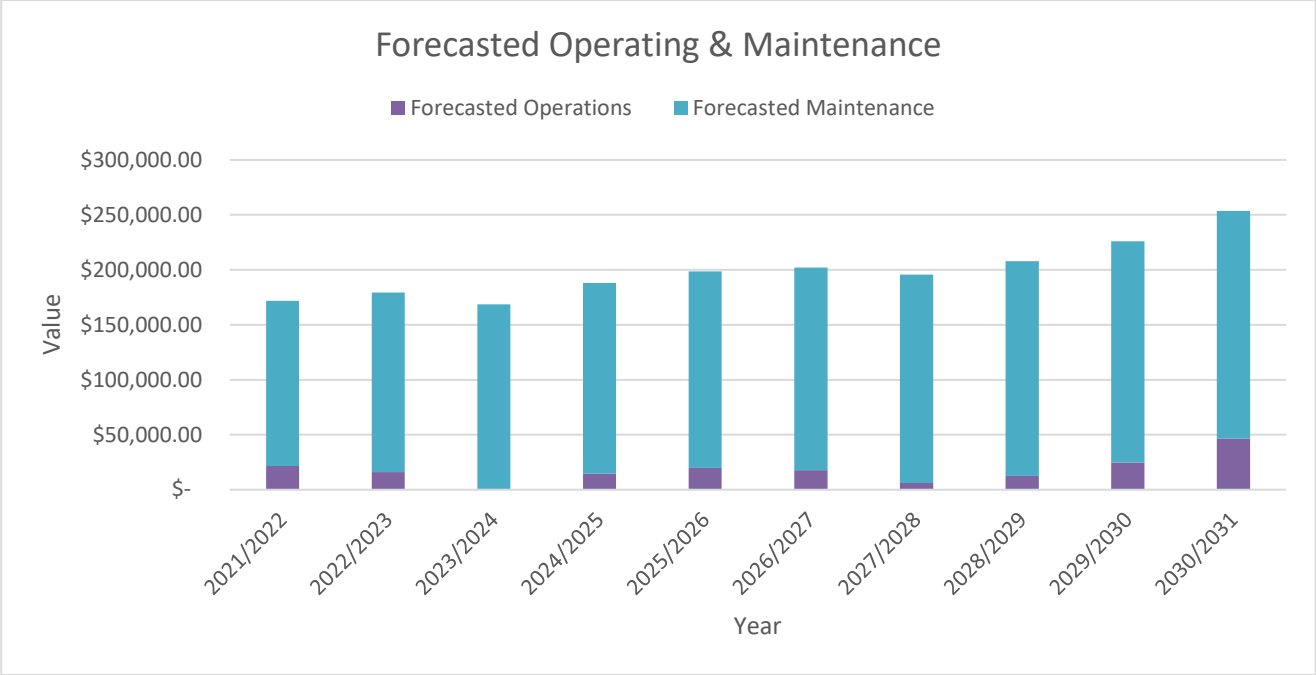

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

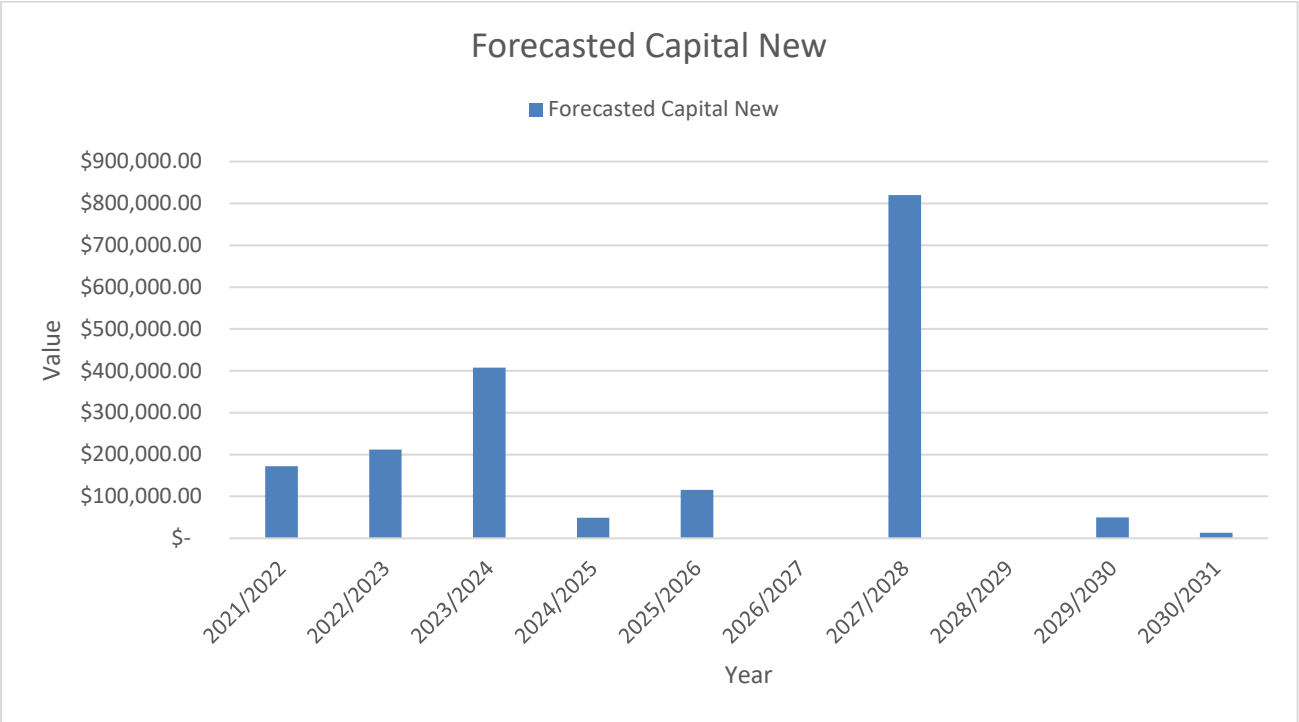

Figure 4 – Ten (10) Year Capital Works Program

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.

It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g., resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the 'Expenditure Template".

- Method 1 - uses asset register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 - uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 - uses a combination of average network renewals plus defect repairs in the renewal plan and defect repair plan worksheets on the 'expenditure template'.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Relevant EPA guidelines and Standards;
- Natspec Specifications; and
- Relevant Australian Standards.

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in figure 5.
- The projected capital renewal program is shown in appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $179,795 on renewals over the next ten years.

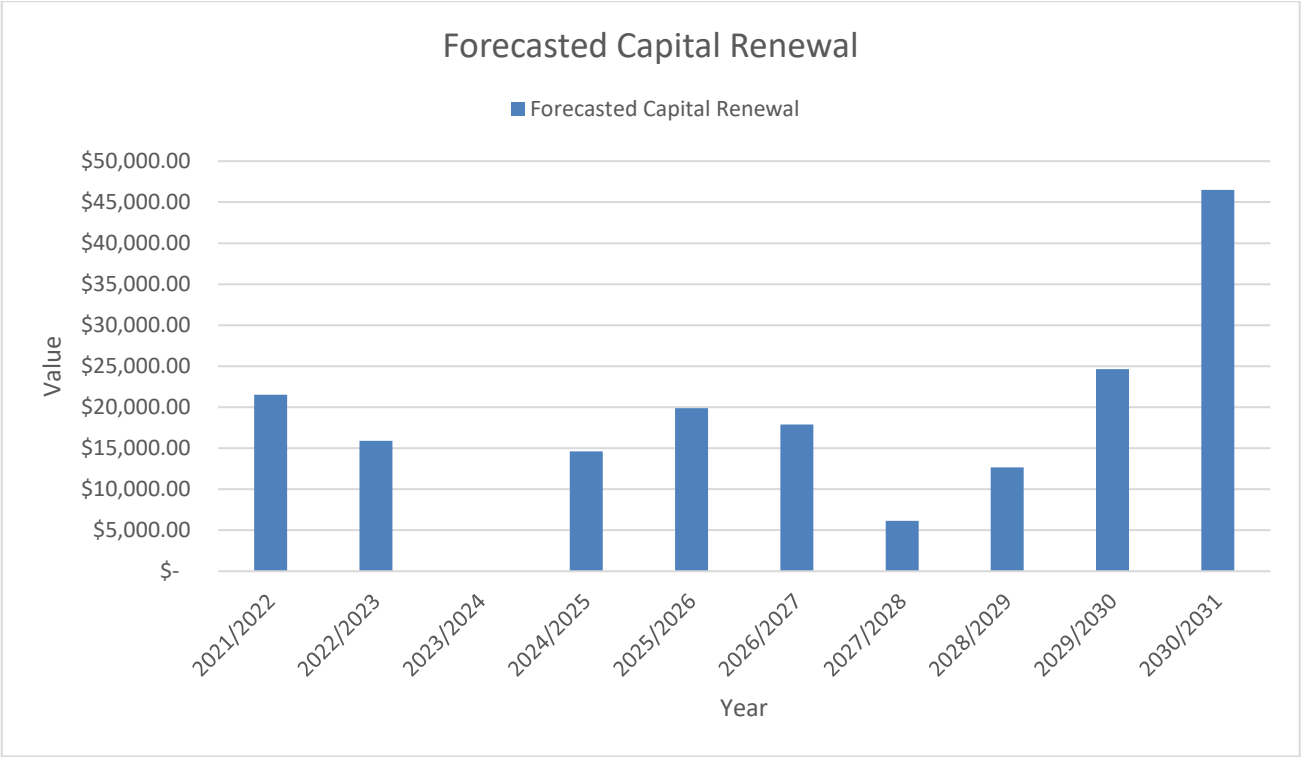

Figure 5 - Proposed Renewal Allocations Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

The Narromine Waste Management Strategy identified different disposal options regarding converting Waste Facilities to Transfer Stations. Council is in the process of reviewing and data collection regarding the feasibility of these options.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

Demand drivers can be broadly divided into two categories:

- Demand for increased levels of service such as improvements to network capacity; and;
- Increased costs from creation or acquisition of new assets.

14.2. Demand forecast

ABS census data statements regarding demand within the shire can be seen below:

2001:
On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area, for Narromine Shire, did not change during each period.

14.3. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee. The waste services in these private developments will be managed by Narromine Shire Council to maintain and manage increasing current total waste costs over the period of this AMP. It should be noted that investigations are still required to determine the feasibility of future developments.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	- 6.45%
Narromine	2016	2,040	+3.48%

Table 13 – Total data for dwellings in Township of Narromine

The study area significantly decreased changed between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

The waste services in any future private developments will be managed by Narromine Shire Council to maintain and manage increasing current total waste costs over the period of this Asset Management Plan, which is expected to be no greater than 1%.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.5. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Tomingley's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.6. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the waste related assets indicate that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of waste assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.7. Demand Impacts on Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in waste generation. Council must ensure they understand future generation and capacity requirements to allow for increased waste volumes.

14.8. Demand Management Plan

14.8.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its waste assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major waste assets.

14.8.2. Asset Programs to Meet Demands

Asset programs to meet future demands can only be conducted once studies are completed to plan and understand future urban infill within Narromine.

14.8.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing water network when considering demand increase due to infill development.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

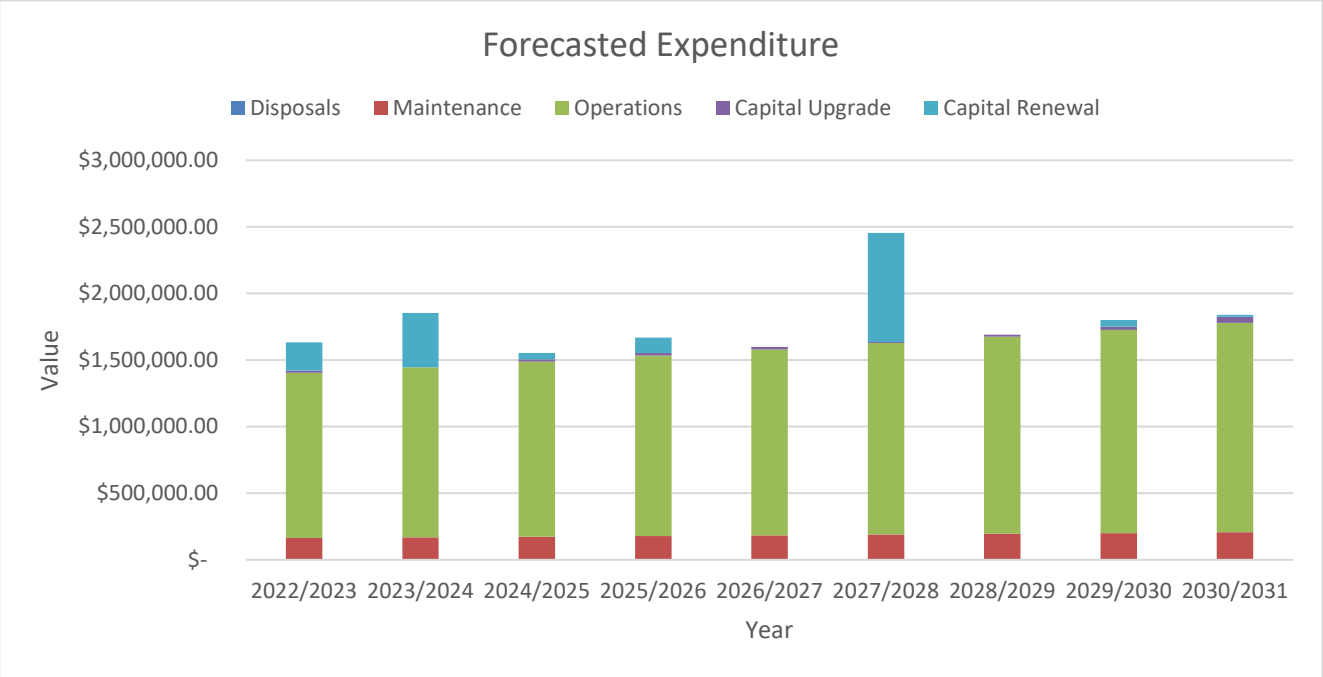

Figure 6 - Forecasted Expenditure

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Funding Strategy
Projected expenditure identified in Figure 6 is to be funded from future operating and capital budgets. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts
This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measure
Community Levels of Service							
Quality	Environmental / Health & Safety	Rubbish is collected without spillage or damage to property	Customer Service requests	<2 complaints per quarter	Satisfactory	Excellent to Good	TBD
Function	Health & Safety	Rubbish is collected to schedule	Customer requests relating to missed collection	Zero reported incidences	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Service is safe and free from hazards	Reported accidents	Zero reported accidents	Satisfactory	Excellent to Good	TBD
Technical Levels of Service							
Condition	Health & Safety	Machinery is reliable and well maintained	Machine availability	100% compliance with schedule	Satisfactory	Excellent to Good	TBD
Accessibility	Infrastructure	Provision of waste collection	Percentage of properties unable to be collected due to accessibility	99.9% compliance	Satisfactory	Excellent to Good	TBD
Cost Effectiveness	Operational	Provide service in cost effective manner	Budget compliance	Expenses within budget	Satisfactory	Excellent to Good	TBD

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measure
Safety	Health & Safety	Ensure facilities (Landfill) are safe	Regular safety audits carried out, action customer request within 5 working days	Safety inspections – Clear of contaminants, objects that could cause injury	Satisfactory	Excellent to Good	TBD

Table 16 - Performance Measures

Notes:

1. Rubbish collection is a contracted service therefore Performance Measures associated with the collection of rubbish should be referred to in the contractual documentation with the contractor
2. Income for recycled rubbish such as crushed concrete or scrap metals is to be added to this plan at a later date as outlined in the improvement plan

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to be in compliance with the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Konect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and
- Producing work order.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost and performance of each asset.

18.5. Workforce Planning and Training

Council currently employs trained operators in operations for Waste Asset Class as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents.
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan.
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services

In addition to the Asset Management Strategy, Table 17 includes improvements to the management and planning of waste assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plan will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Water Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GiS system	4	2023/24
17	Knowledge	Review Narromine Waste Strategy	1	2024/25

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process. The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

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Appendix A: Ten Year Capital Works Program

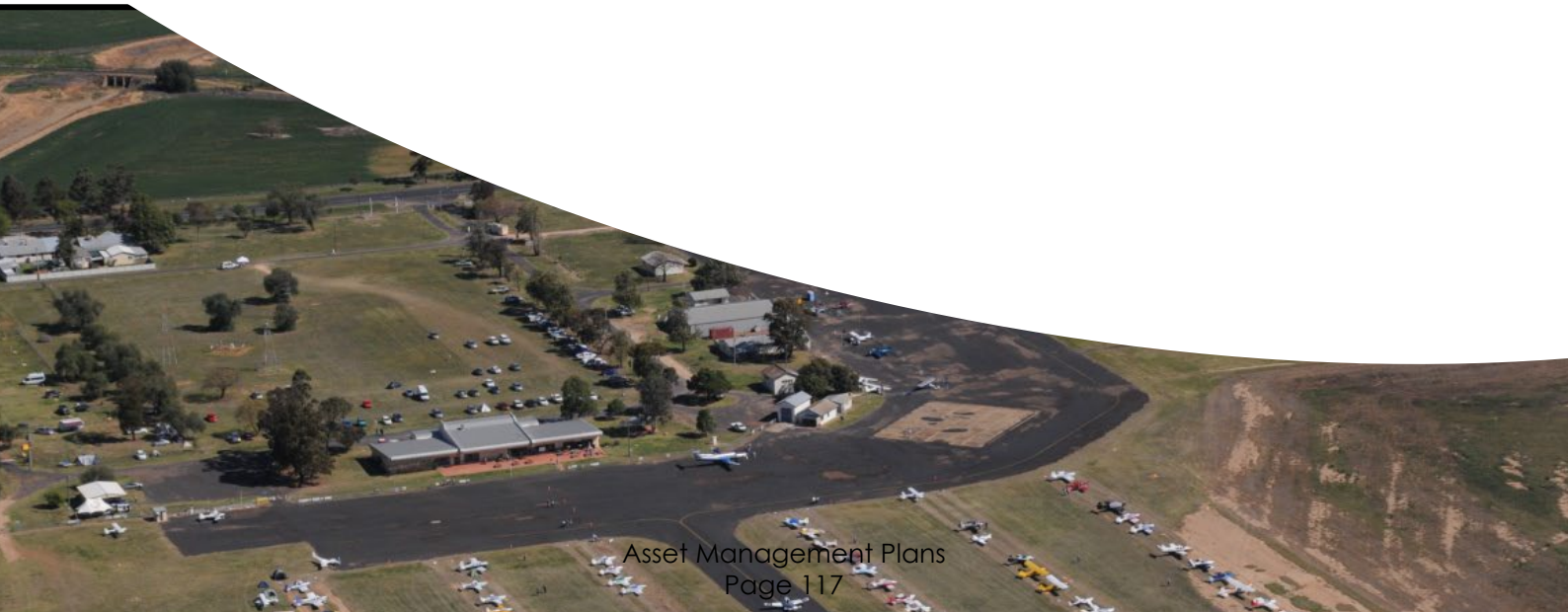
	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE CAPITAL										
Narromine										
35405 - Narromine Waste Depot Buildings - - General Capital Repairs		10,609		11,255		11,941		12,668		13,439
35384 - Narromine Waste Depot Road - Wearing Surface - Reseal	10,892								13,798	
35384 - Narromine Waste Depot Road - Pavement - Gravel Resheet	5,150					5,970				
35389 - Narromine Waste Depot Security - CCTV - Upgrade		5,305					6,149			
35389 - Narromine Waste Depot Security - Fencing - Upgrade										
Trangie										
35417 - Trangie Waste Depot Buildings - - Capital Repairs					14,100					16,346
35412 - Trangie Waste Depot Road - Pavement - Gravel Resheet	5,464								6,922	
35427 - Trangie Waste Depot Security - CCTV - Upgrade					5,796					6,720
35427 - Trangie Waste Depot Security - Fencing - Upgrade										
Emergency Shower/Eye Wash										
Tomingley										
35476 - Tomingley Waste Depot Road - Pavement - Gravel Resheet				3,377					3,914	
35479 - Tomingley Waste Depot Security - Fencing - Upgrade										9,980

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Emergency Shower/Eye Wash - Tomingley										
NEW, ACQUISITION AND/OR UPGRADE										
Fencing, lighting, security & hard stand for return and earn										
Skip Bin Purchase	12,360				13,911				15,657	
Office & Amenities			104,750							
Cyclic Signage Management		5,305								6,720
Fencing Night Soil Paddock			53,316							
Trash Screen Mobile Plant	19,518								24,725	
Shed Extension				47,450						
Hard Stand					101,593					
Irrigation Upgrade		39,094					45,321			
Fire Fighting Tanks incl. Pumps and Sprays		34,863								
Trees for Perimeter		68,959								
Slashing Attachment for Bobcat	7,725								9,786	
Truck Wash Road and Drainage Modifications	77,250									
Transfer Station Design	35,000									

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Transfer Station Rehabilitation							750,000			
Trangie										
Purchase Mobile Generator				1,688						
Irrigation Upgrade		21,218					24,597			
Trees for Perimeter		37,132								
Cyclic Signage Management		5,305								6,720
Transfer Station Design	20,600									
Transfer Station Rehabilitation			250,000							
Tomingley										

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Aerodrome
(AMP4)



Contents

1. Executive Summary

Council provides Aerodrome Infrastructure and Services in the township of Narromine through the Narromine Aerodrome. The Narromine Aerodrome had a fair value of $16,015,427 on the 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy

A Narromine Aerodrome Strategy has been adopted by Council, which has included stakeholder consultation.

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the aerodrome assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan;
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan;
- Ensures the management of aerodrome infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 1.11% of these assets are Aerodrome assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2 Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff – Asset Management Working Group, etc.

1.3 Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4 Aerodrome Services

Narromine Shire Council supplies Aerodrome infrastructure and services to the township of Narromine only.

Two major runways exist which cater for the adjacent Industrial and Residential Estate.

The local airstrip in Trangie was disposed of in 2021 as per Council resolution.

The supply of aerodrome services is critical to community. It is critical that systems do not deteriorate to a level where community users are at risk or compromised.

In summary, the Aerodrome Services comprise of the following major assets:

- Taxiways
- Aprons
- Runways
- Footpaths
- Furniture
- Navigation Aids
- Security Devices
- Buildings
- Plant & Equipment
- Water reticulation main

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Runway	km	3,108	7
Taxiway	km	1,935	27
Apron	m^2	29,515	40
Footpath	m	193	10
Buildings	ea.	13	20

Table 1 – Major Assets

While a number of assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.5 Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable aerodrome services to its customers and environment and to meet legislative requirements

2. Operate, maintain, renew and the upgrade of:

- Taxiways;
- Aprons;
- Runways;
- Footpaths;
- Furniture;
- Navigation Aids;
- Security Devices;
- Buildings; and
- Plant & Equipment,

to meet service levels set by Council and to meet statutory requirements.

3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations)

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

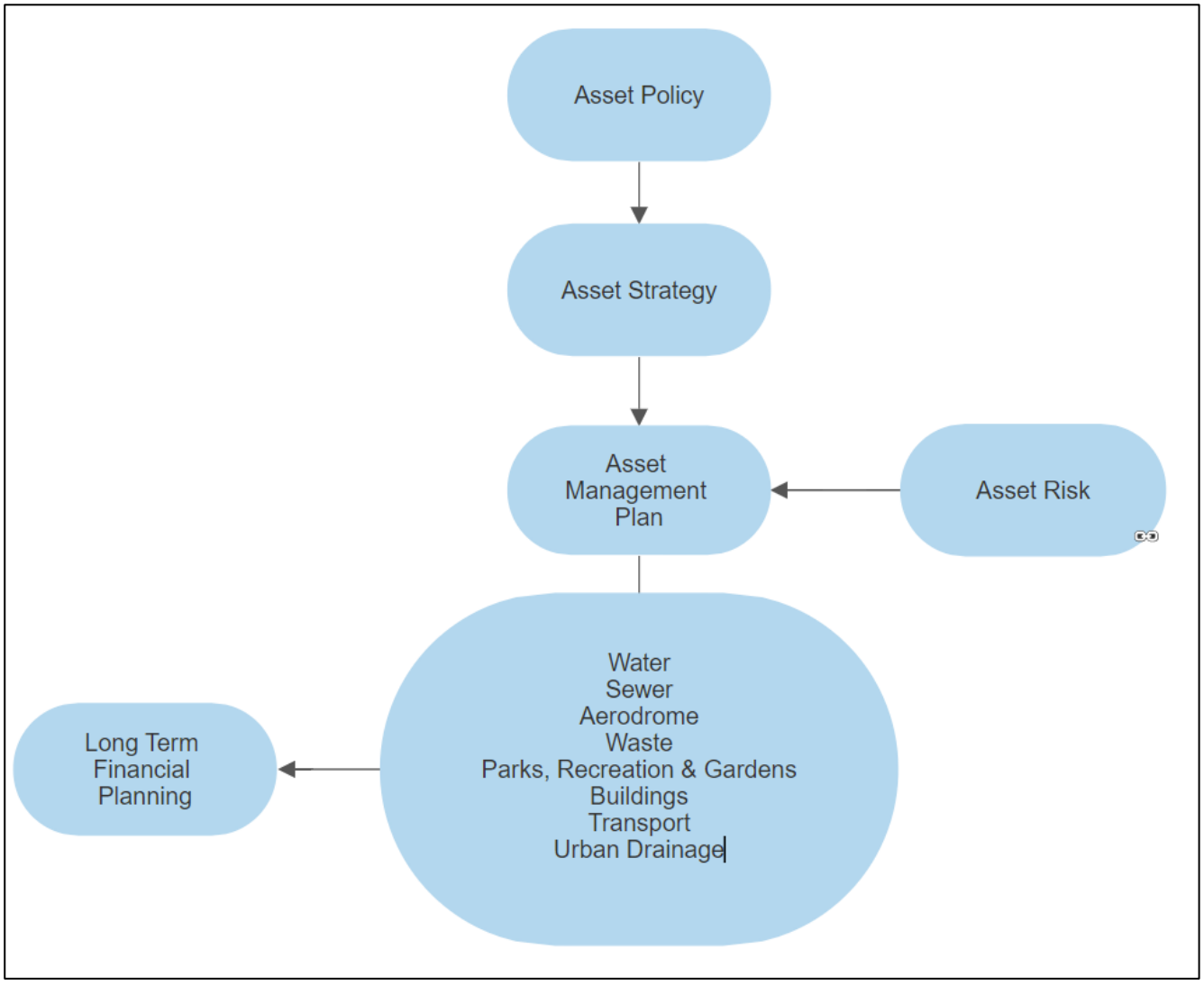


Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Aerodrome assets have been condition rated externally during a revaluation.

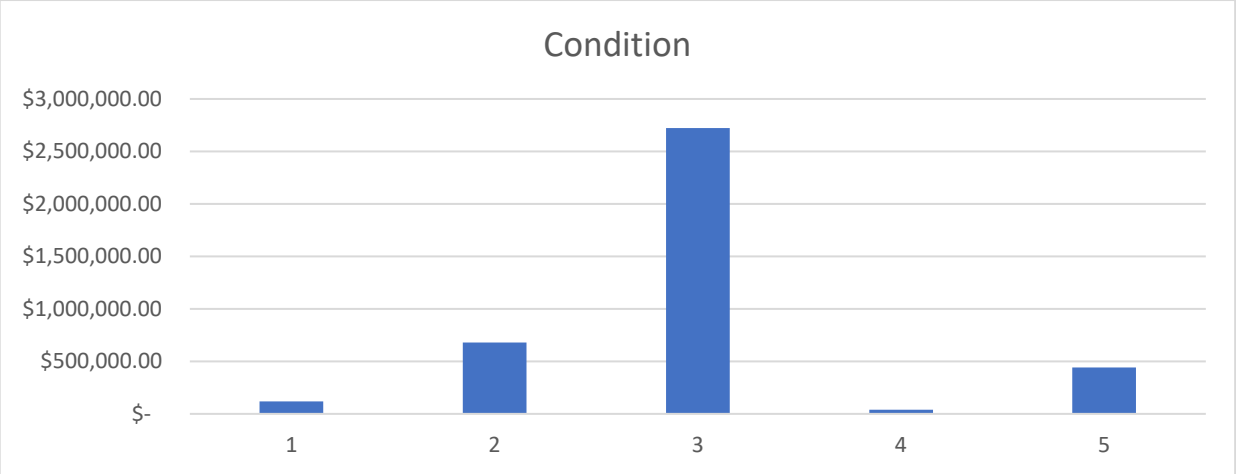


Figure 2 – Condition of our assets

3.2. Other Criteria

The process of managing our aerodrome assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Aerodrome Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

4.1 Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy chapter 17 Asset Management Practices.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition
Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the community of Narromine with Aerodrome Infrastructure and Services that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in the appendix. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Runway	km	3,108	7
Taxiway	km	1,935	27
Apron	m^2	29,515	40
Footpath	m	193	10
Buildings	ea.	13	20

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Asset Type	Asset Subtype	Useful Life Max
Aerodrome	Runway	Formation	100
Aerodrome	Runway	Pavement	50
Aerodrome	Runway	Wearing Surface	15
Aerodrome	Taxiway	Formation	100
Aerodrome	Taxiway	Pavement	50
Aerodrome	Taxiway	Wearing Surface	15
Aerodrome	Apron	Formation	100
Aerodrome	Apron	Pavement	50
Aerodrome	Apron	Wearing Surface	15
Aerodrome	Signage		10
Aerodrome	Navigations Aids		10
Aerodrome	Lighting System		30

Table 4 – Useful Life

6.3 Classification

The classifications of Aerodrome Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Asset Description	Classification
Runway	1
Taxiway	2
Apron	2
Buildings	1
Footpaths	3
Signage	1
Navigations Aids	2
Lighting System	1

Table 5 - Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the Aerodrome assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kpi's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
Federal, State Government and other Regulating Bodies i.e. CASA	• Regulation of Aerodrome and its operations		Review of Best Practice and Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 – Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
Aerodrome legislation – Civil Aviation Safety Authority (CASA) Standards – Part 139 – Aerodromes (CASA – MOS – 139)	Details specific technical specifications for aerodromes and their use.
National Construction code	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.

Table 7 - Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective Aerodrome Infrastructure and Systems which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Aerodrome systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Aerodrome Infrastructure based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Aerodrome Services to users
Function	Ensure the Aerodrome Infrastructure & Services meet Department of Health approval conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Aerodrome Infrastructure & Services to meet user requirements
Function/Accessibility	Ensure Aerodrome Infrastructure & Services are available to all occupied properties
Cost Effectiveness	Provide Aerodrome Infrastructure & Services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as electricity costs, inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition (e.g. vegetation mowing, runway sweeping, indicator painting).

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally (e.g. runway resealing, line marking, gable replacement etc).

- **Upgrade**
  The activities to provide a higher level of service (e.g. increasing plane landing capacity, upgrading communication network etc.) or a new service that did not exist previously (e.g. helicopter landing pad etc.).

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level'. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 – Intervention Level

Each assets condition is kept in the Aerodrome Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified include:

- Asset Inspections
- Land Rates
- Electrical Supply
- Engineering Management
- Telemetry & Other System Monitoring
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations and delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils Aerodrome Assets such as internal road network, runways, vegetation, apron and taxiways. Any specialised condition rating requirements will be undertaken by a specialist.

Below Ground Assets: Below ground Asset Inspections are undertaken by independent consultants and contractors that have the capacity to do so, in the Aerodrome Infrastructure below ground assets include Fuel Tanks.

Inspection	Frequency
Condition Assessments of all Above Ground Assets	Annually
Buildings	Annually
Road Network	Annually
Plant and Equipment	Daily
Security Fencing	Annually
Condition inspection of failed asset (i.e. runway deformation) incl. condition rating	Per occurrence

Table 10 - Summary of Inspections

The condition of assets is reviewed and recommended by external parties during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Vegetation Mowing	Monthly	Periodic
Maintenance Grading, Line Marking Etc	Annually	Periodic

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to aerodrome infrastructure that has sufficient capacity for current and projected growth requirements
- Aerodrome is managed in accordance with the CASA and other Legislative requirements
- The operation of the Aerodrome Infrastructure results in high quality services to customers

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

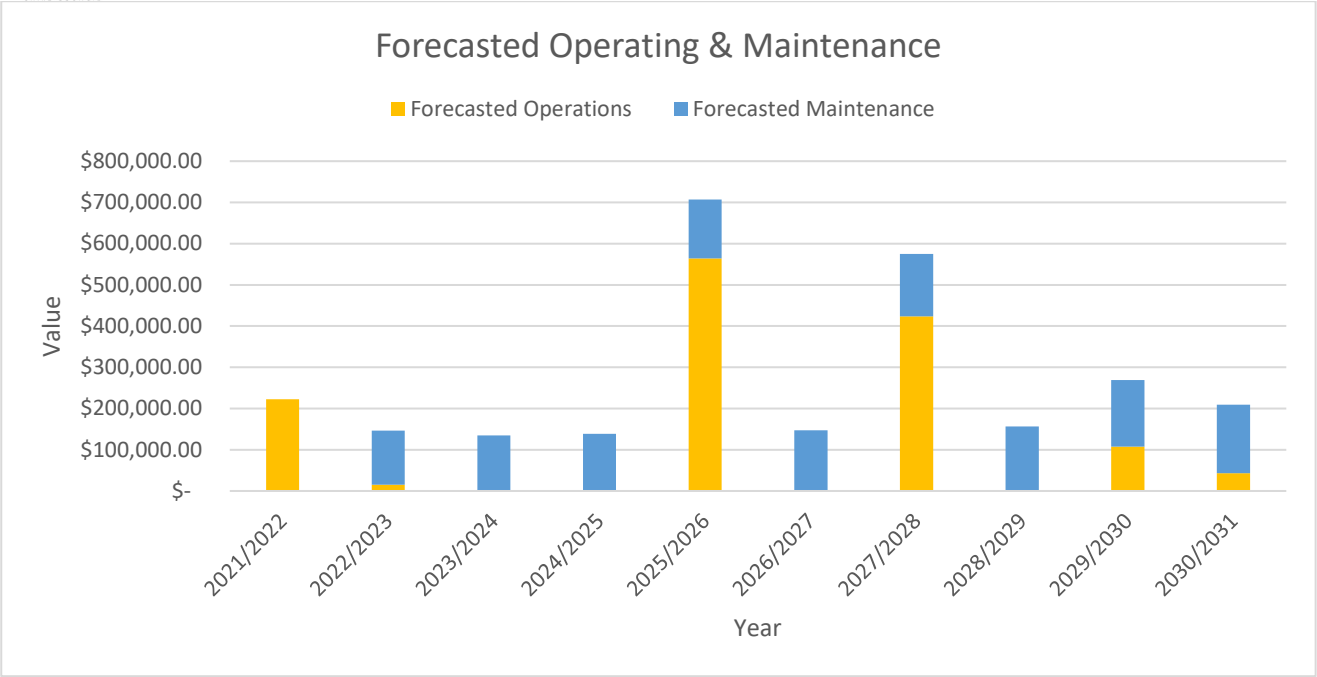


Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming
A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

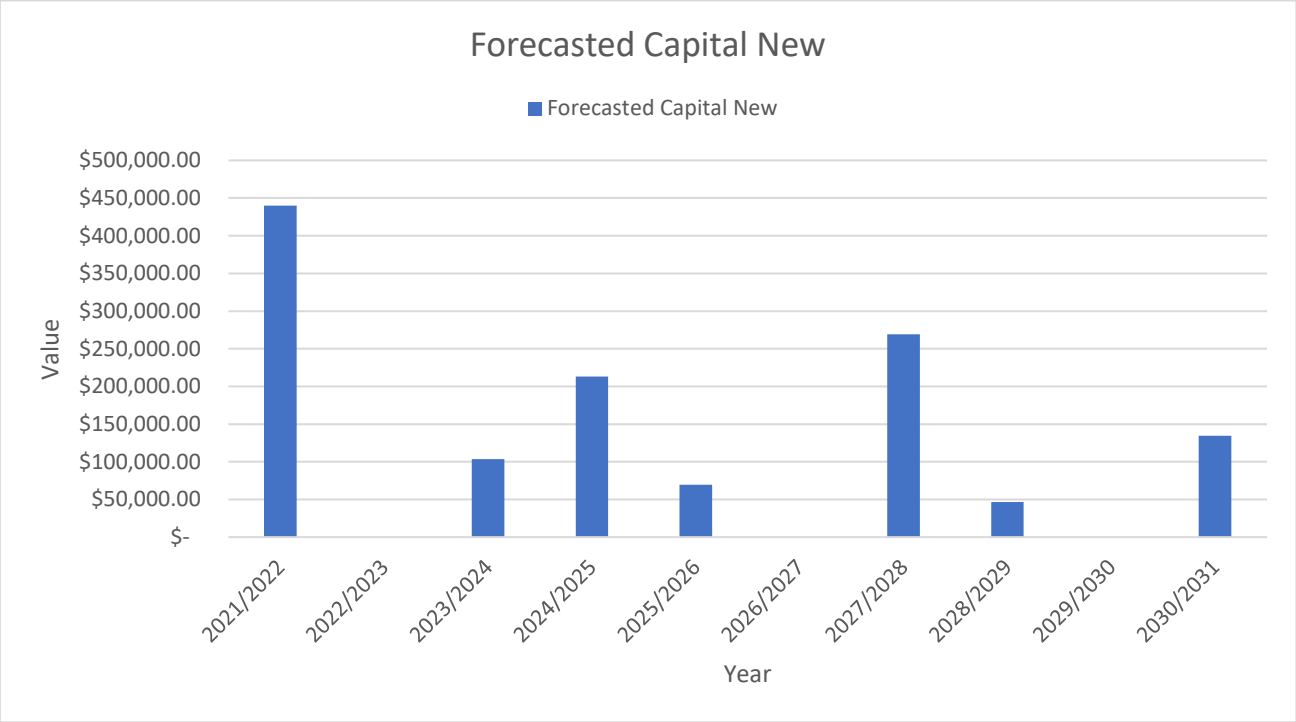


Figure 4 – Ten (10) Year Capital Works for Upgrades

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion. It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g., resurfacing or resheeting a material part of a taxiway, landing strip, or replacing a material section of a drainage network with pipes of the same capacity.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the 'Expenditure Template".

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- **Relevant Standards from the Civil Aviation Safety Authority (CASA)**
- **Relevant Australian Standards**

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $1,376,366 on renewals over the next ten years.

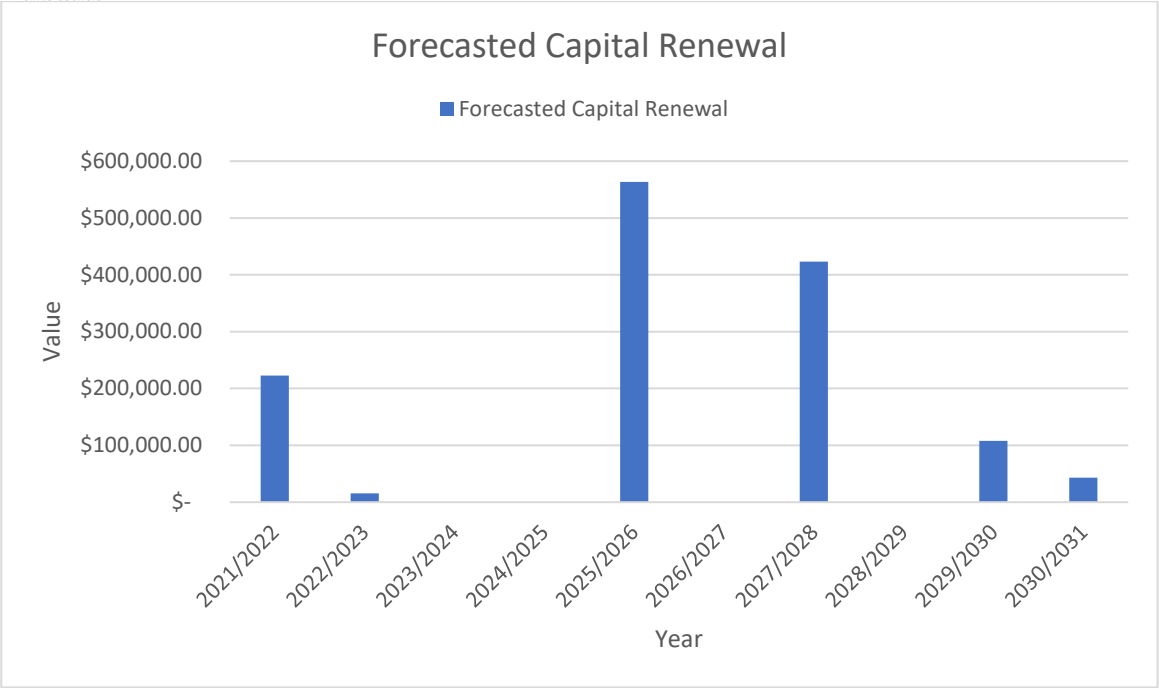


Figure 5 - Proposed 10 Year Renewal Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

ABS census data statements regarding demand within the shire can be seen below:

2001:

On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,74	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area did not change during each period.

14.2.1. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.2.2. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.2.3 Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Tomingley's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – Total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the aerodrome related assets indicates that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of aerodrome assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.4. Demand Impacts on Assets

A steady development growth in Narromine will lead to an increase in usage through the existing network. Council must ensure they understand their Aerodrome network capacity requirements to allow for increased volumes.

14.5. Demand Management Plan

14.5.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major assets.

14.5.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing networks can only be conducted once studies are completed to plan and understand future urban development within Narromine.

14.5.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing network when considering demand increase due to infill development.
- Effective control over the assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.
- Ensure existing network restrictions do not prevent land development and economic growth in Narromine.
- Develop an understanding of future requirements of Aerodrome users and operators

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

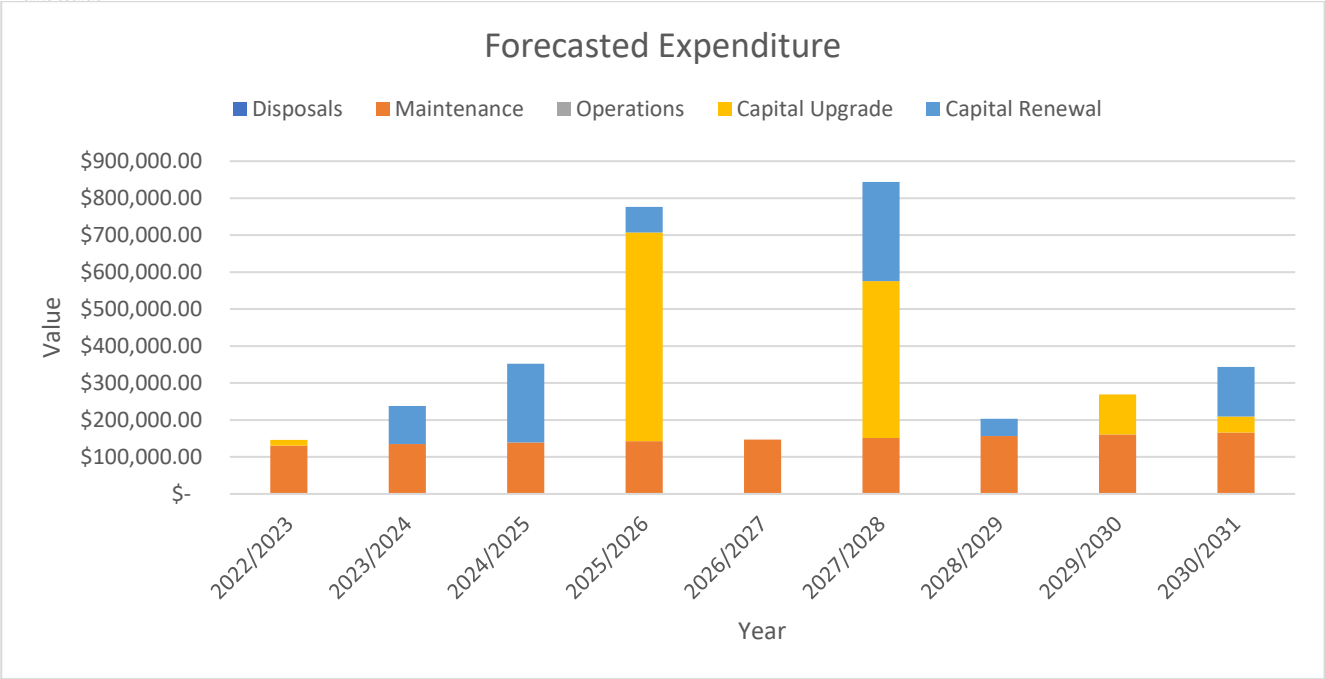


Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner.

This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Funding Strategy

Projected expenditure identified in Appendix A is to be funded from future operating and capital budgets. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measures	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
COMMUNITY LEVELS OF SERVICE							
Quality	Environmental / Health & Safety	Aerodrome meets CASA and user expectations requirements	User complaints	Less than three per year	Good	Excellent to Good	Less than four per year
Function	Operational / Health & Safety	Aerodrome is serviceable and accessible to aircraft	User complaints	Nil	Excellent	Excellent to Good	Nil
Safety	Health & Safety	Hazards on the movement area are minimised or, where possible, eliminated	Aircraft incidents or aerodrome serviceability deficiency	Less than five per year	Excellent	Excellent to Good	Less than five per year
	Health & Safety	Incursions onto airside area	NSC Aerodrome Vehicle Control Policy	Less than three per year	Good	Excellent to Good	Less than five per year
TECHNICAL LEVELS OF SERVICE							
Condition	Operational	Aerodrome meets CASA and user expectations requirements	CASA aerodrome audit	Requests for Corrective Action less than 3	Excellent	Excellent to Good	Audit findings addressed as per Corrective Action Plan and Requests for Corrective Action less than 1

Key Performance Measures	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
	Health & Safety	Loose stones and surface texture of sealed surfaces on movement area	Visual and tactile assessment	Satisfactory surface texture and loose stone count	Average	Excellent to Good	Loose stone count is above average
Amenity	Operational	Maintenance of remainder of airside area outside movement area	Mowing conducted as required to minimise animal hazard	Nil complaints received and nil record of bird strikes	Excellent	Excellent to Good	Nil complaints received and nil record of bird strikes
Cost Effectiveness	Operational	Provide appropriate aerodrome facilities commensurate with level of use and value to the community	Avg. Maintenance cost per year is $184,000 (Narromine)	On or Under budget	Excellent	Excellent to Good	On Budget
	Operational	Provide an aerodrome that meets the current and foreseeable needs of users in line with community expectations and available resources.	Users and community agree with resources allocated to aerodrome	Less than 10 complaints per year	Excellent	Excellent to Good	5-8 complaints per year

Table 16 - Performance Measures

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Konect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and
- Producing work order.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council currently employs trained operators in operations for the Aerodrome Reporting Officer as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents;
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan.
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services; and
- Telemetry Data primarily used for measuring the operational performance of the Asset and ensuring that the infrastructure is delivering the performance requirements of the customer.

In addition to the Asset Management Strategy, Table 16 includes improvements to the management and planning of Aerodrome assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plant will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within3 the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Aerodrome Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AMS to the GIS system	4	2023/24
17	Knowledge	Review of the Aerodrome Manual to meet CASA standards	1	2022/23

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

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Appendix A: Ten Year Capital Works Program

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
CAPITAL LIFE CYCLE	.	.	.	.	.	.	.	.	.	.
Runway 11/29 - Wearing Surface - Reseal					560,602					
Runway 11/29 - Line Marking - Line Renewal					3,169					
Runway 04/22 - Wearing Surface - Reseal							422,345			
Runway 04/22 - Line Marking - Line Renewal							1,088			
Taxiway A - Wearing Surface - Reseal	15,527								19,669	
Taxiway A - Line Marking - Line Renewal										
Taxiway B - Wearing Surface - Reseal	15,692								19,878	
Taxiway B - Line Marking - Line Renewal										
Taxiway D - Wearing Surface - Reseal	53,921								68,305	
Taxiway D - Line Marking - Line Renewal										
Apron - Wearing Surface - Reseal	137,711									

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Apron - Line Marking - Line Renewal										
Taxiway C - Wearing Surface - Reseal		10,344								13,103
Taxiway C - Line Marking - Line Renewal		104								132
Taxiway E - Wearing Surface - Reseal		4,774								6,048
Taxiway E - Line Marking - Line Renewal		48								60
Aeroclub Car Park - Wearing Surface - Reseal										7,257
Aeroclub Car Park - Line Marking - Line Renewal										60
Internal Roads - Wearing Surface - Reseal										16,127
Internal Roads - Line Marking - Line Renewal										403
NEW, ACQUISITION AND/OR UPGRADE	.	.	.	.	.	.	.	.	.	.
New Gravel Taxi-way	228,660									
Tree Removal	43,260									

	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Additional Cable Tie Downs	64,869									
Old Hangar Slab Removal			63,258							
Irrigation & Landscaping - Aerodrome Entrance				100,578						
Irrigation & Landscaping - Other Public Area					69,394					
Additional Grass Runway							85,937			
Irrigation of Grassed Runway							60,210			
Glider Trailer Parking Area Development								46,686		
Crack Sealing Program	103,000			112,551			122,987			134,392
Building #8 Disposal			40,271							

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Community & Recreational Facilities
(AMP5)

Contents

1. Executive Summary

Council's intention is to provide the Shire of Narromine with Recreation and Community Facilities via infrastructure that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Recreation and Community Services had a fair value of approximately $14,817,411 on the 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the Recreational & Community Facilities assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan;
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan;
- Ensures the management of Recreational & Community Facilities infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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; and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 3.40% of these assets are Recreational and Community Facilities assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2 Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff – Asset Management Working Group, etc.

1.3 Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4 Recreational & Community Facilities Supplies

Narromine Shire Council supplies Recreational & Community Facilities infrastructure and services to the townships of Narromine, Trangie and Tomingley.

In Narromine, Trangie and Tomingley, there are currently a wide range of facilities open the public which include parks, ovals, sports complexes, race courses and showgrounds to name a few.

The supply of Recreational & Community Facilities services is critical to community especially in terms of public health and wellbeing. It is critical that systems do not deteriorate to a level where community users are at risk or compromised.

1.5 Recreational & Community Facilities Services

In summary, the Recreational & Community Facilities Services comprise of the following major assets:

- Cemeteries
- Sports Complex
- Parks
- Ovals
- Gardens
- Sports Grounds
- Swimming Pools
- Showgrounds

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Cemeteries	Ea.	2	NA
Sports Complex	Ea.	1	35
Parks	Ea.	13	NA
Ovals (excl. Sporting Ovals)	Ea.	3	NA
Sports Grounds	Ea.	2	NA
Swimming Pools	Ea.	2	2
Showgrounds	Ea.	2	20

Table 1 – Major Assets

While a number of assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.6 Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable Recreational & Community Facilities services to its customers and environment and to meet legislative requirements

2. Operation, maintenance, renewal and the upgrade of:
- Cemeteries;
- Sports Complex;
- Parks;
- Gardens;
- Sports Grounds;
- Swimming Pools; and
- Showgrounds,

   to meet service levels set by Council and to meet statutory requirements.

3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations)

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

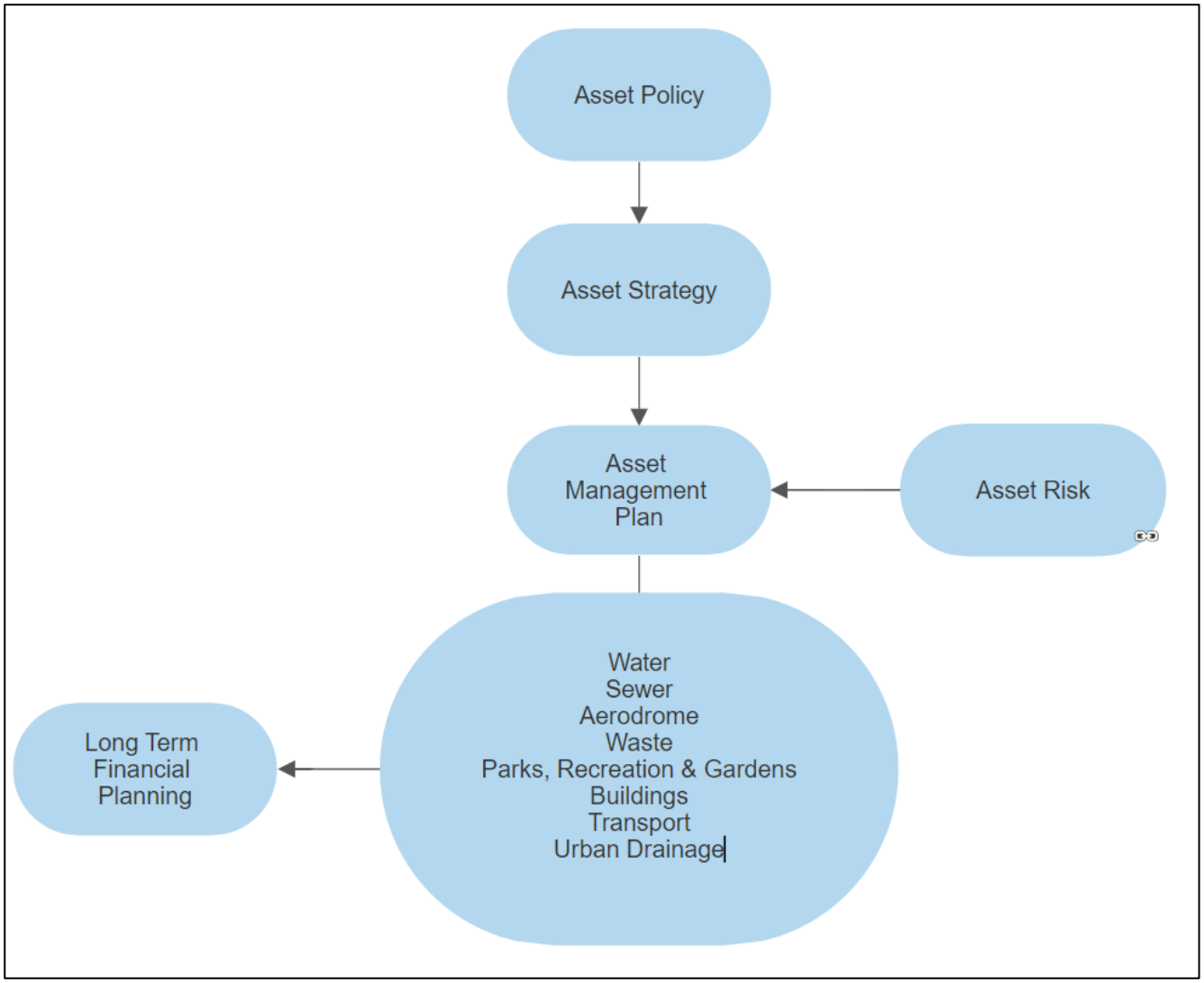

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Recreational & Community Facilities assets have been condition rated externally during a revaluation.

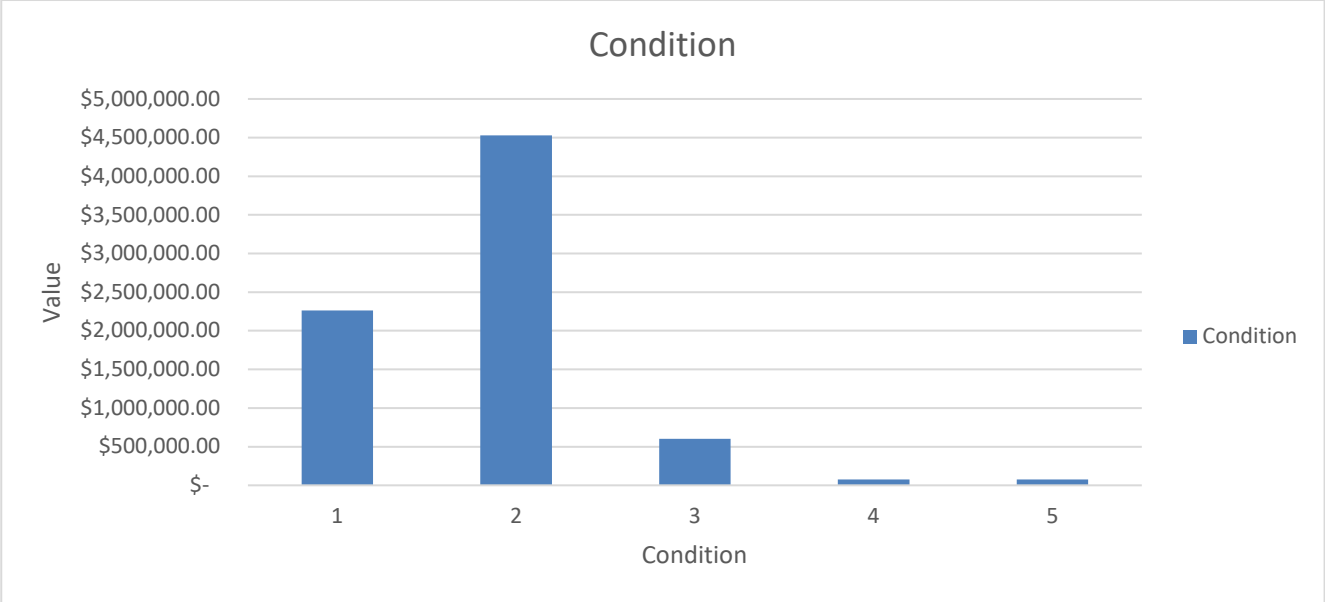

Figure 2 – Asset Conditions

3.2. Other Criteria

The process of managing our Recreational & Community Facilities assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Recreational & Community Facilities Assets

Appendix A conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition
Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the community of Narromine, Trangie and Tomingley with Recreational & Community Facility Infrastructure and Services that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in the appendix. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Cemeteries	Ea.	1	NA
Sports Complex	Ea.	1	35
Parks	Ea.	13	NA
Ovals (excl. Sporting Ovals)	Ea.	3	NA
Sports Grounds	Ea.	2	NA
Swimming Pools	Ea.	2	2
Showgrounds	Ea.	2	20

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Sub-Asset Class	Component	Theoretical Useful Life
Recreational & Community Facilities	Buildings	Sub-structure	50
Recreational & Community Facilities	Buildings	Super structure	50
Recreational & Community Facilities	Buildings	Finishes	15
Recreational & Community Facilities	Buildings	Fittings	10
Recreational & Community Facilities	Buildings	Services	25
Recreational & Community Facilities	Buildings	Finishes	9
Recreational & Community Facilities	Internal Road	Formation	100
Recreational & Community Facilities	Internal Road	Pavement	20
Recreational & Community Facilities	Internal Road	Wearing Surface	15
Recreational & Community Facilities	Fencing	External Chain Fence	50

Asset Class	Sub-Asset Class	Component	Theoretical Useful Life
Recreational & Community Facilities	Play Equipment		25
Recreational & Community Facilities	Furniture	BBQ	5
Recreational & Community Facilities	Furniture	Benching	25
Recreational & Community Facilities	Pumps		20
Recreational & Community Facilities	Pool Liner		50
Recreational & Community Facilities	Culverts		50
Recreational & Community Facilities	Artificial Turf		5
Recreational & Community Facilities	Shade Structure		10
Recreational & Community Facilities	Protective Coating of Surface		20
Recreational & Community Facilities	Basketball Ring		20

Table 4 – Useful Life

6.3. Classification

The classifications of Recreational & Community Facilities Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Hierarchy	Asset Category	Sub-Type	Description
1	Parks	Highest Value Parks	High profile, well used space, embellishments including landscaping, park furniture, playground equipment, lighting. Asset in good condition operationally and aesthetically.
2	Parks	Medium Value Parks	Used space, embellishments may include landscaping, park furniture, playground equipment. Asset in fair condition operationally and aesthetically.
3	Parks	Low/Minimal Value Parks	Local space, often small, minimal infrastructure. Health and safety issues addressed.
4	Parks	Undeveloped, Underutilised Parks	Undeveloped land or under-utilised open space. Future use under consideration. Health and safety issues addressed within available funds. Relatively undisturbed bushland.
1	Sports Grounds	District Sports Ground	Well used asset, substantial infrastructure, high standard of maintenance when in play, major events.
2	Sports Grounds	High Use Local Sporting Field	High use, basic infrastructure, regular maintenance when in play. Asset in fair condition operationally.
3	Sports Grounds	Low Use Local Sporting Field	Basic infrastructure, local low use only
1	Cemeteries	High Visitation, Active Burial Site	Large sites, regular burials, high visitation
2	Cemeteries	Low Visitation, Potential Burial Site	Small sites, irregular to nil burials, low visitation
3	Cemeteries	Historic burial site	Historic value, little use, nil burials
2	Playgrounds	Local Playground	High use, asset in fair condition operationally.
1	Gardens	Highest Value Gardens	High public profile, significant importance to overall town amenity and civic pride
2	Gardens	Medium Value Public Gardens	Medium profile, medium importance to overall town amenity and civic pride
1	Public Domain / Open Space	High Visibility Public Domain/ Open Space	High profile, high importance to overall town amenity and civic pride
2	Public Domain / Open Space	Low/Minimal Value Public domain	Low profile, low importance to overall town amenity and civic pride. Laneway inspections. Health and safety issues addressed as required.

Hierarchy	Asset Category	Sub-Type	Description
3	Public Domain / Open Space	Undeveloped Public Reserves	Ad hoc, basic seasonal maintenance if required
1	Tree Maintenance	Less than 1 year old	Watering and maintenance as required
2	Tree Maintenance	More than 1 year old	Maintenance as required
1	Facilities	Occupied daily, High usage, integral facility to the town	- Swimming Pools: Narromine - Swimming Pools: Trangie - Sports Complex - Showgrounds: Narromine - Showgrounds: Trangie - Hub N Spoke - Pound
2	Facilities	Other	- Saleyards

Table 5 – Classification

7. Stakeholder Management

Council has several methods for collecting feedback on their performance in managing the recreational and community assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kip's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
Federal, State Government and other Regulating Bodies	• Regulation of Recreational & Community Facilities and its operations		Review of Best Practice and Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 - Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Legislation	Requirement
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
National Construction code	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.
Contaminated Land Management Act	Sets out specific requirement in connection with the land remediation of land.
Threatened species conversation Act 1995	Developing strategies to tackle biodiversity loss requires the identification and understanding of the threatening processes that lead to the extinction of species, populations and ecological communities such as weeds, feral animals and climate change.
Child Protection Act	Provides requirements in relation to the protection of children in public spaces.

Table 7 – Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective Recreational & Community Facilities Infrastructure and Systems which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Recreational & Community Facilities systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Recreational & Community Facilities Infrastructure based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Recreational & Community Facilities Services to users
Function	Ensure the Recreational & Community Facilities Infrastructure & Services meet Department of Health approval conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Recreational & Community Facilities Infrastructure & Services to meet user requirements
Function/Accessibility	Ensure Recreational & Community Facilities Infrastructure & Services are available to all occupied properties
Cost Effectiveness	Provide Recreational & Community Facilities Infrastructure & Services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as electricity costs, inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition.

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally.

- **Upgrade**
  The activities to provide a higher level of service or a new service that did not exist previously.

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level'. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Intervention Levels

Each assets condition is kept in the Recreational & Community Facilities Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified relevant to Recreational & Community Facilities Services include:

- Asset Inspections
- Land Rates
- Electrical Supply
- Engineering Management
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with safety, environmental, operations and delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils Assets such as Play Equipment. Any specialised condition rating requirements will be undertaken by a specialist.

Below Ground Assets: Below ground Asset Inspections are undertaken by independent consultants and contractors that have the capacity to do so.

Inspection	Frequency
Condition Assessments	Yearly
Asset BBQ's	Yearly
Asset Amenities	Yearly
Playgrounds	Yearly
Water Features	Yearly
Picnic Shelters	Yearly

Table 10 - Summary of Inspections

All condition assets are reviewed and recommended by external parties during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Activity
Mowing (Summer)	Weekly	Mowing (Summer)
Mowing (Winter)	Fortnightly	Mowing (Winter)
Turf Renovation	Biannual	Turf Renovation

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to Recreational & Community Facilities infrastructure that has sufficient capacity for current and projected growth requirements
- Recreational & Community Facilities is managed in accordance with Legislative requirements
- The operation of the Recreational & Community Facilities Infrastructure results in high quality services to customers

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

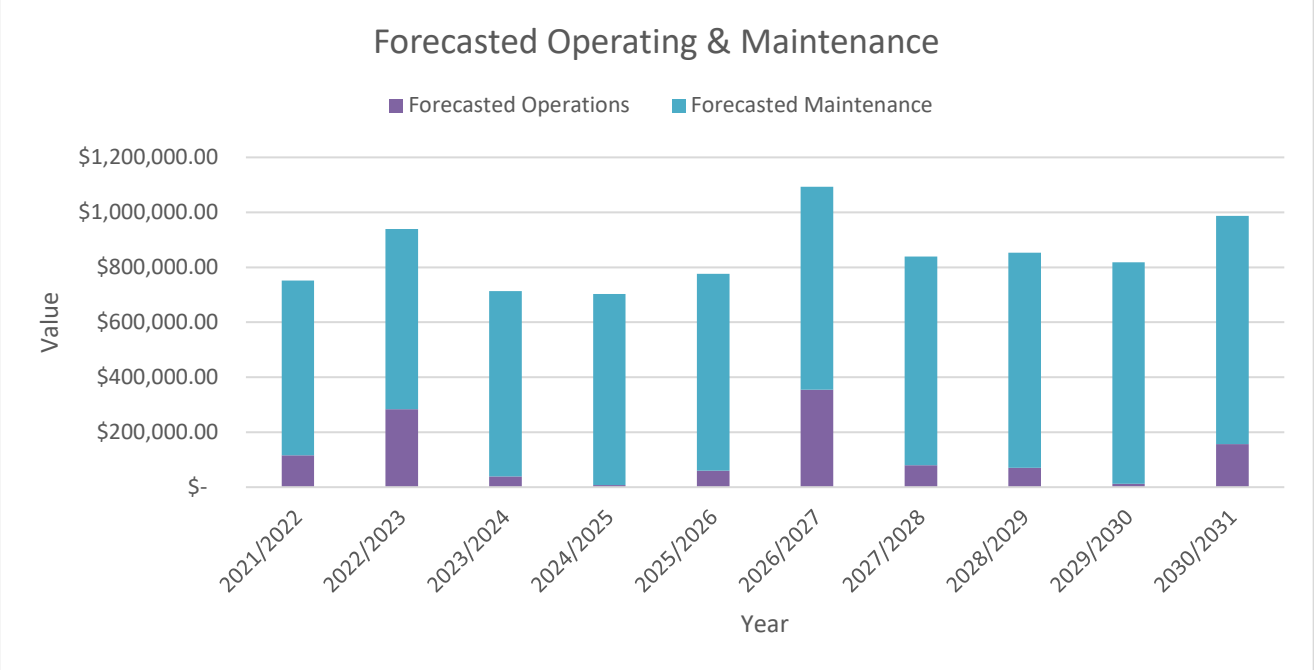

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

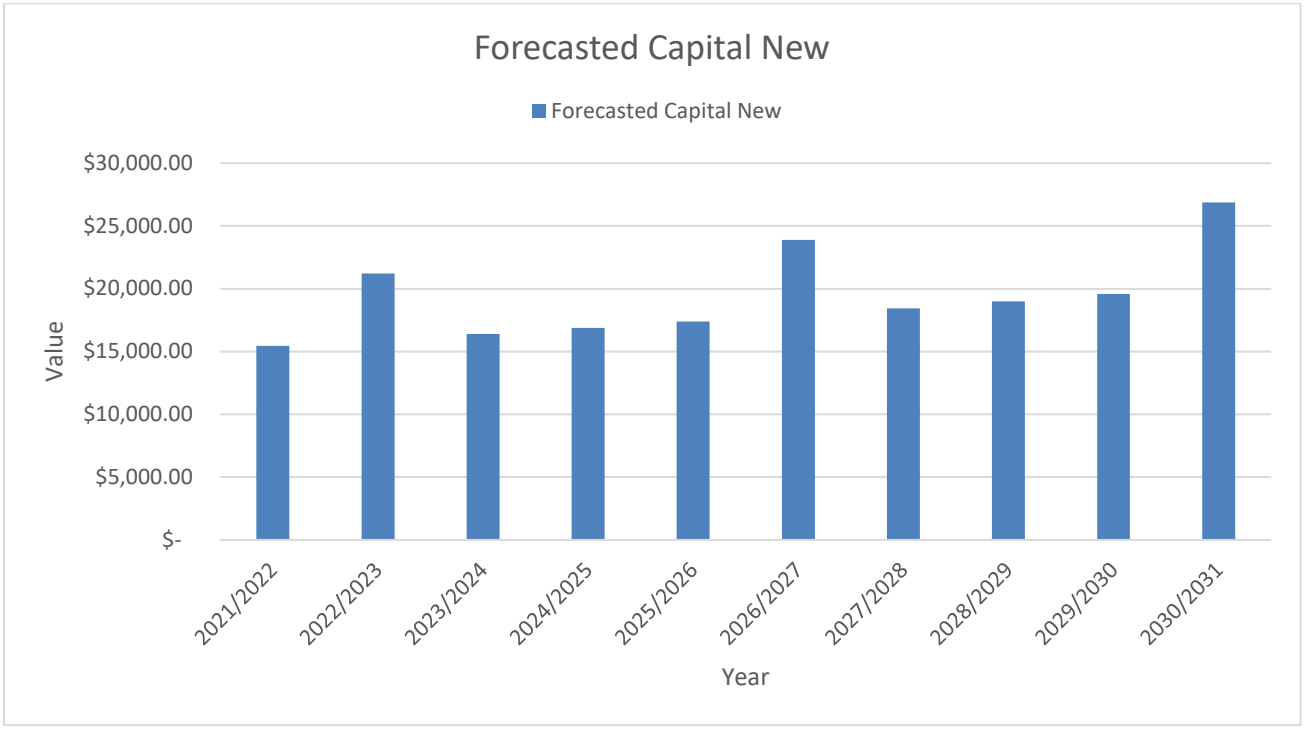

Figure 4 - Projected Operations & Maintenance Expenditure

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.

It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. resurfacing an oval, renewal of a playground, soft fall etc.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the ‘Expenditure Template”.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the ‘Expenditure template’.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Supplier, Manufacturer's Specifications
- Relevant Australian Standards

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $1,179,945 on renewals over the next ten years.

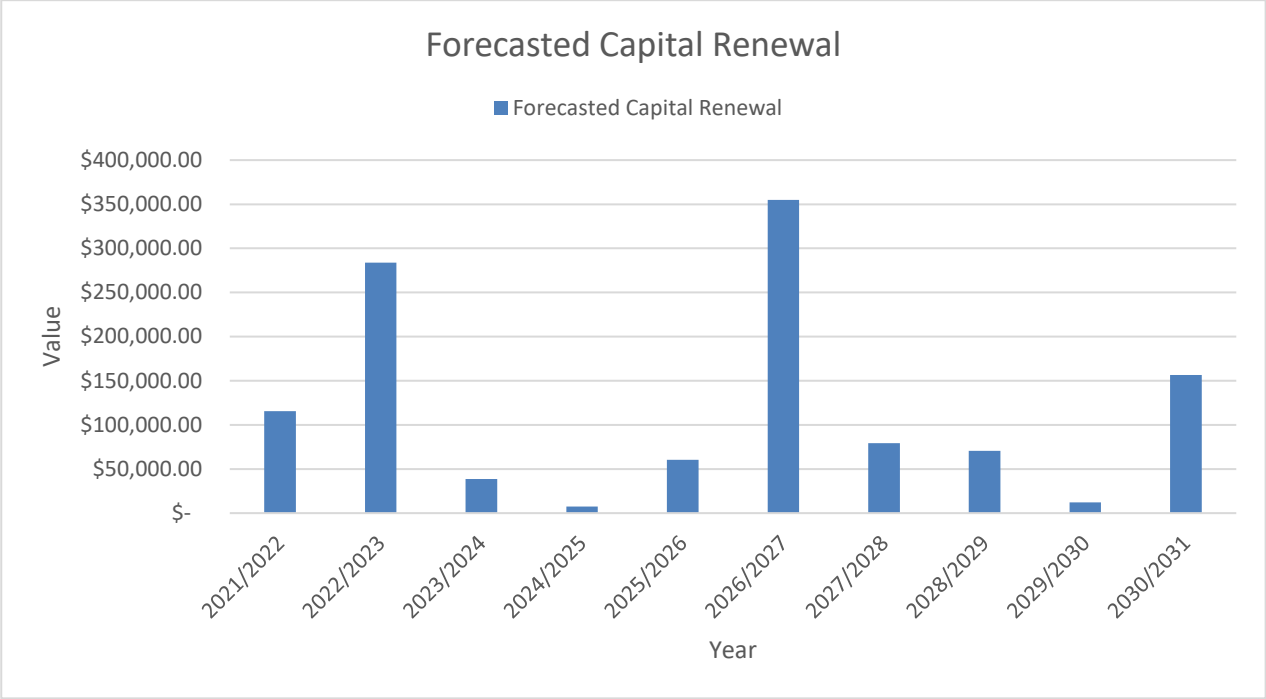

Figure 5 - Proposed Renewal Allocations Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus

areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

ABS census data statements regarding demand within the shire can be seen below:

2001:
On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area did not change during each period.

14.2. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.5. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the Recreational & Community Facilities related assets indicate that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of Recreational & Community Facilities assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.6. Demand Impacts on Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in usage through the existing network. Council must ensure they understand their network capacity requirements to allow for increased volumes.

14.7. Demand Management Plan

14.7.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major assets.

14.7.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine. A clear understanding of the existing network capacity and demand requirement, will be essential in this process.

14.7.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing network when considering demand increase due to infill development.
- Effective control over the assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

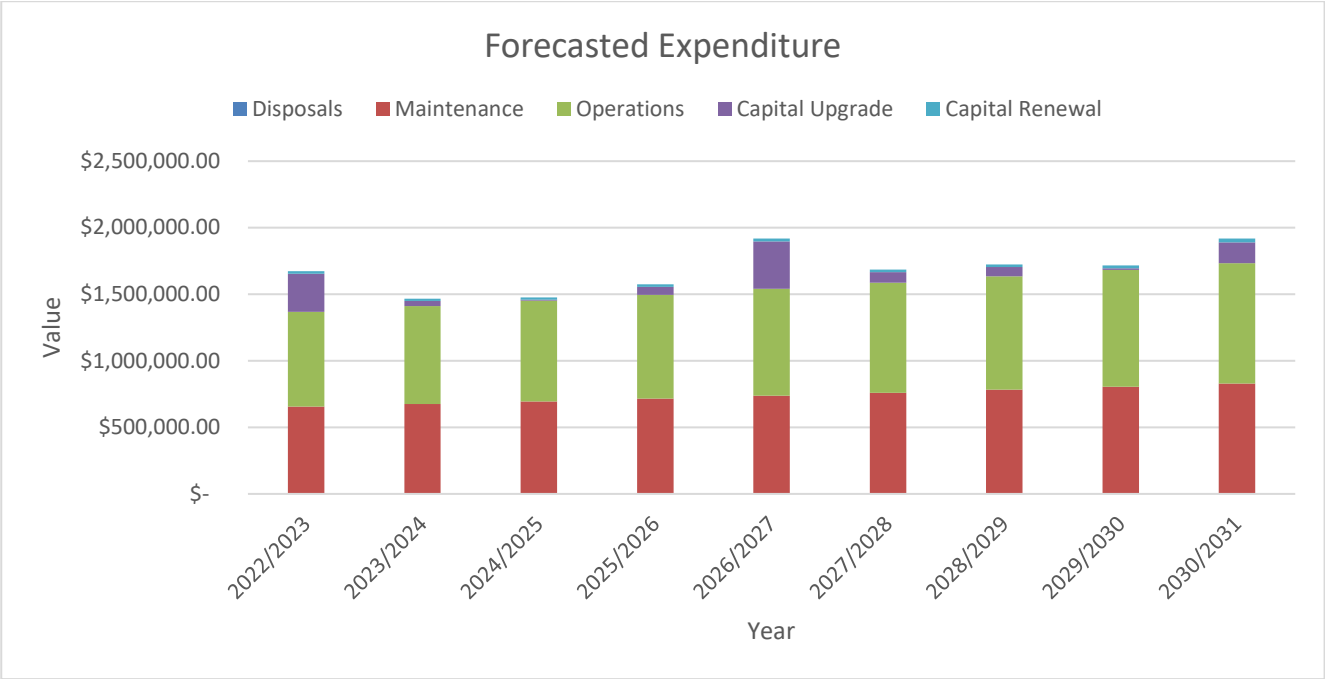

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on;

Funding Strategy

Projected expenditure identified in Appendix A is to be funded from future operating and capital budgets. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measures
COMMUNITY LEVELS OF SERVICE							
Quality	Operational	Provide clean accessible well-maintained recreational services	Customer services requests/complaints, customer surveys	<5 complaints per month	Satisfactory	Excellent to Good	TBD
Function	Operational / Health & Safety	Recreation Facilities are fit for purpose, meet users' requirements & industry standards	Customer service requests/complaints, customer surveys	< 2 complaints per month	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Provide safe suitable facilities, free from hazards	Reported accidents	Zero reported accidents	Satisfactory	Excellent to Good	TBD
TECHNICAL LEVELS OF SERVICE							
Condition	Operational	Recreation Facilities functionality is not compromised by condition	Regular condition inspections	Allocate appropriate funding and resources	Satisfactory	Excellent to Good	TBD

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measures
Function /Accessibility	Operational	Legislative compliance	Provide access and service for all user groups	100% compliance	Satisfactory	Excellent to Good	TBD
Cost Effectiveness	Operational	Provide service in cost effective manner	Budget compliance	Expenses within budget	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Ensure facilities are safe	Regular safety audits carried out, action customer request within 5 working days	Safety inspections – electrical tagging/testing as per standards, Legislative audit. –Safety inspection, 6 months/annually -Defects repaired within approved timeframes	Satisfactory/Ongoing	Excellent to Good	TBD

Table 16 - Performance Measures

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Konect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and;
- Producing work orders.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in "Authority". This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council employs operators' part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation's Long-Term Financial Plan and Community/Strategic Planning processes and documents;
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the 'global' works program trends provided by the asset management plan; and
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services

In addition to the Asset Management Strategy, Table 16 includes improvements to the management and planning of Recreational & Community Facilities assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 16.

The improvement plant will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within3 the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Recreational & Community Facilities Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2023/24
18	Knowledge	Develop Master Plan for Dundas Park/Payton Oval	1	2022/23

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

Planning.nsw.gov.au. 2022. *Projections*. [online] Available at: <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Projections> [Accessed 28 April 2022].

1. Appendix A: Ten Year Capital Works Program

Play Ground Equipment	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Argonauts Park - Playground Equipment - REPLACEMENT / REHABILITATION					23,185					
Commodore Park - Playground Equipment - REPLACEMENT / REHABILITATION						17,911				
McKinnon Park - Playground Equipment - REPLACEMENT / REHABILITATION							24,597			
Rotary Park Playgrounds - Playground Equipment - REPLACEMENT / REHABILITATION	41,200									
TRANGIE										
Argonauts Park Playground - Playground Equipment - REPLACEMENT / REHABILITATION								25,335		
Bicentennial Park Playground - Playground Equipment - REPLACEMENT / REHABILITATION										26,878
TOMINGLEY										
Dicken Park Playground - Playground Equipment -		15,914								

REPLACEMENT / REHABILITATION										
NEW, ACQUISITION AND/OR UPGRADE										

SURFACE REPLACEMENT	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Argonauts Park - Playground Surface - REPLACEMENT / REHABILITATION	11,124									
Commodore Park - Playground Surface - REPLACEMENT / REHABILITATION		2,652				2,985				3,360
Dundas Park - Playground Surface - REPLACEMENT / REHABILITATION			13,659				15,373			
McKinnon Park - Playground Surface - REPLACEMENT / REHABILITATION				4,221				4,750		
Rotary - Endurance Equipment Surface - REPLACEMENT / REHABILITATION	6,438				7,245				8,155	
Rotary - Strength Equipment Surface - REPLACEMENT / REHABILITATION		1,061				1,194				1,344
Rotary Park - Playground Equipment Surface - REPLACEMENT / REHABILITATION	7,416									
Apex Park - Basketball Court Surface - REPLACEMENT / REHABILITATION						71,643				
Apex Park - Netball Court Surface - REPLACEMENT / REHABILITATION						193,436				
TRANGIE										
Argonauts Park - Playground Surface - REPLACEMENT / REHABILITATION						14,329				
Swift Park - Playground Surface - REPLACEMENT / REHABILITATION						14,329				
TOMINGLEY										

SURFACE REPLACEMENT	1	2	3	4	5	6	7	8	9	10
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Dicken Park - Surface - REPLACEMENT / REHABILITATION						9,314				
Eric Woods - Surface - REPLACEMENT / REHABILITATION										
NEW, ACQUISITION AND/OR UPGRADE										
NARROMINE										
TRANGIE										
TOMINGLEY										

	1	2	3	4	5	6	7	8	9	10
SPORTS GROUND FACILITIES	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
LIFE CYCLE CAPITAL COSTS										
Narromine										
Argonauts Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION		3,183								
Argonauts Park - SIGNAGE - REPLACEMENT / REHABILITATION										2,688

	1	2	3	4	5	6	7	8	9	10
SPORTS GROUND FACILITIES	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Commodore Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION										4,032
Dundas Park - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
McKinnon Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION					3,478					
McKinnon Park - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Rotary Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION		257,799								
Rotary Park - FENCING - REPLACEMENT / REHABILITATION	12,875									
Rotary Park - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Noel Powell Oval - TABLES & CHAIRS - REPLACEMENT / REHABILITATION	3,090									
Noel Powell Oval - LIGHTING - REPLACEMENT / REHABILITATION								40,537		
Noel Powell Oval - FENCING - REPLACEMENT / REHABILITATION	7,725									

	1	2	3	4	5	6	7	8	9	10
SPORTS GROUND FACILITIES	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Noel Powell Oval - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Cale Oval - LIGHTING - REPLACEMENT / REHABILITATION							39,356			
Cale Oval - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Dundas Oval - TABLES & CHAIRS - REPLACEMENT / REHABILITATION					3,478					
Dundas Oval - FENCING - REPLACEMENT / REHABILITATION					23,185					
Dundas Oval - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Payten Oval - TABLES & CHAIRS - REPLACEMENT / REHABILITATION				3,377						
Payten Oval - LIGHTING - REPLACEMENT / 5 REHABILITATION										43,005
Payten Oval - FENCING - REPLACEMENT / REHABILITATION						29,851				
Payten Oval - SIGNAGE - REPLACEMENT / REHABILITATION										2,688

	1	2	3	4	5	6	7	8	9	10
SPORTS GROUND FACILITIES	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Olsen Park - FENCING - REPLACEMENT / REHABILITATION										26,878
Main Street & Other - TABLES & CHAIRS - REPLACEMENT / REHABILITATION			3,278							
Main Street & Other - SIGNAGE - REPLACEMENT / REHABILITATION										2,688
Trangie										
Argonauts Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION									3,914	
Argonauts Park - FENCING - REPLACEMENT / REHABILITATION			21,855							
Main Street & Other - TABLES & CHAIRS - REPLACEMENT / REHABILITATION		3,183								
Main Street & Other - FENCING - REPLACEMENT / REHABILITATION										26,878
Tomingley										
Dicken Park - TABLES & CHAIRS - REPLACEMENT / REHABILITATION	3,090									
Dicken Park - FENCING - REPLACEMENT / REHABILITATION	20,600									

	1	2	3	4	5	6	7	8	9	10
SPORTS GROUND FACILITIES	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Dicken Park - SIGNAGE - REPLACEMENT / REHABILITATION	2,060									
Acquisition, New and/or Other Capital Works										
NARROMINE										
BIN UPGRADES		5,305				5,970				6,720

	1	2	3	4	5	6	7	8	9	10
IRRIGATION	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
ACQUISITION, NEW AND/OR OTHER CAPITAL WORKS										
NARROMINE										
Irrigation / Sprinkler Upgrade Program	10,000									
TRANGIE										
Irrigation / Sprinkler Upgrade Program	5,000									
TOMINGLEY										

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Transport
(AMP6)

Contents

1. Executive Summary

Council's intention is to provide the Shire with Transport services via infrastructure that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Transport Services had a fair value of approximately $250,542,702 on 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy
- NSW Government – Draft Central West and Orana Regional Transport Plan.

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the Transport assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic plan;
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan;
- Ensures the management of Transport infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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 longer term that meet the defined level of service;
- Identifying, assessing and appropriately controlling risks; and
- Having a long-term financial plan which identified required, affordable expenditure and how it will be financed.

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 65.17% of these assets are Transport assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2. Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff

1.3. Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4. Transport Supplies

Narromine Shire Council supplies transport infrastructure and services to the entire shire council with regional, rural and urban road network and associated infrastructure such as bridges, rural drainage, floodway's, signage, footpath etc.

The supply of Transport services is critical to community. It is critical that systems do not deteriorate to a level where community users are at risk or safety compromised.

The Transport Services comprise of the following major assets:

- Road Formation
- Road Pavement
- Road Seal/ Wearing Course
- Floodways
- Roadside furniture such as signage, guideposts, barriers, etc.
- Footpaths
- Bridges and Large Culverts
- Car Parks

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Road Formation	Km	1,574	NA
Road Pavement	Km	1,186	20
Road Seal	Km	816	15
Floodway's	Km	41,108	11
Footpath	Km	20,666	22
Bridges incl. Large Culverts	Ea.	52	30

Table 1 – Major Assets

While several assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.5. Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable Transport services to its customers and environment and to meet legislative requirements

2. Operate, maintain, renew and the upgrade of:
   - Road Formation;
   - Road Pavement;
   - Road Seal;
   - Floodways;
   - Signage; and
   - Footpaths,

   to meet service levels set by Council and to meet statutory requirements and;

3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations).

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

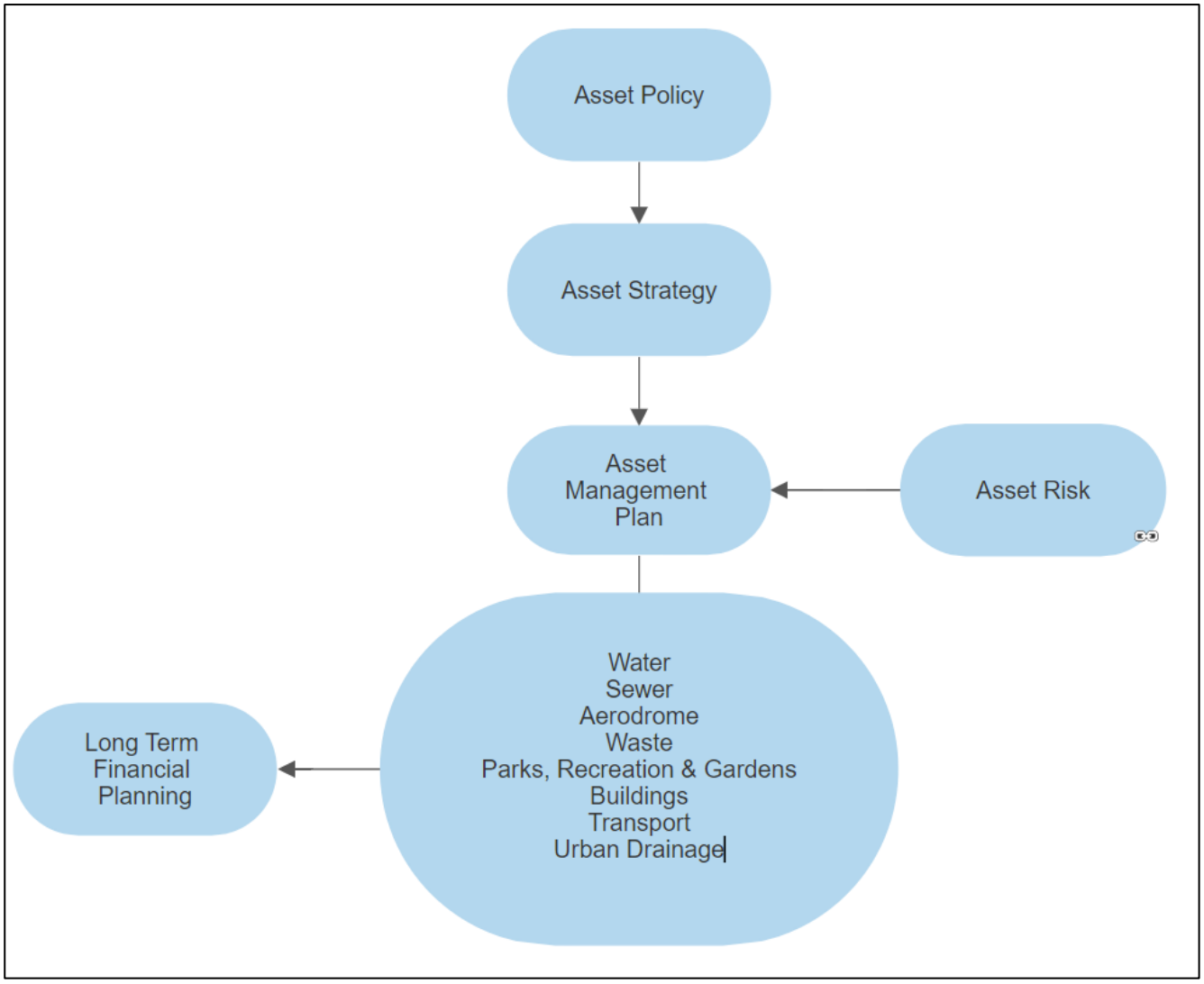

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Transport assets have been condition rated externally during a revaluation in the year of 2021.

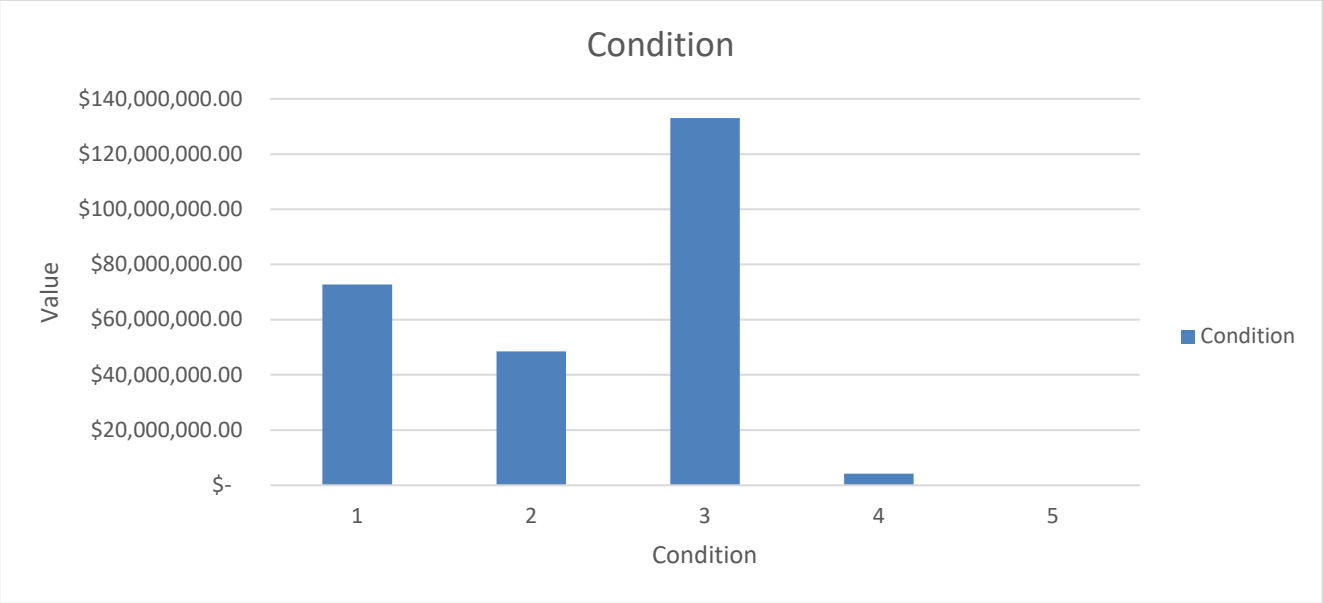

Figure 2 - Road Asset Condition

3.2. Other Criteria

The process of managing our Transport assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Transport Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy.
Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Management Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition
Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity
Western NSW Regional & Local Road Plan	Deals with strategic improvements to the Narromine Shire Council
Pedestrian Access and Mobility Plan 2012.	Recommends a range of pedestrian improvements throughout the towns, many of which have been implemented

Roads Manual	A Seven Part Manual that in detail outlines how Narromine Shire Council Manages the Roads. The Parts include: - Part One: Introduction - Part Two: Administration - Part Three: Asset Planning - Part Four: Operations - Part Five: Finance - Part Six: Reporting And Part Seven: Implementation. This Manual is currently under review.
Defect Operations Management Plan	Plan that outlines the details associated with management of defects and REFLECT system.

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the community of Narromine with Transport Infrastructure and Services that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in Appendix A. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Road Formation	Km	1,574	NA
Road Pavement	Km	1,186	20
Road Seal	Km	816	15
Floodway's	Km	41,108	11
Footpath	Km	20,666	22
Bridges incl. Large Culverts	Ea.	52	30

Table 3 – Summary of Parent Assets

6.2. Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Description	Material	Theoretical Useful Life
Boxed Kerb & Gutter	Plain Concrete	50
Vehicle Layback	Plain Concrete	50
Concrete - Pipe Culvert	Reinforced Concrete	50
Concrete - Boxed Culvert	Reinforced Concrete	50
Access Ramp	Reinforced Concrete	50
Open Channel Drain	Reinforced Concrete	50
Open Channel Drain	Loam	100
Kerb Inlet Pit	Reinforced Concrete	50
Footpath	Gravel	50
Footpath	Reinforced Concrete	50
Hand railing	Alloy	20
Pedestrian Crossing Linemarking	Thermoplastic	5
Median	Reinforced Concrete	50
Crash Barrier	Reinforced Concrete	50
Bus Shelter	Alloy	30

Description	Material	Theoretical Useful Life
Guard Railing	Alloy	30
Signage	Alloy	5
Longitudinal, Transverse Linemarking	Water Based Paint	5
Wearing Surfacing	Bitumen Surfacing	10
Wearing Surface	Asphalt	20
Pavement	Select Fill	20
Pavement	DGB20	20
Pavement	DGS40	20
Formation	Soil	100
Superstructure	Reinforced Concrete	50
Abutments	Reinforced Concrete	50
Substructure	Reinforced Concrete	50

Table 4 – Useful Life

6.3. Classification

The classifications of Transport Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Class	Description	Image	Function
1	Arterial Road		**Primary:** • AADT > 500 **Secondary:** • Traffic movement between regions and service centres. • Permanent School Bus
2	Sub-Arterial Roads		**Primary:** • 150< AADT <499 **Secondary:** • Traffic movement between collector or access road and arterial road. • Permanent School Bus
3	Collector Road		**Primary:** • 70< AADT <149 **Secondary:** • Traffic movement between access road and arterial or sub-arterial road. • Permanent School Bus
4	Access Road		**Primary:** • 20<AADT<69 **Secondary:** • Road to access limited properties where people actually reside (rural: ≥ 4 houses). • Permanent School Bus OR Route used to access permanent school bus
5	Convenience Links		**Primary:** • AADT<19 **Secondary:** • Road to access limited properties where people actually reside (rural: ≤ 3 houses) • Route used to access a permanent school bus
6	Service Track		**Primary:** • AADT<5 **Secondary:** • Access to Private or single property

Table 5 - Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the Transport assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and;
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kip's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
Federal, State Government and other Regulating Bodies	• Regulation of Transport and its operations on specific assets tied to that body e.g. State Highways		Review of Best Practice and Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 – Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Legislation	Requirement
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
National Construction code	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.

Table 7 – Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective Transport Infrastructure and Systems which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Transport systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Transport Infrastructure based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Transport Services to users
Function	Ensure the Transport Infrastructure & Services meet Regulation conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Transport Infrastructure & Services to meet user requirements
Function/Accessibility	Ensure Transport Infrastructure & Services are available to occupied properties and other external users
Cost Effectiveness	Provide Transport Infrastructure & Services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition, such as maintenance grading, pothole repair etc.

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally, such as gravel resheeting, line marking, sign replacement, reseals etc.

- **Upgrade**
  The activities to provide a higher level of service (e.g. user access capacity, upgrading gravel road to sealed road etc.) or a new service that did not exist previously (e.g. green field road construction etc.).

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its ‘Intervention Level’. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Community Service Intervention Target

Each assets condition is kept in the Transport Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified relevant to Transport Services include:

- Asset Inspections
- Engineering Management
- Telemetry & Other System Monitoring
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations & delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils Transport Assets such as road network. Any specialised condition rating requirements will be undertaken by a specialist for example Structural Assessment of Bridges.

Below Ground Assets: Below ground Asset Inspections are undertaken by independent consultants and contractors that have the capacity and experience to do so. Below ground assets typically include culverts or drainage structures.

Classification	Asset	Frequency
Arterial – Such as regional roads	Sealed Roads	Fortnightly
Arterial Roads	Kerb & Gutter	Biannual
Arterial Roads	Footpaths	Annual
Sub-Arterial Roads	Sealed Roads	Yearly
Sub-Arterial Roads	Kerb & Gutter	Biannual
Sub-Arterial Roads	Footpaths	Annual
Collector Roads	Sealed Roads	Fortnightly
Collector Roads	Un-Sealed Roads	Biannual
Collector Roads	Kerb & Gutter	Annual
Collector Roads	Footpaths	Annual
Access Roads	Sealed Roads	Annual
Access Roads	Un-Sealed Roads	Annual
Convenience Links	Un-Sealed Roads	Annual
Service Track	Un-Sealed Roads	ADHOC

Table 10 - Summary of inspections

All condition assets are reviewed and recommended by external parties during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Vegetation Mowing	Monthly	Periodic
Road Maintenance Grading	Annually	Periodic

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to Transport infrastructure that has sufficient capacity for current and projected growth requirements
- Transport is managed in accordance with relevant guidelines and other Legislative requirements
- The operation of the Transport Infrastructure results in high quality services to customers

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

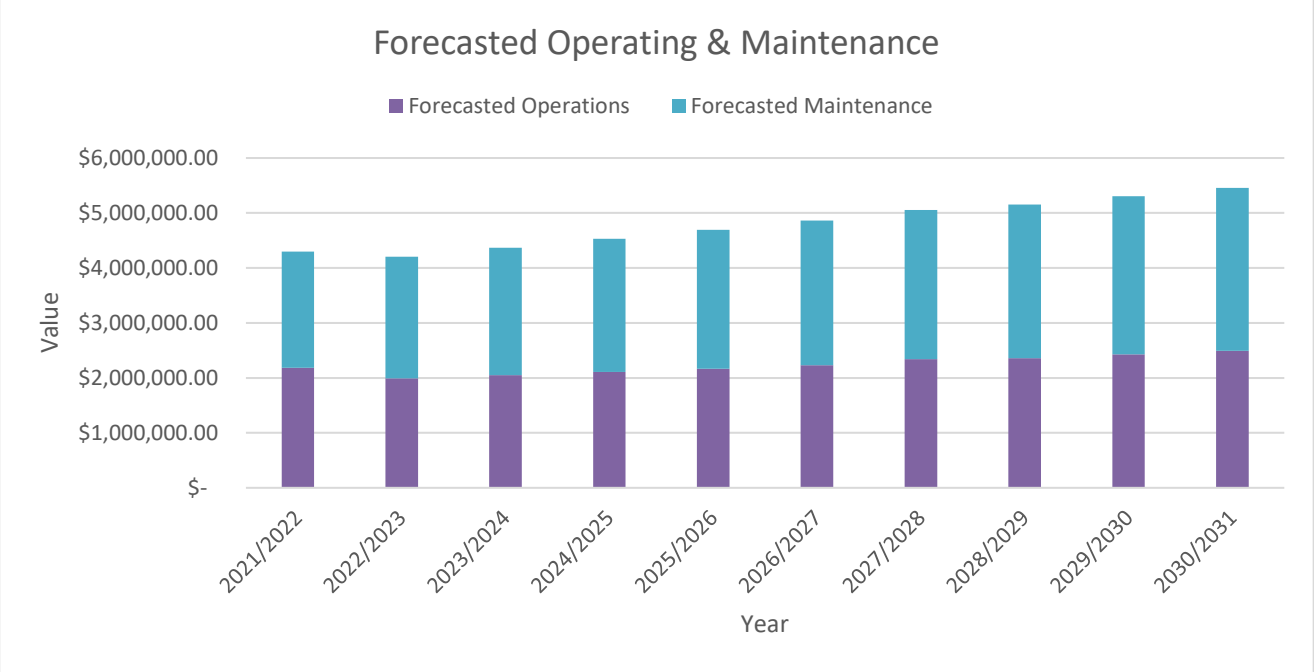

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

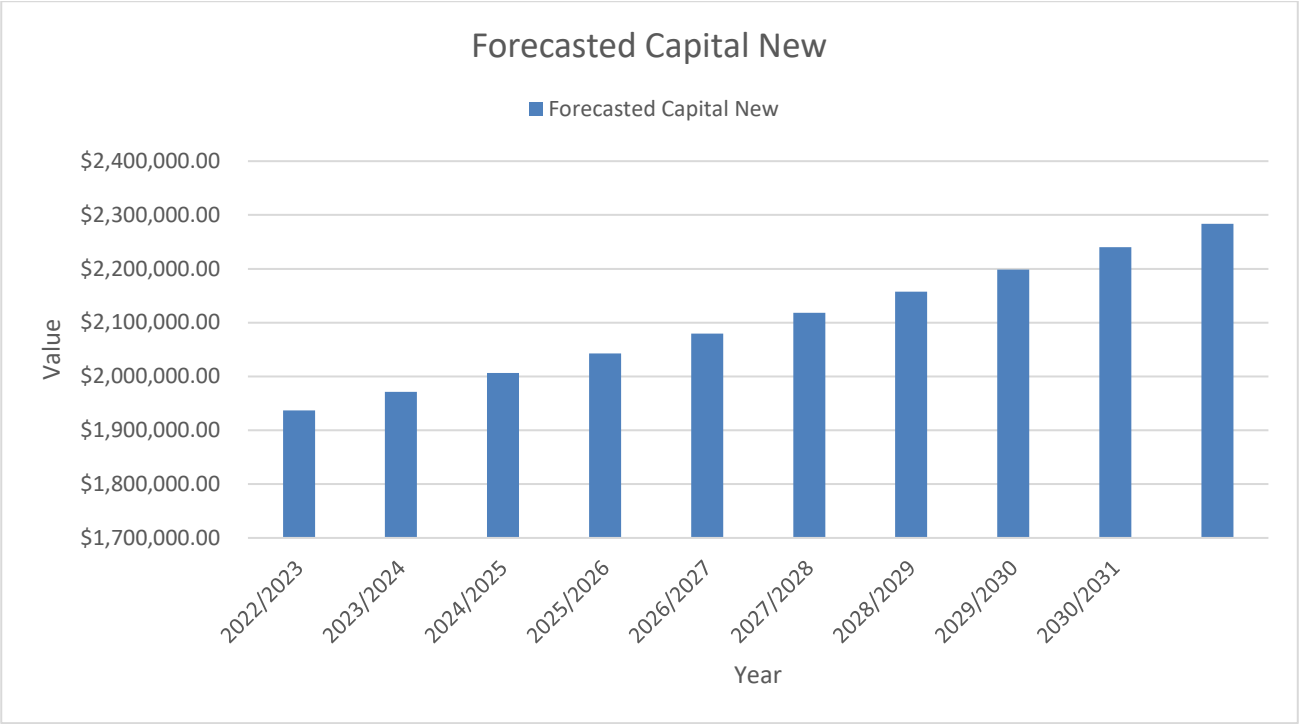

Figure 4 – Ten (10) Year Capital Works for Upgrades

Any construction work in accordance with hierarchy is classed as renewal.
A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.
It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g., resurfacing or Resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the ‘Expenditure Template”.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or

- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- AustRoad Guidelines
- Relevant Australian Standards
- Australian Research Board (ARRB) publications and Best Practice Guides

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $22,023,568 on renewals over the next ten years.

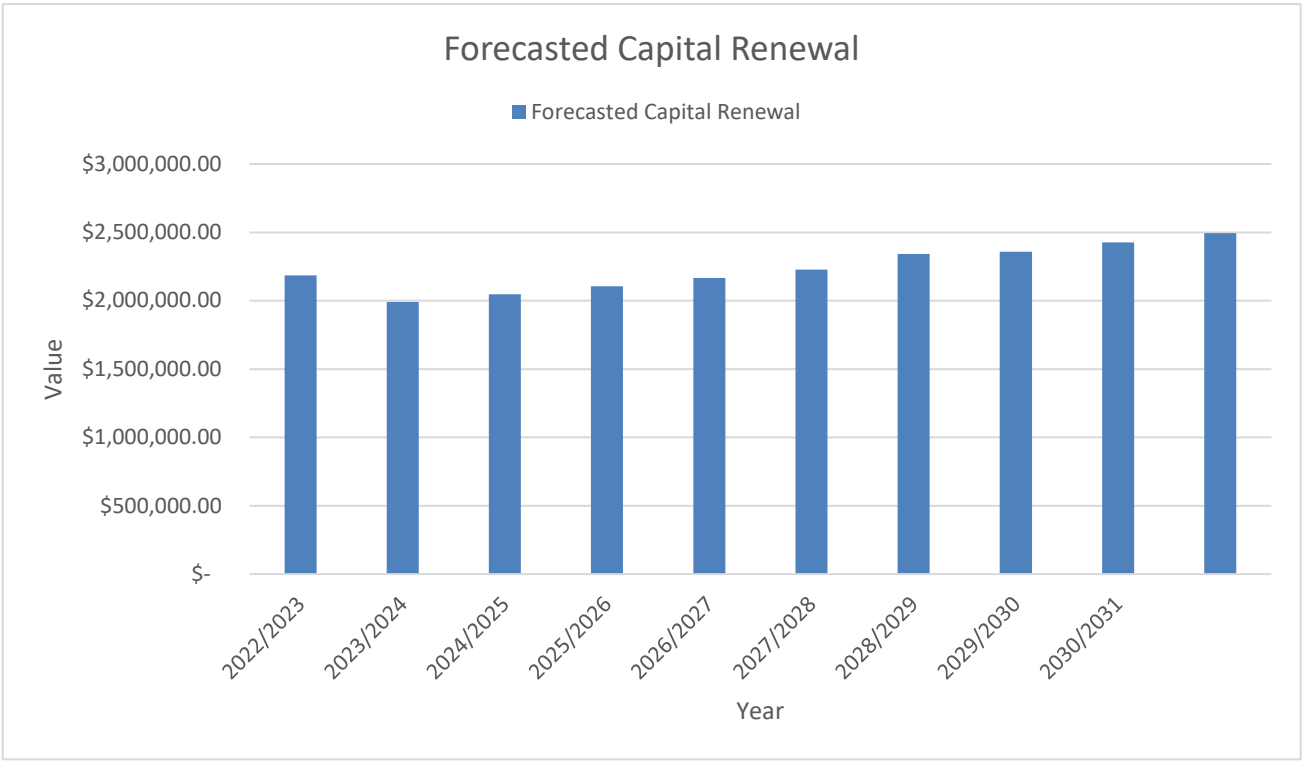

Figure 5 - Proposed Renewal Allocations Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

ABS census data statements regarding demand within the shire can be seen below:

2001:
On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area did not change during each period, however participation

14.2. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – Total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – Total data for dwellings in Township of Trangie

The study area has significantlyincreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – Total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.5. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the Transport related assets indicates that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of Transport assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.6. Demand Impacts on Assets

A steady development growth in Narromine as well as a change in interstate transport movement, will lead to an increase in usage through the existing network. Council must ensure they understand their network capacity requirements to allow for increased volumes, and changes in design vehicles.

14.7. Demand Management Plan

14.7.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major assets.

14.7.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine, Trangie and Tomingley. A clear understanding of the existing network capacity will be essential in this process.

14.7.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing network when considering demand increase due to development and interstate movements.
- Effective control over the assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.

- Review the history of development applications within existing suburbs of Narromine to more accurately predict infill development and the increased demand to the existing networks. Ensure existing network restrictions do not prevent land development and economic growth in Narromine.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

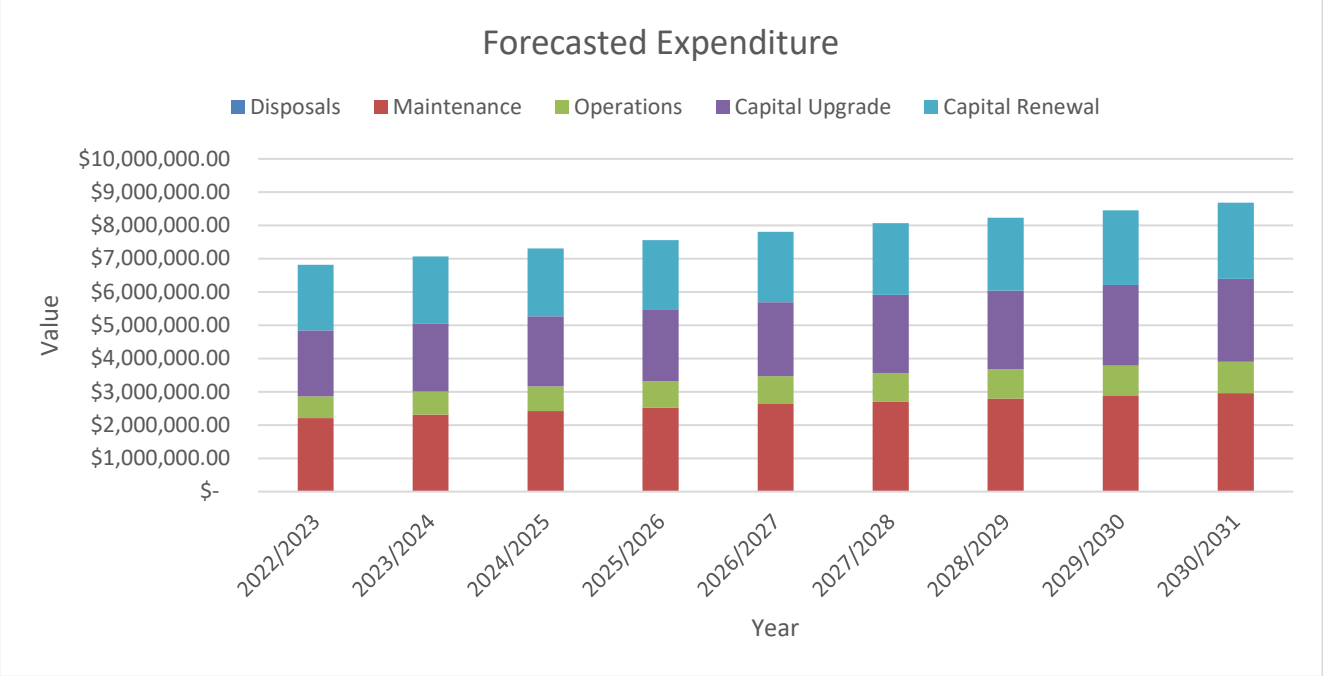

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measure	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
COMMUNITY LEVELS OF SERVICE							
Quality	Operational	Construct a road to the design standards and guidelines adopted	Customer Service request	<10 requests per month	Needs improvement	Excellent to Good	TBD
Function	Infrastructure	Ensure the requirements for travel time and availability	Customer service request relating to travel time and road conditions availability	95% compliance	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Ensure roads are safe, free from hazards as best reasonably practicable	Limit the number injury accidents /incidents	< 10 reported accidents per annual	Satisfactory	Excellent to Good	TBD
TECHNICAL LEVELS OF SERVICE							
Condition	Infrastructure / Operational	Provide a road that meets the minimum condition adopted	Sealed and unsealed condition inspections	Inspections as per Inspection Manual	Satisfactory	Excellent to Good	TBD
Function /Accessibility	Infrastructure	Legislative compliance	Provide access and service for all user groups	100% compliance	Satisfactory	Excellent to Good	TBD
Cost Effectiveness	Operational	Provide service in cost effective manner	Budget compliance	Expenses within budget	Satisfactory	Excellent to Good	TBD

Key Performance Measure	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
Safety	Health & Safety	Ensure safe roads, free from hazards as best reasonably practicable	Regular safety audits carried out, action customer request within 10 working days	Safety inspections – carried out monthly	Satisfactory /Ongoing	Excellent to Good	TBD

Table 16 – Key Performance Measures

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Reflect" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and;
- Producing work order.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council employs operators’ part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents; and
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan.
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services

In addition to the Asset Management Strategy, Table 16 includes improvements to the management and planning of Transport assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plant will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within3 the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Transport Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2023/24
18	Performance	Update the Roads Manual/Strategy to align with current practice	1	Mid 2022

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

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1. Appendix A: Ten Year Capital Works Program

RURAL ROAD RESEAL	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
RENEWAL										
RURAL ROAD RESEAL PROGRAM	615,484	633,948	652,966	672,555	692,732	713,514	734,920	756,967	779,676	803,067

RURAL ROAD RENEWAL PROGRAM	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
RENEWAL										
GRAVEL RESHEET PROGRAM	360,500	371,315	382,454	393,928	405,746	417,918	430,456	443,370	456,671	470,371
RURAL CULVERT REPLACEMENT PROGRAM	113,300	116,699	120,200	123,806	127,520	131,346	135,286	139,345	143,525	147,831

REGIONAL ROAD RESEAL PROGRAM	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
RENEWAL										
REGIONAL ROAD RESEAL PROGRAM	400,000	412,000	424,360	437,091	450,204	463,710	477,621	491,950	506,708	521,909

REGIONAL ROAD REPAIR GRANT	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
NEW, ACQUISITION AND/OR UPGRADE										
CAPITAL UPGRADE PROGRAM	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000

URBAN ROAD RESEALS	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
NEW, ACQUISITION AND/OR UPGRADE										
NARROMINE	90,000	92,700	95,481	98,345	101,296	104,335	107,465	110,689	114,009	117,430
TRANGIE	40,000	41,200	42,436	43,709	45,020	46,371	47,762	49,195	50,671	52,191
TOMINGLEY	16,544	17,040	17,552	18,078	18,620	19,179	19,754	20,347	20,957	21,586

FOOTPATHS	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2026/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
NEW, ACQUISITION AND/OR UPGRADE										
NARROMINE	87,926	90,564	93,281	96,079	98,961	101,930	104,988	108,138	111,382	114,724
TRANGIE	43,963	45,282	46,640	48,039	49,480	50,965	52,494	54,069	55,691	57,362
TOMINGLEY	14,654	15,094	15,546	16,013	16,493	16,988	17,498	18,023	18,563	19,120

BRIDGES (OPERATIONAL)	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
NEW, ACQUISITION AND/OR UPGRADE										
BRIDGE STRATEGY CAPITAL PROGRAM	250,000	250,000	0	0	0	0	0	0	0	0
ANNUAL BRIDGES MAINTENANCE PROGRAM	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000

OTHER GRANTS	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
RENEWALS										
LRCIP3 – ROADS	999,380									
LRCIP3 – FOOTPATHS	200,000									
RFR8	1,575,222									
ROADS TO RECOVERY	909,690									
STORM AND FLOOD	2,500,000									

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Buildings
(AMP7)

Contents

1. Executive Summary

Council's intention is to provide the Shire with Buildings services via infrastructure that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Buildings Services had a fair value of approximately $39,935,063 on the 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the Buildings assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan;
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan;
- Ensures the management of Buildings infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan;
- 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; and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 5.78% of these assets are Buildings assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2. Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff

1.3. Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4. Building Assets

Narromine Shire Council provides Building infrastructure and services to the township of Narromine, Trangie and Tomingley.

The supply of buildings services is critical to community. It is critical that systems do not deteriorate to a level where community users are at risk or compromised.

1.5. Buildings Services

In summary, the Buildings Services comprise of the following major assets:

- Civic Buildings
- Community Buildings
- Recreation Buildings
- Public Amenities / Storage
- Leased Buildings
- Other equipment

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Civic Buildings	Ea.	17	30
Community Buildings	Ea.	31	30
Recreational Buildings	Ea.	56	20
Public Amenities / Storage	Ea.	18	30

Table 1 – Major Assets

While a number of assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

1.6. Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable Buildings services to its customers and environment and to meet legislative requirements.
2. Operate, maintain, renew and the upgrade of infrastructure within this class as mentioned to meet service levels set by Council and to meet statutory requirements; and
3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations)

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

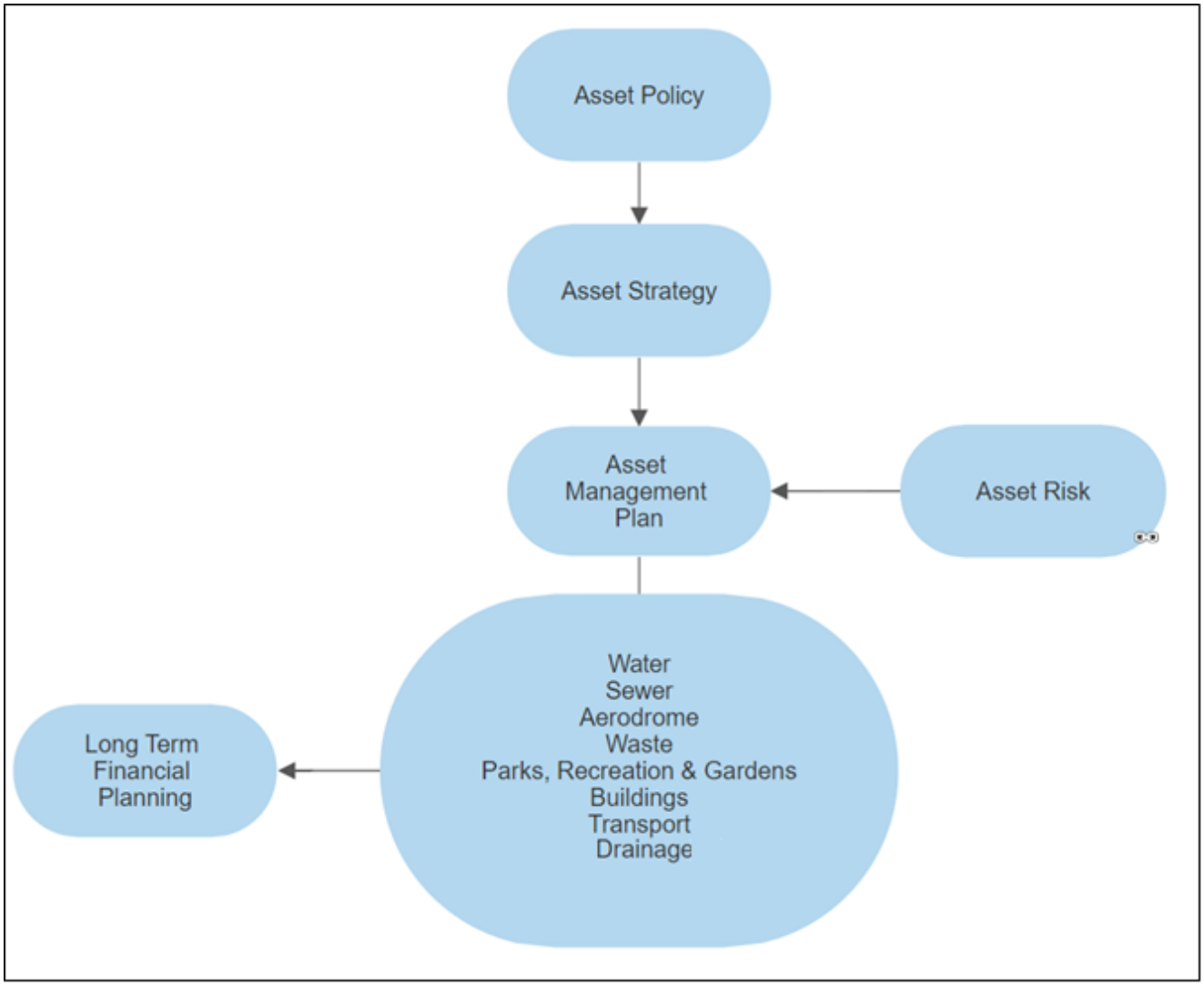

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Buildings assets have been condition rated externally during a revaluation.

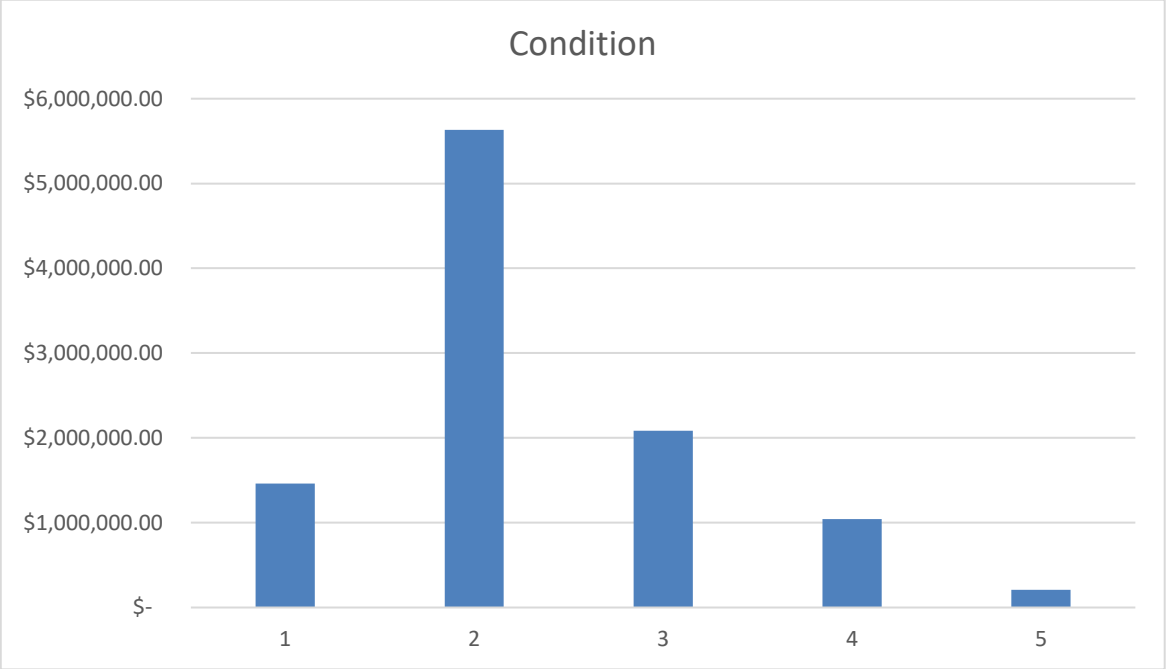

Figure 2 - Asset Condition

3.2. Other Criteria

The process of managing our Buildings assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Buildings Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across board. These Practices have been outlined in the Asset Management Strategy.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Management Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition
Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity
Western NSW Regional & Local Road Plan	Deals with strategic improvements to the Narromine Shire Council
Pedestrian Access and Mobility Plan 2012.	Recommends a range of pedestrian improvements throughout the towns, many of which have been implemented

Defect Operations Management Plan	Plan that outlines the details associated with management of defects and REFLECT system.

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the community of Narromine with Buildings Infrastructure and Services that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in Appendix A. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Civic Buildings	ea.	17	30
Community Buildings	ea.	31	30
Recreational Buildings	ea.	56	20
Public Amenities / Storage	ea.	18	30

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Asset Class	Component	Useful Life
Buildings	Sub-structure	50.00
Buildings	Super structure	50.00
Buildings	Finishes	15.00
Buildings	Fittings	10.00
Buildings	Services	25.00

Table 4 – Useful Life

6.3. Classification

The classifications of Buildings Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Class	Description	Image	Function	Examples
1	Civic buildings		• House the corporate and/or administrative functions of council • Occupied more than 30 hours per week • Occupied by Permanent Council staff • Require a high standard of presentation, access, safety and maintenance • Buildings that require access and facilities for the disabled	Council Chambers, Administration buildings, Depots, Rural Fire Service and State Emergency Services, Hub'n'Spoke, Medical Centre Trangie Doctors Surgery
2	Community buildings		• Used regularly by Council staff or the public • Occupied more than 30 hours per week • Buildings that owned by council but are leased • Buildings that require access and facilities for the disabled	Libraries, Museums, Commercial premises
3	Recreation buildings		• House community and cultural activities • Occupied less than 30 hours per week • Do not require the highest standards of presentation	Community Centres, Halls, Club houses, grandstands, Pavilions,
4	Amenity/storage buildings		• Used for storage, workshops, and other operational uses • Only occupied for short periods • May not be fully enclosed	Toilet blocks, Storage sheds, warehouses, Treatment plant, shade shelters
5	Leased Buildings		• Buildings that house community and cultural activities, with the community groups providing minor maintenance and cleaning. • Buildings that are leased, with the lessees determining the day-to-day requirements of the building. Buildings that are not accessed by Council staff unless requested to do so.	

Table 5 - Classification

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the Buildings assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and;
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work. • Regular benchmarking and quality management and measuring kip's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
Federal, State Government and other Regulating Bodies	• Regulation of Buildings and its operations on specific assets tied to that body e.g. State Highways		Review of Best Practice and Provision of Capital Funding via Grants
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads		Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 - Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure;
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Policy and Strategic Plan. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Legislation	Requirement
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
National Construction code	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.
Children and Young Persons (Care and Protection) Act 1998	Provides protection of children in public spaces.
Building Code of Australia (National Construction Code)	Provides for the achievement and maintenance of acceptable standards of structural sufficiency, safety, health and diversity for the community now and in the future.

Table 7 - Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective Buildings Infrastructure and Systems which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Buildings systems is acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Buildings Infrastructure based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Council's current service targets are in Table 8; Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Buildings Services to users
Function	Ensure the Buildings Infrastructure and Services meet Regulation conditions
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Buildings Infrastructure & Services to meet user requirements
Function/Accessibility	Ensure Buildings Infrastructure & Services are available to occupied properties and other external users
Cost Effectiveness	Provide Buildings Infrastructure and Services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 - Community Service Target

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition, such as window and door treatments, electrical, testing and tagging, fire safety etc.

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally, such as electrical, painting, furniture, fire safety etc.

- **Upgrade**
  The activities to provide a higher level of service or a new service that did not exist previously.

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 9.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level'. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 - Intervention Levels

Each assets condition is kept in the Buildings Asset Register and is maintained on a cyclic basis.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified relevant to Building Services include:

- Asset Inspections
- Land Rates
- Electricity
- Engineering Management
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations and delivery.

A full list of condition inspections is outlined in the inspection program, currently under development in conjunction with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils Buildings Assets such as external fixtures, flooring etc. Any specialised condition rating requirements will be undertaken by a specialist for example Structural Assessment of Buildings.

Below Ground Assets: Below ground Asset Inspections are undertaken by independent consultants and contractors that have the capacity and experience to do so. Below ground assets include electrical connections.

Inspection	Frequency
Condition Assessments of all Above Ground Assets	Annually
Buildings	Annually
Road Network	Annually
Plant and Equipment	Daily
Security Fencing	Annually
Condition inspection of failed asset (i.e. electrical) incl condition rating	Per occurrence

Table 10 - Summary of inspections

All condition assets are reviewed and recommended by external parties during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

TASK	Classification				
	1	2	3	4	5
Service and maintain sprinkler and hydrant fire system	Annual	Annual	Annual	NA	NA
Inspect and service air conditioning	Annual	Annual	Annual	NA	NA
Inspect gutter systems and clear as necessary	Annual	Annual	Annual	Annual	NA
Automatic door service	As Required	As Required	As Required	NA	NA
Inspect emergency lighting systems and smoke detectors	Annual	Annual	Annual	Daily	NA
Vermin inspection and laying of baits	Biannual	Biannual	Biannual	As Required	NA
Check & tag fire extinguishers	Annual	Annual	Annual	NA	NA
Clear trees and foliage from roofing and building	As Required	As Required	As Required	As Required	NA
Termite inspection (where applicable)	As Required	As Required	As Required	NA	NA
Clean amenities	Daily	Daily	Daily	NA	NA
General Cleaning	Daily	Daily	Daily	NA	NA

Table 11 - Planned Maintenance Activities and Frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to Buildings infrastructure that has sufficient capacity for current and projected growth requirements
- Buildings are managed in accordance with relevant guidelines and other Legislative requirements
- The operation of the Buildings Infrastructure results in high quality services to customers

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

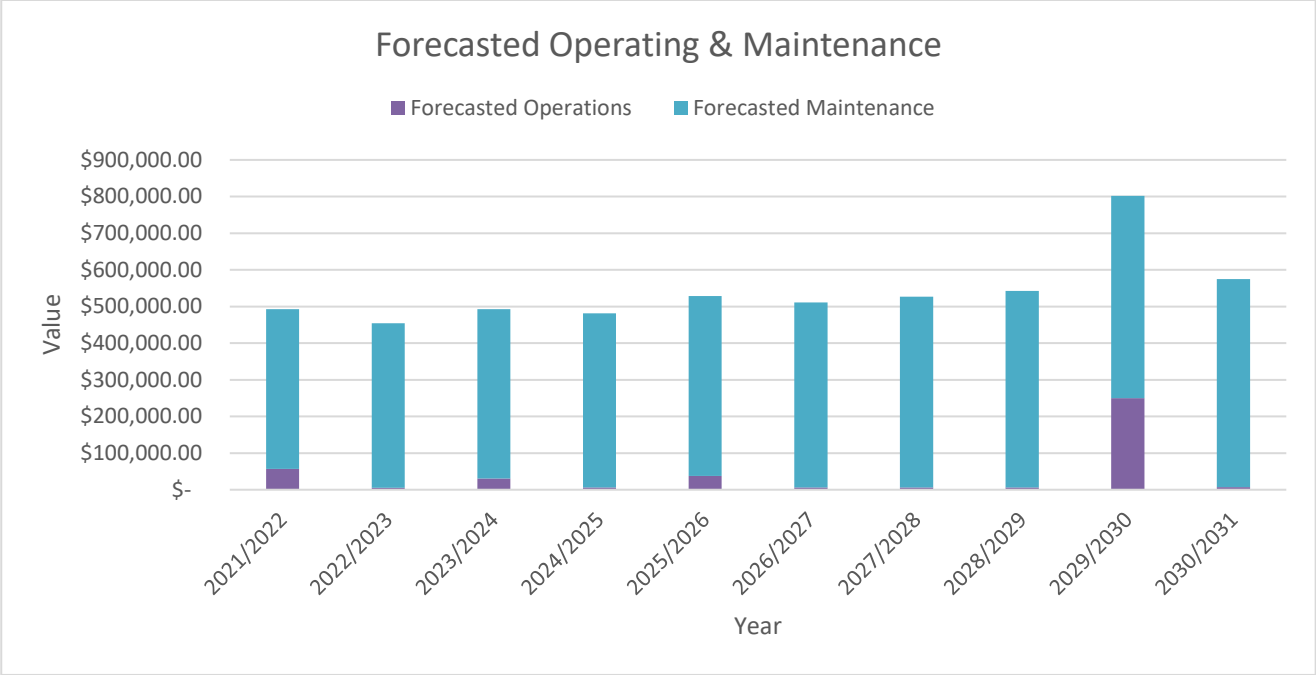

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

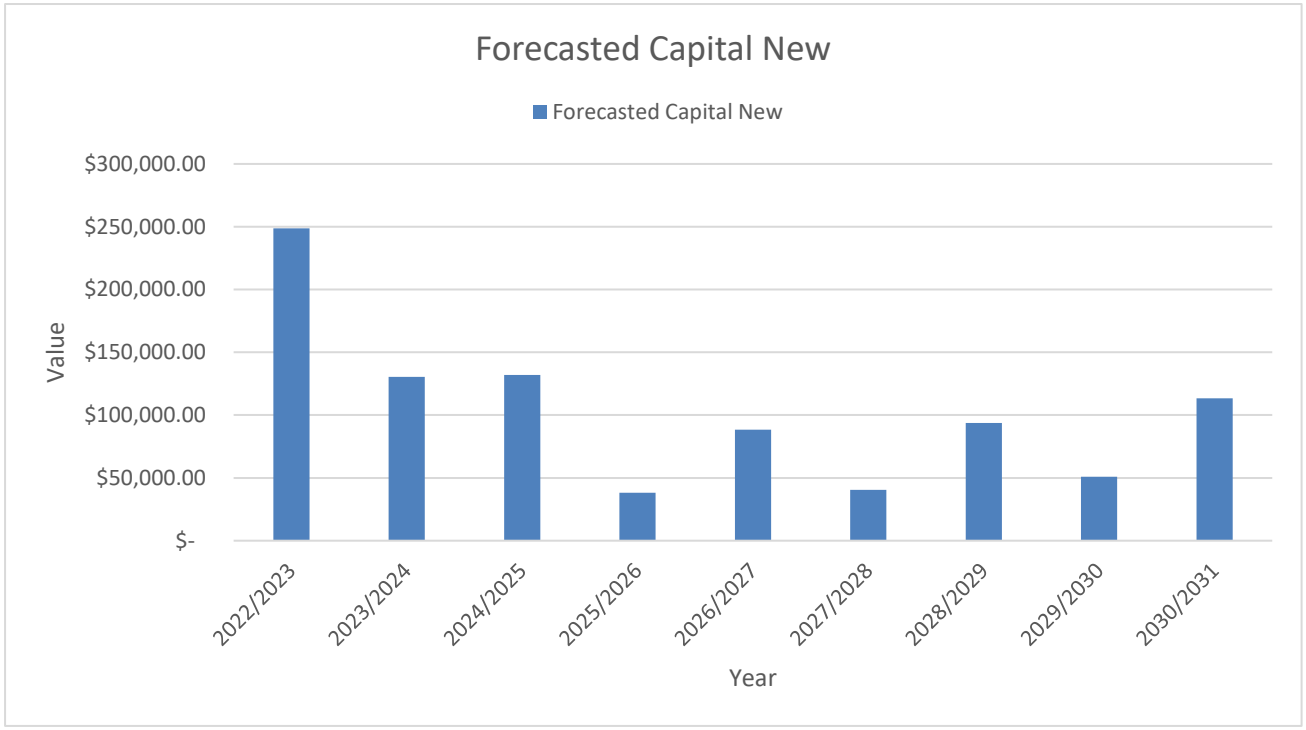

Figure 4 – Ten (10) Year Capital Works for Upgrades

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.

It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life.

As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the 'Expenditure Template".

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- National Construction Code
- Relevant Australian Standards
- Supplier Specifications

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $1,864,892 on renewals over the next ten years.

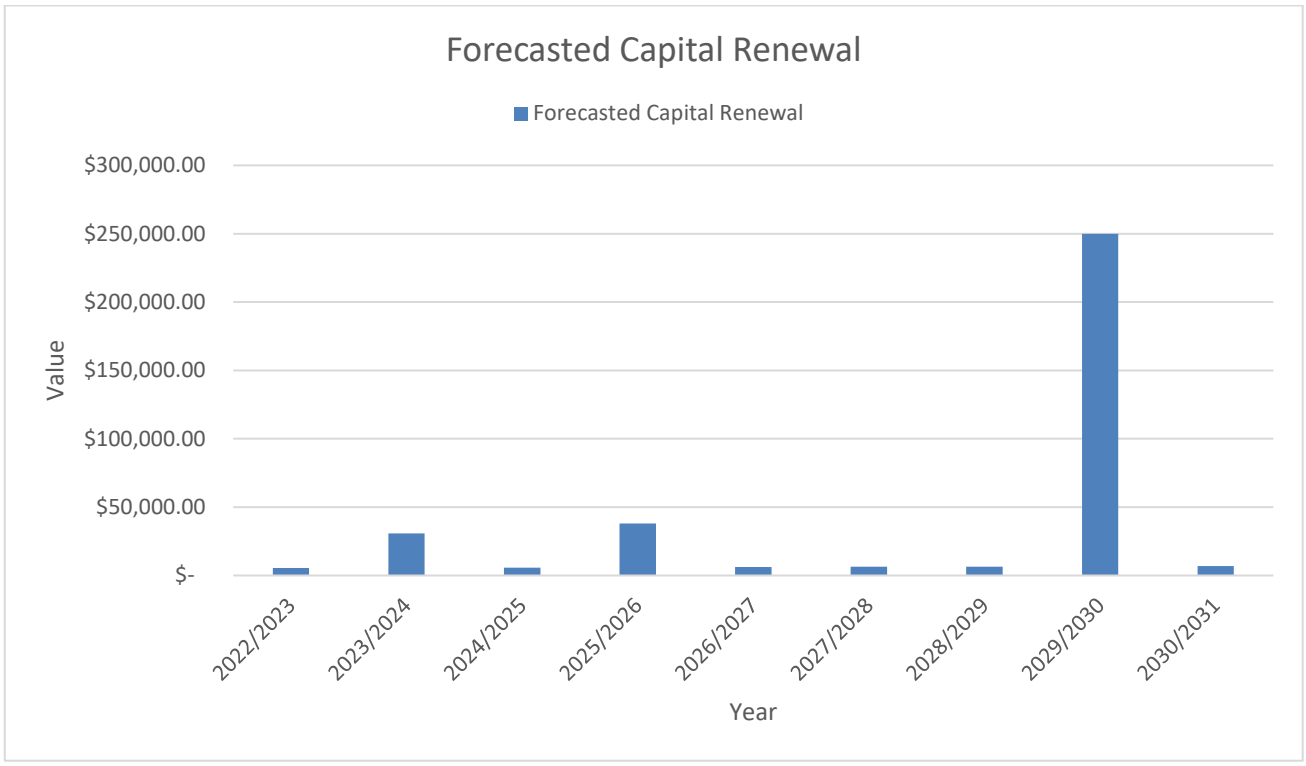

Figure 5 - Proposed Renewal Allocations Program

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for the disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

ABS census data statements regarding demand within the shire can be seen below:

2001:
On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area, for Narromine Shire, did not change during each period.

14.2. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – Total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – Total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Narromine's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – Total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.5. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the Buildings related assets indicates that expectations increase over time, particularly in areas that impact on risk. Information on community expectation of Buildings assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.6. Demand Impacts on Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in usage through the existing network. Council must ensure they understand their network capacity requirements to allow for increased volumes.

14.7. Demand Management Plan

14.7.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major assets.

14.7.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine and Trangie. A clear understanding of the existing network capacity will be essential in this process.

14.7.3. Key Considerations/Recommendations

- Conduct studies to identify capacity constraints in the existing network when considering demand increase due to infill development.
- Effective control over the assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

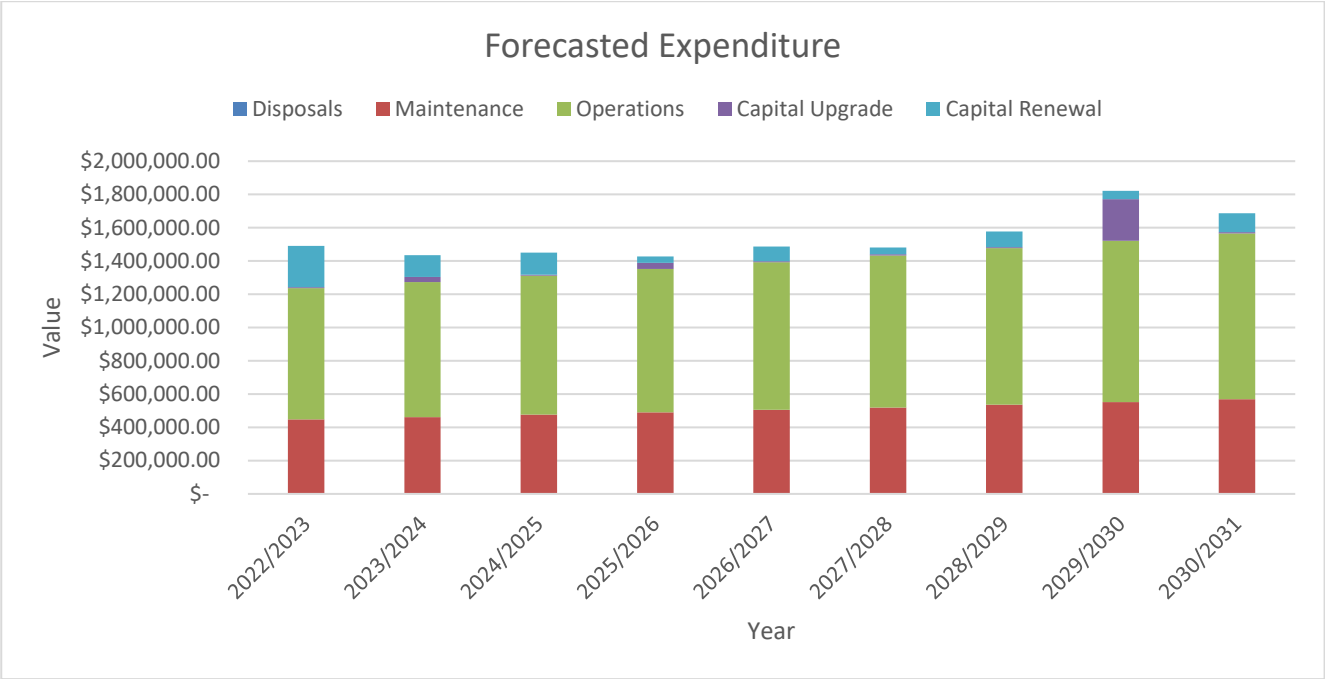

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;
- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Funding Strategy

Projected expenditure identified in Appendix A is to be funded from future operating and capital budgets. The funding strategy is detailed in the organisation's 10-year long-term financial plan.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measure	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
COMMUNITY LEVELS OF SERVICE							
Quality	Operational	Provide clean accessible well-maintained facility	Customer services requests/complaints, customer surveys	<5 complaints per year/per building	Satisfactory	Excellent to Good	TBD
Function	Infrastructure	Facilities are fit for purpose, meet users' requirements & industry regulatory standards	Customer service requests/complaints, customer surveys	< 3 complaints per year/per building	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Ensure facilities are safe	Reported accidents	Zero reported accidents	Satisfactory	Excellent to Good	TBD
TECHNICAL LEVELS OF SERVICE							
Condition	Operational	Building/Office equipment / Furniture & Fittings/ Other Equipment functionality is not compromised by condition	Regular condition inspections	Allocate appropriate funding and resources	Satisfactory	Excellent to Good	TBD
Function / Accessibility	Health & Safety / Operational	Legislative compliance	Provide access and service for all user groups	100% compliance	Satisfactory	Excellent to Good	TBD

Key Performance Measure	Capability Considerations	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Services (4 Years)	Current Performance Measures
Cost Effectiveness	Operational	Provide service in cost effective manner	Budget compliance	Expenses within budget	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Ensure facilities are safe	Regular safety audits carried out, action customer request within 5 working days	Safety inspections: - Electrical tagging/testing as per standards, Legislative audit. - Safety inspection, 6 months/annually - Defects repaired within approved timeframes	Satisfactory/ Ongoing	Excellent to Good	TBD

Table 16 - Performance Measures

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority" and "Konnect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and;
- Producing work order.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council currently employs operators as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents;
- The degree to which the 5-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan; and
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services.

In addition to the Asset Management Strategy, Table 17 includes improvements to the management and planning of Buildings assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the performance will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 16.

The improvement plant will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within3 the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2021/22
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Buildings Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2023/24

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

Planning.nsw.gov.au. 2022. *Projections*. [online] Available at: <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Projections> [Accessed 28 April 2022].

1. Appendix A: Ten Year Capital Works Program'

COMMUNITY BUILDINGS	1 2022/23	2 2023/24	3 2024/25	4 2024/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Narromine, Waste Facility, Staff Room - INTERNAL WALLS & ROOFING - REHAB / REPLACEMENT										6,720
Narromine, Waste Facility, Staff Room - INTERNAL FLOORING - REHAB / REPLACEMENT										6,720
CALE OVAL - CLUB HOUSE, GRANDSTAND & FACILITIES	144,722									
NEW TENNIS COURT CLUBHOUSE	437,351									
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM	2,060		2,185.45		2,319		2,460		2,610	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,122		2,251		2,388		2,534		2,688
Aeroclub - STRUCTURE - UPGRADES		73,153								
Aeroclub - INTERNAL - UPGRADES			316,512							
TRANGIE										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM	5,150									
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM	2,060		2,185		2,319		2,4560		2,610	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,122		2,251.02		2,388		2,534		2,688

CIVIC BUILDINGS	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Council Chamber - ROOF - RENEWAL / REHAB	61,800									
Council Chamber - FLOORING - RENEWAL / REHAB										65,222
Council Chamber - INTERNAL WALLS & ROOFING - RENEWAL / REHAB										40,317
Council Chamber - FIXTURES - RENEWAL / REHAB	18,684									
Council Chamber - FENCING - RENEWAL / REHAB										
Administration Buildings - ROOF - RENEWAL / REHAB				9,701						
Administration Buildings - FLOORING - RENEWAL / REHAB										40,317
Administration Buildings - INTERNAL WALLS & ROOFING - RENEWAL / REHAB										40,317
Administration Buildings - FIXTURES - RENEWAL / REHAB				15,417						
Administration Buildings - FENCING - RENEWAL / REHAB										
Council Chamber Rear Shed - INTERNAL WALLS & ROOFING & ROOFING - RENEWAL / REHAB										
Council Chamber Rear Shed) - FLOORING - RENEWAL / REHAB										
CAPITAL ACQUISITION, NEW AND/OR UPGRADE										
Council Chamber - REAR SHED FLOORING	20,000									
AIR CONDITIONING CAPITAL UPGRADE PROGRAM		5,304								
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM	2,060		2,185		2,318		2,459		2,609	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,121		2,251		2,388		2,533		2,687
Administration Buildings - EXTERNAL WALLS - UPGRADE				29,848						
Administration Buildings - MODIFICATIONS TO BUILDING - UPGRADE		22,876								

CIVIC BUILDINGS	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
TOTAL EXPENDITURE ON EXISTING ASSETS	80,484			25,119						186,175

NARROMINE DEPOT	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
28328 - NARROMINE DEPOT WORKSHOP (147.981106, -32.032811) - INTERNAL FITTINGS - RENEWAL / REHAB				20,600		20,600				
NARROMINE DEPOT (147.981106, -32.032811) - WEARING SURFACE - RENEWAL / REHAB										23,185
NARROMINE DEPOT (147.981106, -32.032811) - LINE MARKING - RENEWAL / REHAB		20,802							25,000	
			45,000		22,619					
TRANGIE										
28501 - TRANGIE DEPOT (147.981106, -32.032811) - INTERNAL FITTINGS - RENEWAL / REHAB		4,200								
28501 - TRANGIE DEPOT (147.981106, -32.032811) - WEARING SURFACE - RENEWAL / REHAB										10,000
CAPITAL ACQUISITION, NEW AND/OR UPGRADE										
NARROMINE										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM									39,393	
ELECTRICITY CAPITAL UPGRADE PROGRAM										
EQUIPMENT CAPITAL UPGRADE PROGRAM	6,180							25,860		
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM	2,000		15,000							
STORE OFFICE UPGRADE	10,300									
STORES UPGRADE	30,900									
SKILLION ROOFING NARROMINE DEPOT	15,000.00									
TRANGIE										
DEPOT BUILDING UPGRADES										
DEPOT PARKING FLOORING UPGRADES										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM										
ELECTRICITY CAPITAL UPGRADE PROGRAM										

NARROMINE DEPOT	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
EQUIPMENT CAPITAL UPGRADE PROGRAM										
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM										

LIBRARY	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Narromine, Narromine Library - INTERNAL FLOORING - RENEWAL / REHAB		51,931								
TRANGIE										
Trangie, Trangie Library, - INTERNAL FLOORING - RENEWAL / REHAB						31,941				
- -										
CAPITAL ACQUISITION, NEW AND/OR UPGRADE										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM					5,796					
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM	2,060		2,185		2,319		2,460		2,610	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,122		2,251		2,388		2,534		2,688

MEDICAL CENTRE	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2026/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
CAPITAL ACQUISITION, NEW AND/OR UPGRADE										
Narromine										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM										
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM	9,270		2,185		2,318		2,459		2,609	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,121		2,251		2,388		2,533		2,687
Trangie										
AIR CONDITIONING CAPITAL UPGRADE PROGRAM		5,304								
ELECTRICITY CAPITAL UPGRADE PROGRAM		10,609								
EQUIPMENT CAPITAL UPGRADE PROGRAM			2,185		2,318		2,459		2,609	
SECURITY & SAFETY SYSTEMS CAPITAL UPGRADE PROGRAM		2,121		2,251		2,388		2,533		2,687

PUBLIC AMMENITIES	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2026/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
Cemetery (Dappo Rd) Cemetery Toilet Block,	5,150									
Narromine Waste Facility (Gainsborough Rd) Narromine WMF		5,305								
Noel Powell Ovals (Culling St) Noel Powell Toilet			5,464							
Narromine, Cale Oval Toilet Block					5,796					
Narromine, Dundas Park Toilet Block						5,970				
Narromine, Toilet Block, Showground								6,334		
Narromine, Dundas Park Toilet Block									6,524	
Narromine, Payten Park Toilet Block										6,720
Tomingley Cemetery (Tomingley Cemetery Rd) Cemetery Toilet	5,150									

Narromine
SHIRE COUNCIL

Draft
Asset Management Plan
Drainage
(AMP8)

Contents

1. Executive Summary

Council provides urban drainage services across the Narromine, Trangie and Tomingley communities through the drainage collection network and rural road culverts. The drainage network had a fair value of $23,267,606 on the 30 June 2021.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can be used in determining the levels of service, program scheduling and funding requirements etc.

This Plan should be read in conjunction with the following related planning documentation:

- Narromine Shire Council - Community Strategic Plan
- Narromine Shire Council – Delivery Program
- Narromine Shire Council – Operational Plan
- Narromine Shire Council – Asset Management Strategy
- Narromine Drainage Strategy and Trangie Drainage Strategy

1.1. Goals and Objectives of asset ownership

Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Over time Council has acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

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

Council operates and maintains the drainage assets to achieve the following strategic objectives:

- Provides infrastructure to a standard that supports the outcomes identified in Council's Community Strategic Plan.
- Ensures that the system is maintained at a safe and functional standard, as set out in this Asset Management Plan.
- Ensures the management of drainage infrastructure assets, to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan.
- 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, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed

Of the $305,431,308 (CV) of assets Council owns and/or is responsible for maintaining, 7.72% of these assets are water assets covered in this plan.

In the Community Strategic Plan 2032, Council has identified 4 priority themes with related goals and objectives that relate to the management of their assets. These are outlined in the Asset Management Strategy and shown below:

1. Vibrant Communities
2. Growing Our Economy
3. Protecting and Enhancing Our Environment
4. Proactive Leadership

1.2. Stakeholders

The stakeholders identified for this plan and its implementation are, but are not limited to:

- The Community – Ratepayers, Businesses, etc;
- Developers;
- Regulators;
- Councillors; and
- Council Staff

1.3. Plan Framework

The key elements of the plan are:

- Levels of Service;
- Future Demand;
- Life Cycle Management;
- Financial Summary;
- Asset Management Practices;
- Monitoring; and
- Asset Management Improvement Plan.

1.4. Drainage Services

Narromine Shire Council provides drainage services to the township of Narromine, Trangie and Tomingley.

In Narromine, 8 separate sub catchments exist within the urban environment which drain to individual outlets including natural detention basins. For flows of the water see the Narromine Drainage Strategy.

In Trangie, 2 separate sub catchments exist within the urban environment and only a single underground pipe network exists. For information about the strategic direction of Trangie see the Trangie Drainage Strategy. Very little fall exists within the highest point and the catchment outlet.

The supply of drainage services is critical to community and environmental health as well as to protect assets. It is critical that systems do not deteriorate to a level where community or environmental health, or assets, are at risk or compromised.

In summary, the drainage collection network comprises of the following major assets:

- Underground Pipe network
- Lined Open Channel Drainage
- Unlined Open Channel Drainage
- Kerb and Gutter incl. pits
- Gross Pollutant Traps
- Detention Basins
- Retention Basins
- Urban Drainage Culverts
- Rural Drainage Culverts

A breakdown of the major assets is given in the table below:

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Lined Open Channel Drainage	Km	0.90	30
Urban Unlined Open Channel Drainage	Km	29.42	NA
Kerb and Gutter incl. pits	Km	79.45	30
Gross Pollutant Traps	Ea.	1	10
Detention Basins	Ea.	10	NA
Retention Basins	Ea.	2	NA
Rural Drainage Culverts	Ea.	751	30
Urban Drainage Culverts	Ea.	421	30

Table 1 – Major Assets

For the purposes of this plan, rural unlined drainage, better known as table drains are not included.

While several assets have been renewed as part of an ongoing asset renewal or replacement program, some assets are nearing its end of theoretical useful life and will require replacement or renewal. Development pressures due to growth, further puts additional strain on existing assets.

Our Commitment

Council plans to provide the following:

1. Provide safe, reliable and sustainable drainage services to its customers and environment and to meet legislative requirements
2. Operate, maintain, renew and the upgrade of infrastructure to meet service levels set by Council and to meet statutory requirements and
3. Within a 10-year planning horizon, and going forward, continue with the implementation of relevant strategies and long-term plans to ensure a sustainable business.

It should be appreciated that Council does not have sufficient funds in the Reserve to provide some services to the desired service levels (technical or community expectations)

Works and services that cannot be provided under present funding levels, include substantial expansion of services into presently un-serviced areas without substantial investigation or capital expansion.

Council will continue to apply for funding from various agencies for asset renewal, replacement or upgrades.

2. Planning Framework

A planning framework outlines how conceptually the strategic plan will be based. Framework details the activities that are performed within the organisation's strategy plan.

Key elements of this framework are:

- Levels of Service
- Future Demand
- Life Cycle Management
- Monitoring

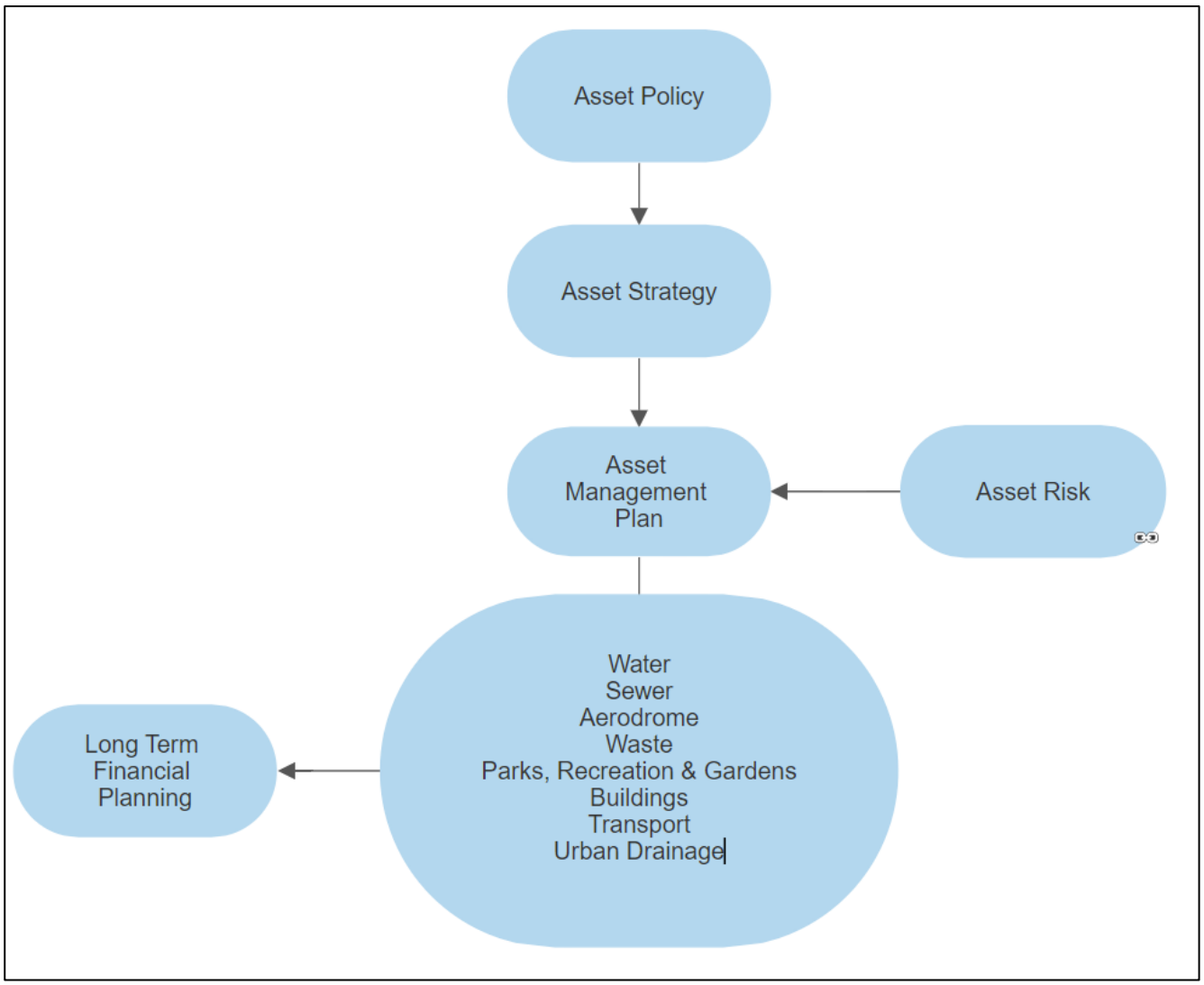

Figure 1 – Asset Management Framework

3. Asset Conditions

3.1. Value Based

The current condition of our assets is shown in Figure 2 based on the value of each asset in each of the 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a completely failed asset. Drainage assets have been condition rated externally during a revaluation.

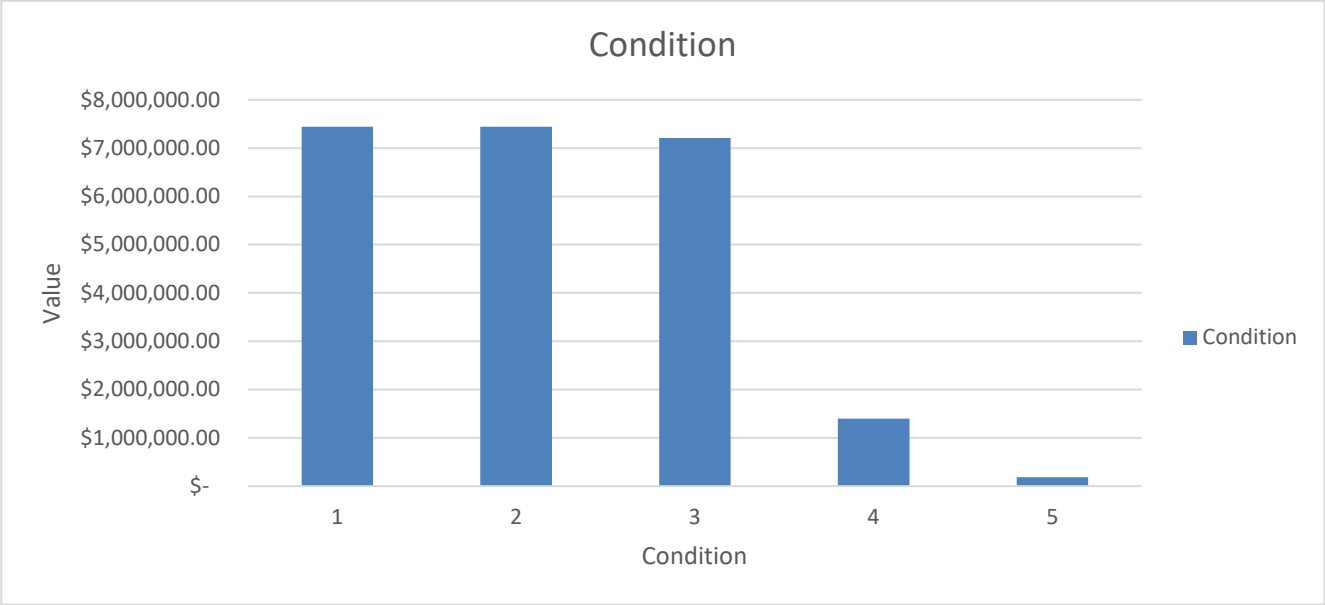

Figure 2 - What condition are our assets in

3.2. Other Criteria

The process of managing our Drainage assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level.

Customer request data is analysed during the Asset Performance evaluation and Operational Management of the Asset and not used for determining the condition of an asset.

The attached Asset Register contains the condition of assets.

4. Future Planning for Drainage Assets

Table 17 conveys the list of planned required improvements for this Asset Class in relation to asset management principles.

Asset Management Practices

Asset Management Practices are generally uniform across the board. These Practices have been outlined in the Asset Management Strategy.

Ultimately, final decisions and management of Assets are to be conducted by the Councillors, General Manager and Directors, this plan and others are only to guide Council on decisions to be made.

5. Supporting documentation

Supporting documentation is presented in the table below

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community.
Council Asset Management Policy	How we manage assets.
Asset Management Strategy	Overall direction of asset management and portfolio summary.
Asset Management Manual	Procedures and Processes that guide the management of assets.
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions.
Enterprise Risk Management Plan	The identification and management of strategic risks across Council operations
Asset Management System (CIVICA)	Electronic system that contains the asset register, condition ratings and uses to model future renewals.
Maintenance Program	Document outlining all scheduled maintenance requirements for the financial year as set out by the Asset Management Plan
GIS (Map Info / QGIS / Intramaps)	Geographical information system that produces maps of assets.
Narromine Drainage Strategy	Strategy relating to the urban stormwater flow within the township of Narromine
Trangie Drainage Strategy	Strategy relating to the urban stormwater flow within the township of Narromine
Drainage Model	Model that defines the levels of the township of Narromine and includes the catchment flows
Business Continuity Plan	Outlines Council's procedures relating to emergencies in association with certain events.
Macquarie River Flood Plain Risk Management	Risk Management associated with the potential Macquarie River flooding
Asset Acquisition Plan	Plan outlining the processes for acquiring Assets and required approvals prior to doing so, excluding development acquisition

Asset Disposal and Transfer Plan	Plan outlining the processes for disposal and transferring of Assets and required approvals prior to doing so
Complete Asset Management System (CAMS)	NATSPEC documentation outlining the CAMS associated with the operational activities for the Asset Class and measuring the performance of the activity

Table 2 - Supporting Documentation

6. Services Provided and their Classification

6.1. Services Provided

Council provides the communities of Narromine, Trangie and Tomingley with drainage systems that meet current standards as outlined in our customer levels of Service.

Assets covered within this Asset Management Plan can be seen in Appendix. The following table is a summary of these assets.

Asset Description	Unit of Measurement	Units	Average Asset Age (Years)
Lined Open Channel Drainage	Km	0.90	30
Urban Unlined Open Channel Drainage	Km	29.42	NA
Kerb and Gutter incl. pits	Km	79.45	30
Gross Pollutant Traps	Ea.	1	10
Detention Basins	Ea.	10	NA
Retention Basins	Ea.	2	NA
Rural Drainage Culverts	ea.	751	30
Drainage Culverts	ea.	421	30

Table 3 – Summary of Parent Assets

6.2. Theoretical Useful Life

Useful life is the period over which an asset is expected to be available for use by an entity. This is usually in the form of years depending on the asset class.

Description	Material	Useful Life
Boxed Kerb & Gutter	Plain Concrete	50
Vehicle Layback	Plain Concrete	50
Concrete - Pipe Culvert	Reinforced Concrete	50
Concrete - Boxed Culvert	Reinforced Concrete	50
Open Channel Drain	Reinforced Concrete	50
Open Channel Drain	Loam	100
Kerb incl. Pit	Reinforced Concrete	50
Formation	Soil	100
Gross Pollutant Trap	Concrete	50

Table 4 – Useful Life

6.3. Classification

The classifications of Drainage Assets aim to reflect optimum asset management practices for the capital, maintenance, and operational prioritisation of Assets. This will allow Council to have a more relevant grading of its assets, to determine intervention levels, renewal costs based on risk, design of asset for upgrade or new development and prioritisation of assets during emergencies.

The hierarchy identifies different intervention levels for different assets depending on their assessed criticality and consequence rating. Details of the classification components are contained below.

Asset Description	Classification
Underground Pipe network	1
Gross Pollutant Traps	1
Retention Basins	1
Detention Basins	2
Lined Open Channel Drainage	3
Kerb and Gutter incl. pits	4
Unlined Open Channel Drainage	5

Table 5 – Classifications

7. Stakeholder Management

Council has a number of methods for collecting feedback on their performance in managing the water assets. These have been used to measure customer expectations and include:

- Narromine Shire Council - Community Survey 2022;
- Informal feedback from stakeholders; and
- Analysis of community service requests and complaints.

The table below describes stakeholder roles and responsibilities

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Councillors	• Have a say in proposed strategy	• This Strategic plan is a communication tool and a way to a sustainable fair network, without burdening residents, business, or industry. • The system determines the requirement and priority of the work.	Councillor Workshop, and community consultation
Residents	• Have a say in proposed strategy • Perception of fairness • Getting value for money		Community consultation
State Government	• Regulation of Waterways		Review of Best Practice and documentation Provision of Capital Funding via Grants

Stakeholder	Stakeholder Issues	Key messages	Participation & Feedback
Council Indoor Staff	• Have a say in proposed strategy, • Minimal additions to current workloads	• Regular benchmarking and quality management and measuring kpi's, ensures Council is getting value for money, • A strategy and a fair planning and delivery mechanism in place. • Certainty and trust of Project delivery when proposed.	Engineering and Assets team reviews, Councillor workshop
Council Outdoor Staff	• Have a say in proposed strategy, • Structured programs • Want to understand place in process		Team leader workshops Engineering and Assets team reviews

Table 6 – Stakeholder Management

8. Strategic and Corporate Goals

The Asset Management Plan provides clear guidelines for the effective management of the assets owned and by Council. Local Authorities exist principally to supply core services that meet the needs of their communities.

Council's goal in managing assets is to meet the required level of service in a sustainable manner for present and future stakeholders. The key elements to strategic goals of asset management are:

- Demonstrating responsible stewardship;
- Taking a life cycle approach to asset ownership;
- Defining the infrastructure assets physically and financially;
- Providing a defined Level of Service and monitoring the performance against service levels and service expectations;
- Understanding and meeting the demands of growth through demand management
- and infrastructure investment;
- Managing risks associated with asset failure; and
- Support long term financial planning.

Council's objective is to ensure financial strategies underpin Council's Asset Management Strategy and Asset Management Policy. Its goal is to have long-term vision for sustainability. In order to do so, it is important to prepare and review the Council's short- and medium-term financial plans for Risk Management, Plant & Equipment, Information Technology, Section 7.11 and 7.12 Contributions and Asset Management Plans.

Acting as a leader in the delivery of social, financial, environmental, and operational objectives, Council needs to have good governance and administrative support. Council's other goals are to plan, manage and fund Council's public assets to meet the community expectations and defined levels of services. Furthermore, the safety of the community is paramount and is acknowledged and supported through proactive policies, programs and strategies.

9. Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 7.

Legislation	Requirement
Local Government Act 1993.	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
The Australian Accounting Standards	The Australian Accounting Standards Board Standard, AASB 116 Property Plant & Equipment requires that assets be valued, and reported in the annual accounts, which also includes depreciation value (i.e. how fast are these assets wearing out).
Roads Act 1993.	Other issues affecting asset service levels include judicial decisions relating to Council's role as roads authority for local roads as conferred by the Roads Act 1993, and legislative powers granted to public utilities relating to road openings.
Environmental Planning and Assessment Act 1979.	Sets out guidelines for land use planning and promotes sharing of responsibilities between various levels of government in the state.
Protection of the Environment Operations Act 1997	Sets out Council responsibility and powers of local area environment and its planning functions.
Local Government (General) Regulations 2021.	Determines developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. This Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.

Legislation	Requirement
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources, water rights, licences, allocations
Public Health Act 2010	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality Waste Water.
Work Health and Safety Act 2011 (and Regulations)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work.

Table 7 - Legislative Requirements

10. Levels of Service

10.1. Introduction

Council is responsible for providing a safe, reliable and cost-effective drainage collection system which is customer focused, enhances the environment and caters for the sustainable growth of the Shire. Ongoing consultation is undertaken with the community to ensure the provision of the Drainage systems are acceptable to the wider community.

Levels of service (LOS) indicators have been developed for the services provided by the Drainage Network based on the objectives set in Council's Community Strategic Plan. These objectives have been used to define Community Levels of Service (CLOS), which relates to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost efficiency and legislative compliance.

From these CLOS, Technical Levels of Service (TLOS) have been developed that detail how these services will be delivered in terms of quantity, frequency and standard.

Finally, Key Performance Measures and how they will be measured, provide the detail on how we determine whether we are delivering what the community are asking for.

Council's current service targets are in Table 8; Table 8 summarises at a high level what the community desires for each asset and how Council will deliver it.

Key Performance Measure	Level of Service Objective
Community Levels of Service	
Quality	Provide safe uninterrupted Drainage services up to ARI 1:5
Function	Ensure the Drainage service meets the design and required parameters
Safety	Ensure works do not create safety hazards
Technical Levels of Service	
Condition	Provide appropriate Drainage services to meet user requirements
Function/Accessibility	Ensure Drainage services are available to all occupied properties
Cost Effectiveness	Provide Drainage services in a cost-effective manner
Safety	Effectiveness of WH & S programs and work method Statements/Standard Operating Procedures

Table 8 – Key Performance

10.2. Community Levels of Service

Community Levels of Service relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. Community levels of service measures used in the Asset Management Plan are:

- *Quality* *How good is the service?*
- *Function* *Does it meet users' needs?*
- *Safety* *Is the service safe?*

10.3. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that Council undertakes, to best achieve the desired community outcomes.

Technical levels of service measures are aligned with annual budgets covering:

- **Operations**
  The regular activities to provide services such as electricity costs, inspections, administration etc.

- **Maintenance**
  The activities required to retain assets as near as practicable to its original condition (e.g. mow unlined open channel, cleaning drainage network of debris etc).

- **Renewal**
  The activities that return the service capability of an asset up to that which it had originally (e.g. pipeline replacement and lined open channel drainage replacement).

- **Upgrade**
  The activities to provide a higher level of service (e.g. increasing pipe sizes for drainage output, increasing detention basin capacity etc.) or a new service that did not exist previously (e.g. network extension etc.).

10.4. Intervention Levels

Council maintains a Condition Assessment Manual, detailing the frequency of inspection as well as the condition rating to be utilised for all assets. This data is recorded in the Council Asset Management System and is used to predict the timing of renewal and maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (Completely Failed) scale consistent with the IPWEA models as outlined in the IPWEA Practice Notes. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual and in summary can be seen in Table 8.

The intent of Council is not to undertake renewal on an asset until it reaches its ‘Intervention Level’. That is, the condition at which the community has determined renewal is required, based on the LOS analysis, or due to environmental or health factors. Typically, assets will be renewed between condition 3 and 4, which ranges from fair to poor, depending on their classification.

Table 9 outlines the rating scale and association with the remaining life percentages. These ratings are also applied to Long Term Renewal Planning.

Table 8 – Intervention Levels Condition Rating	Description	Remaining Life / CWDV (% of CRC)
1	Excellent condition: Only planned maintenance required.	100-80%
2	Very good: Minor maintenance required and planned maintenance.	80-60%
3	Good: Significant maintenance required.	60-40%
4	Fair: Significant renewal/upgrade required.	40-20%
5	Poor: Unserviceable.	20-0%

Table 9 – Intervention Levels

The attached Asset Register contains the condition of assets.

11. Operations

Operational activities are regular activities required to continuously provide the service including inspections, electricity costs, fuel, and overheads.

Some of the Operational services identified relevant to Water Services include:

- Asset Inspections
- Land Rates
- Electrical Supply
- Engineering Management
- Insurances
- Customer Request Management
- Emergency Management

Inspections

Inspections can be in the form of condition, compliance, operational, project etc. Asset Management principles focus on the condition inspections for programming and monitoring as other areas, staff and positions within Council are responsible for the delivery and reporting of other inspections associated with operations and delivery.

A full list of condition inspections is outlined in the inspection program, which is currently under development to be incorporated with the Narromine Shire Council Inspection Manual.

Above Ground Assets: Council currently undertakes inspections on its above ground assets. This condition inspection programme includes the above ground infrastructure on all of Councils drainage assets such as kerb and gutter.

Below Ground Assets: Council is developing a CCTV inspection and reporting program to identify the condition of its underground drainage network.

Inspection	Frequency
Condition Assessments of all Above Ground Assets	Annually
Pipe Network	Four Yearly
Condition inspection of failed asset (i.e. pipe break) including condition rating	Per occurrence

Table 10 - Summary of Inspections

All condition assets are reviewed and recommended by external consultants during the revaluation period.

12. Maintenance

Maintenance Work is the regular on-going work that is necessary to ensure the asset is as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets functional, excluding rehabilitation and rehab. These activities are required to ensure that the asset reach their expected useful life with no addition to their existing useful life and typically increases as the asset ages. It includes work on an asset where a portion of the asset may fail and need repairs to make it operational again. It may be planned or reactive maintenance work, where works that are programmed, are cyclic in nature and reactive is not programmed and usually reactive such as storm damage or vandalism.

Maintenance may be classified as Planned, Reactive, Specific or Unplanned Maintenance.

Planned Maintenance

Planned Maintenance falls into three categories:

1. Periodic Maintenance – also known as routine maintenance necessary to ensure the reliability or to sustain the design life of an asset
2. Predictive Maintenance – condition monitoring activities used to predict failure
3. Preventive Maintenance – maintenance that can be initiated without routine or continuous checking and is not condition based

Some of the relevant planned maintenance activities and the frequency they are undertaken can be seen in the following table.

Activity	Frequency	Category
Mowing of Unlined Open Channel Drains	Monthly	Periodic
Cleaning of debris from Network	Annually	Periodic
Cleaning blockages in culverts	Quarterly	Preventative / Predictive

Table 11 - Planned Maintenance Activities and frequency

Reactive Maintenance

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

Specific Maintenance

Maintenance work to repair components or replaced sub-components that need to be identified as a specific maintenance item in the maintenance planning.

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.

Adjusting Levels of Service

Due to the health risks and legislative requirements Council is obligated to maintain its existing LOS. Currently Councils LOS are based on:

- The community has access to a drainage system that has sufficient capacity for current and projected growth requirements
- Drainage is managed in accordance with the principles of ecologically sustainable development
- The operation of the drainage system results in high quality services to customers
- All Stormwater levies are expended in accordance with the Asset Management Plan.

The proposed maintenance programs are detailed in the Annual Maintenance Program.

Figure 3 outlines the increase using a four-year average to project the following ten years.

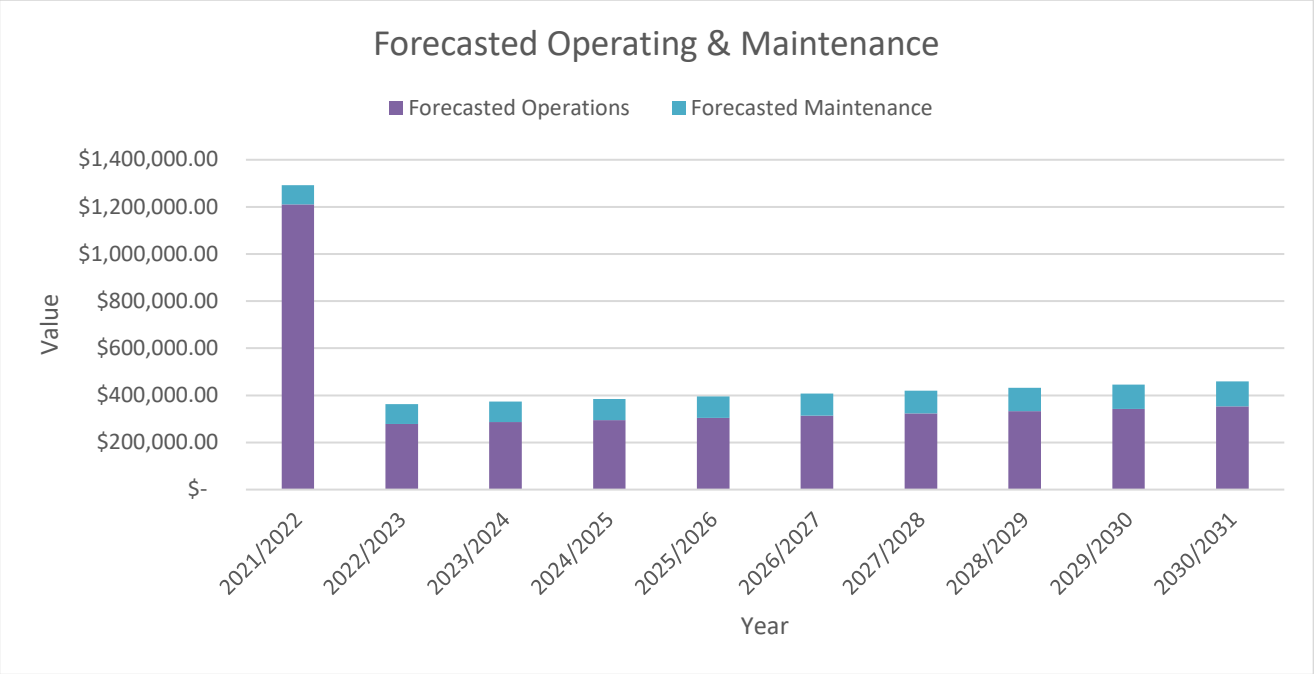

Figure 3 - Projected Operations & Maintenance Expenditure

Routine Maintenance Programming

A maintenance program is currently under development and will include future routine maintenance programming documents.

13. Capital

Capital Work is the act of acquisition by creating, renewing, upgrading and/or disposing of an asset. The Acquisition lifecycle activity identifies the additional assets that will be added to the asset portfolio over the planning period. This includes assets that are purchased, constructed, or contributed. Acquisition expenditure may be classified as:

New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand.

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.

Upgrade

Expenditure, which replaces a previously existing asset with enhanced capability or function, where an option existed for replacement without the enhanced capability or functionality. The asset, or infrastructure network, will therefore deliver a higher level of service to the user and extends its life.

Renewal

Renewal expenditure is major work, which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original capacity. Assets requiring renewal are generally identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Disposal

Disposal of an asset is classed as a Capital work due to the costs associated.

13.1. New / Upgrade / Expansion

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with other organisations and statutory regulatory requirements, or business improvements. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

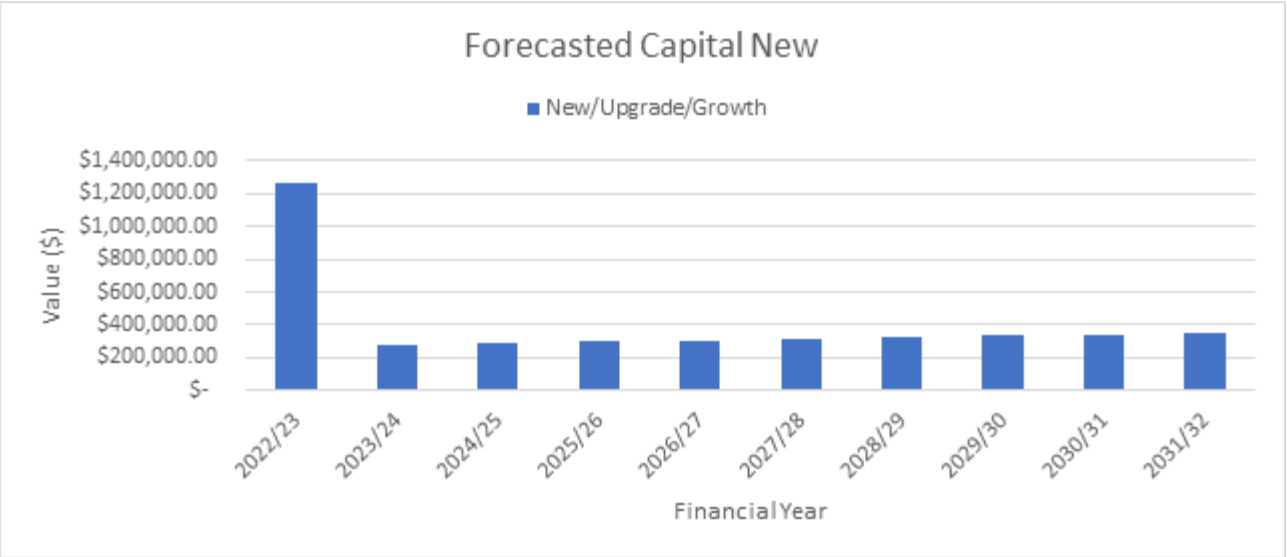

Figure 4: 10-year Capital Works Program

A detailed table of the ten-year works program can be seen in Appendix A.

13.2. Renewal / Rehabilitation

Renewal expenditure is major work that restore, rehabilitates, replaces an existing asset to its original capacity. Work over and above restoring an asset to original capacity is classed as an upgrade or expansion.

It is 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. Renewal activities allow the service to continue to be used after the original asset has reached the end of its useful life. As it reinstates existing service capacity, it generally has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. replacing a material section of a drainage network with pipes of the same capacity.

Assets requiring renewal are identified from estimates of remaining life and condition assessments. Assets that are scheduled for renewal are assessed to verify the remaining life/ serviceability and to develop a preliminary renewal estimate. These assets are prioritised based on that assessment and available funds, then scheduled in future works programmes.

Assets requiring renewal are identified from one of three methods provided in the ‘Expenditure Template”.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the ‘Expenditure template’.

Method 1 is the primary method for this Asset Management Plan but also in conjunction with asset inspections and prioritisation based upon hierarchy and condition rating.

13.3. Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Australian Rainfall and Run-off, 2017
- Relevant Australian Standards
- Suppliers Specifications and Guidelines

13.4. Summary of Projected Renewal Expenditure

A summary of projected renewal expenditure includes the following:

- Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 4.
- The projected capital renewal program is shown in Appendix A.

Figure 5 indicates that, based on current projections, Council will spend approximately $3,940,189 on renewals over the next ten years.

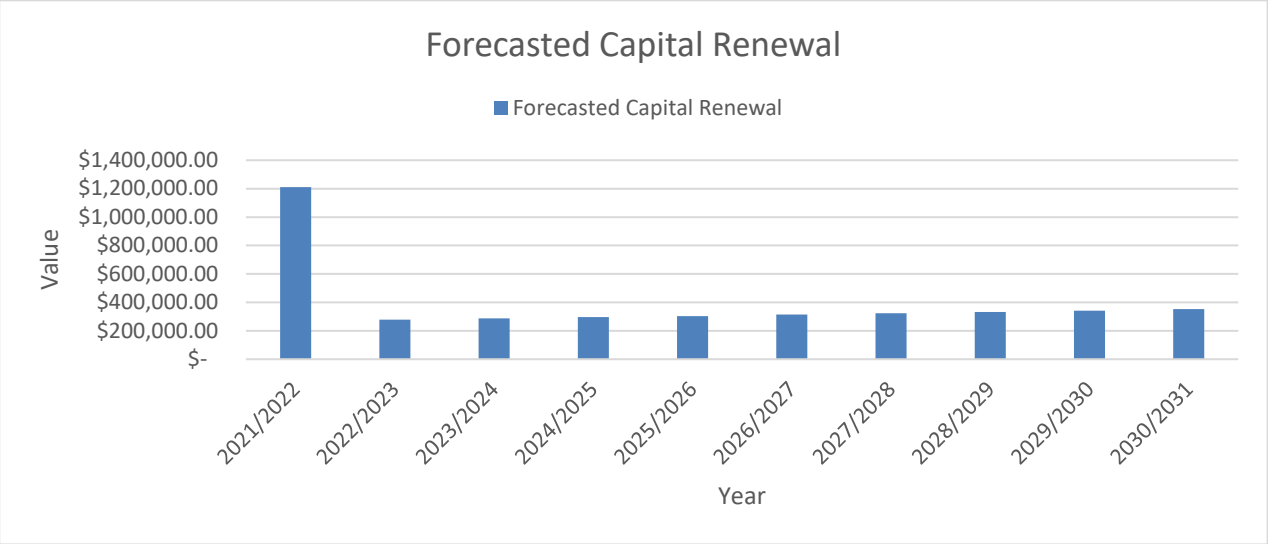

Figure 5 – 10 Year Capital Works for Upgrades

13.5. Disposal Plan

Disposal is any activity associated with the disposal of a decommissioned asset including sale, demolition and/or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicates that the community doesn't require the asset (as they have not raised concerns or complaints about the asset condition). These assets may be considered redundant or not utilised and therefore, with the approval of the General Manager and Council at a Council meeting, will decommission and dispose of the asset unless considered critical infrastructure by the Council.

Through careful analysis of all the existing assets, Council may become aware of assets no longer required. Revenue can therefore, increase through their disposal. An example of this may be surplus areas of land. An added advantage is if such assets are sold, there will be a saving on maintenance expenditure in relation to those assets.

There are currently no plans for disposal of assets in this Asset Class.

14. Future Demands

New works are those works that create a new asset that did not previously exist, or works, which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social, regulatory, or environmental needs.

14.1. Demand Drivers

ABS census data statements regarding demand within the shire can be seen below:

2001:
On Census Night 7th August 2001, 6,611 people were counted in Narromine (A) (Local Government Areas): of these 50.4% were male and 49.6% were female. Of the total population 14.6% were Aboriginal and Torres Strait Islander people.

2006:
In the 2006 Census, 6,508 people were usually resident in Narromine (A) (Local Government Areas): of these 49.7% were male and 50.3% were female. Of the total population 15.8% were Aboriginal and Torres Strait Islander people.

2011:
In the 2011 Census, there were 6,585 people in Narromine (A) (Local Government Areas) of these 50.0% were male and 50.0% were female. Aboriginal and Torres Strait Islander people made up 19.6% of the population.

2016:
In the 2016 Census, there were 6,444 people in Narromine (A) (Local Government Areas). Of these 49.9% were male and 50.1% were female. Aboriginal and/or Torres Strait Islander people made up 19.9% of the population.

The total dwellings in Narromine Shire Council as per the ABS website.

LGA	Year	Value	Percentage Change
NSC	2001	2,872	
NSC	2006	2,637	-8.12%
NSC	2011	2,741	+3.94%
NSC	2016	2,695	-1.71%

Table 12 – Australian Bureau of Statistics Data

The census study area did not change during each period.

14.2. Narromine

Narromine experienced a decline in population between 2006 and 2011 of 353 persons, however, a major shift in the census boundary is greatly decreased in 2011. Narromine had an increase in population of 108 persons between 2011 and 2016 census, with a total increase of 2.31% (4,581/4689) over a period of 4 years at a rate of 27 persons per year (approx. 0.6% per annum), the census boundary was somewhat consistent during this period.

It's expected that Narromine's future population growth will primarily occur in residential developments to the East and South of the Township due to locality of Dubbo, land availability and the flood levee.

Narromine's total dwelling information can be seen in the following table:

Town	Year	Value	Percentage Change
Narromine	2006	2,096	
Narromine	2011	1,969	-6.45%
Narromine	2016	2,040	+3.48%

Table 13 – Total data for dwellings in Township of Narromine

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.3. Trangie

Trangie experienced a growth period between 2006 and 2011 of 383 people, a 12% increase, however, the boundary change of the census analysis was greatly increased in 2011, being the cause of the population increase. Trangie has decreased in population by 62 people between the 2011 and 2016 census, with a total decrease of 5% (1188/1250) over a period of 4 years at a rate of 15 persons per year (approx. 1% per annum), the census boundary was somewhat consistent during this period.

The drainage assets in any future private developments will be handed over to Narromine Shire Council to maintain and manage, increasing current total drainage asset value and maintenance costs over the period of the Asset Management Plan, which is expected to be no greater than 1%.

Trangie's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Trangie	2006	426	
Trangie	2011	591	+28%
Trangie	2016	517	-14%

Table 14 – Total data for dwellings in Township of Trangie

The study area has significantly increased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.4. Tomingley

Tomingley experienced an increase in population between 2006 and 2011 of 100 persons, however, a major shift in the census boundary is greatly increased in 2011. Tomingley had a decrease in population of persons between 2011 and 2016 census, with a total decrease of 7.84% (330/306) over a period of 4 years at a rate of 6 persons per year (approx. 1.96% per annum), the census boundary was somewhat consistent during this period.

Tomingley's future population growth will primarily occur due to mining developments within the area due to the existing local gold mine.

Tomingley's total dwelling information can be seen in the following table

Town	Year	Value	Percentage Change
Tomingley	2006	115	
Tomingley	2011	181	-57%
Tomingley	2016	138	+24%

Table 15 – Total data for dwellings in Township of Tomingley

The study area has significantly decreased between 2006 and 2011, however, relatively the same in 2011 and 2016.

14.5. Anticipated Changes in Customer Expectations

Based on experience to date, community expectations on quality, delivery and costs associated with the Drainage related assets indicate that expectations increase over time, particularly in areas that impact on risk.

Information on community expectation of Drainage assets service levels has not been accumulated over enough time to project likely future expectations, but it is reasonably safe to assume that these will not be lower over the period of this Asset Management Plan.

14.6. Demand Impacts on Assets

A steady development growth in the existing suburbs of Narromine will lead to an increase in run-off due to an increase in permeable surfaces. Council must ensure they understand their drainage network capacity requirements to allow for increased stormwater volumes.

14.7. Demand Management Plan

14.7.1. Asset and Non-Asset Solutions

Techniques available to Narromine Shire Council to assist the management of its water assets include the development of a detailed hierarchy linked to service levels and a capital evaluation program will assist in the allocation of funds and in minimising risk when managing the major water assets.

14.7.2. Asset Programs to Meet Demands

Asset programs to meet future demands within existing water networks can only be conducted once studies are completed to plan and understand future urban infill within Narromine, Trangie and Tomingley. A clear understanding of the existing network capacity will be essential in this process.

14.7.3. Key Considerations/Recommendations

Implement findings od drainage studies to improve drainage characteristics.

Effective control over the drainage assets handed over to Council by private developers ensuring assets are designed to minimise maintenance.

Ensure existing drainage network restrictions do not prevent land development and economic growth in Narromine, Trangie and Tomingley.

15. Financial Plan

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

15.1. Financial Statements and Projections

The financial projections are shown in Figure 6 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

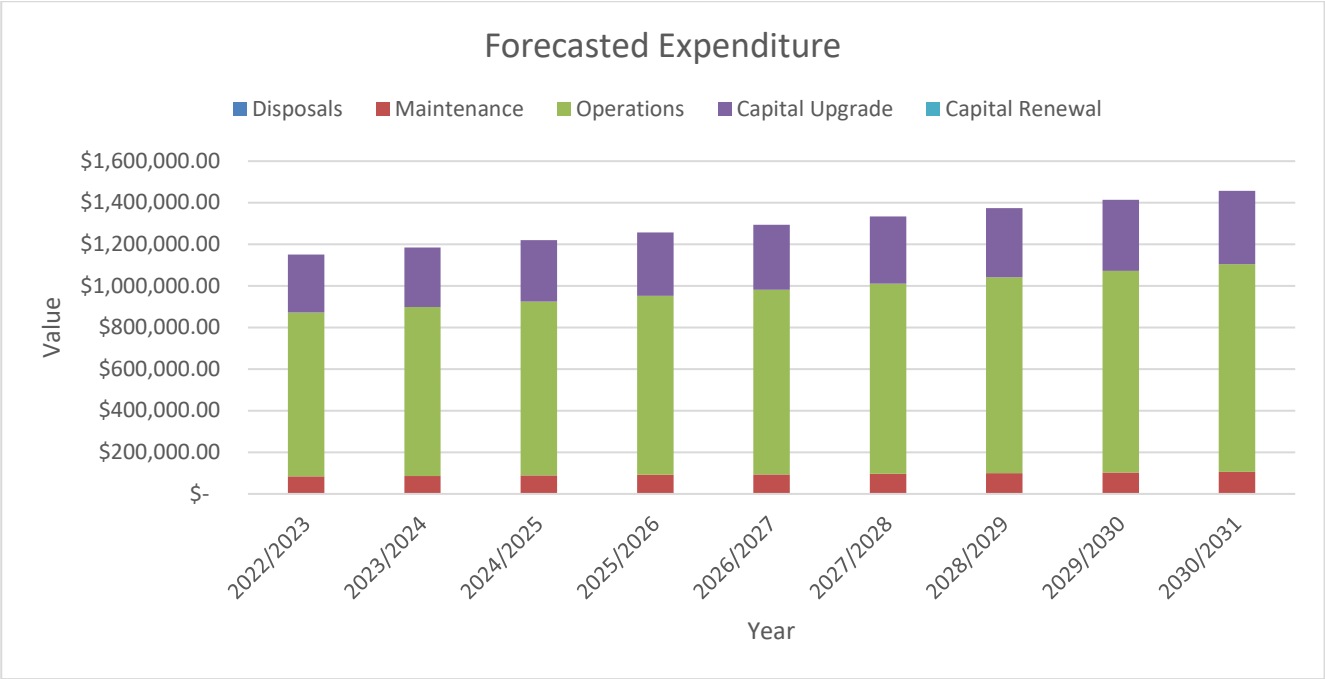

Figure 6 - Projected Operating and Capital Expenditure and Budget

15.2. Financial sustainability in service delivery

There are three key indicators for financial sustainability, that have been considered in the analysis of the services provided by this asset category, these being long-term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

15.3. Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Life cycle costs estimates can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital expenditure. Life cycle expenditure peaks and troughs will experience volatility primarily due to the timing of the capital work due to the sharp increase of the costs associated with the work.
A shortfall between life cycle cost and life cycle expenditure is the life cycle gap, a positive gap indicates a surplus reserve and a negative gap indicated a gap in the reserve.

The life cycle costs, and life cycle expenditure estimates comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and long-term financial plan including strategies that are required to attempt to bridge the gap associated, such as, but not limited to:

- Reduction in level of service for capital, maintenance or operational;
- Sale of disused assets;
- Grant funding;

- Increased revenue;
- Improved technology; and
- Reduction in service requirements, and so on.

Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented, to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- Asset useful lives are achieved before they require replacement.
- Regulation does not require significant change to the operations.
- The operating environment (physical, demographic and technical) does not change significantly.
- Operating and maintenance averages and associated costs do not fluctuate substantially.
- All delivery requirements can be met within the allotted time.

16. Key Performance Measures

Development of Key Performance Measures (KPM's) have been developed by considering environmental, health and safety, operational and infrastructure capabilities. The KPM's are to be reviewed to align with the Technical LOS and the Strategies identified in Levels of Service section of this document.

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measured
Community Levels of Service							
Quality	Infrastructure	Flow of water is to a minimum of ARI 1:5 (AEP 18.13%)	Proven Customer requests	<2 complaints per quarter during the rain event	Satisfactory	Excellent to Good	TBD
Function	Infrastructure	Zero overflow of water during a 1:5 (AEP 18.13%) rain event	Proven Customer requests	Zero reported incidences per annum	Satisfactory	Excellent to Good	TBD
Safety	Environment	Zero pondage of water in drainage network > 1 week ***after*** rain fall	Zero confirmed reports of water pondage	Zero reported accidents per annum	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	No reports of near misses in conjunction with Council Infrastructure	Zero confirmed reports of near misses	Zero reported accidents per annum	Satisfactory	Excellent to Good	TBD
Technical Levels of Service							
Condition	Operational	All asset conditions are maintained to a level of 3-4	Condition inspections / Revaluation	100% compliance with maintenance	Satisfactory	Excellent to Good	TBD
Accessibility	Infrastructure	Provision of connection to the drainage network including network expansion into existing	Percentage of properties unable to be connect to the existing network	99.9% compliance	Satisfactory	Excellent to Good	TBD

Key Performance Measure	Capability Consideration	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service	Predicted Level of Service (4 years)	Current Performance Measured
Cost Effectiveness	Infrastructure	Provide service in cost effective manner	Budget compliance	Expenses within budget	Satisfactory	Excellent to Good	TBD
Safety	Health & Safety	Ensure facilities are safe	Regular safety audits in conjunction with the condition inspections are carried out, action customer requests within 5 working days	Safety inspections – Clear of contaminants, objects that could cause injury	Satisfactory	Excellent to Good	TBD
Quality	Infrastructure / environment	Design, construct and maintain Infrastructure to appropriate technical standards such as NATSPEC or adopted Council Technical Procedures	Technical Specification checklists and document storage	NATSPEC	Satisfactory	Excellent to Good	TBD

Table 16 - Performance Measures

Notes:

1. KPM's are developed at a High Level, see other strategic documents for more detailed information about strategic performance
2. Rain Events are measured.
3. ARI 1:5 is used as a reasonable level of rain event for Urban Stormwater Drainage Model.

17. Risk Management Plan

Narromine Shire Council is committed to a structured and systematic approach to the management of risk and has committed resources to the implementation of an Enterprise Risk Management Program. This program aims to embed the principles of risk management in all aspects of Council's operations, which will ultimately:

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

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan has been developed.

18. Asset Monitoring

The Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

18.1. Accounting/ Financial Systems

Council uses an application called Authority for its core Financial Management. The financial system is managed by Council's Finance and Corporate Strategy Department. Financial reporting is to follow the requirements of the Local Government Act 1993 and relevant Australian Accounting Standards.

18.2. Asset Management Information System (AMIS)

Council has installed an Asset Management System 'Authority", "Reflect" and "Konect Manager" with the following functionality:

- Asset Register;
- Capital Values;
- Defect Management;
- Customer Request Management;
- Asset capitalisation;
- Inspection/defect logging;
- Store dimension/ numeric data;
- Historic information about each assets condition, work & valuation;
- Valuation & depreciation;
- Condition or failure mode ratings;
- Maintenance management with periodic/cyclic scheduling; and
- Producing work order.

18.3. Geographical Information System (GIS)

Council currently has Intramaps and QGIS as its GIS. GIS allows users to spatially visualise both data and information – primarily to assist with decision-making and planning. GIS is a corporate tool that presents an efficient means of accessing, analysing, and reporting corporate data.

18.4. Customer Request Management System (CRM)

Council currently operates a Customer Request Management System in “Authority”. This system links the customer request to a property identifier.

It is recognised that it is important to integrate the AMIS with GIS, CRM and Finance for tracking complaints and responses against individual assets effectively and efficiently. This will provide information relating to the operational cost of each asset.

18.5. Workforce Planning and Training

Council currently employs trained operators in operations for Drainage Asset Class as part of its recruitment process. Job specific training is identified during annual performance appraisals where relevant training requirements are discussed and included in a training plan.

Council currently has a succession strategy and is developing a position / skills matrix that is to be employed within its operations.

18.6. Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation’s Long-Term Financial Plan and Community/Strategic Planning processes and documents;
- The degree to which the 4-year detailed works programs, budgets, corporate business plans and organisational structures consider the ‘global’ works program trends provided by the asset management plan; and
- Measurement of particulars associated with general inspections on a frequency base to measure the performance of the operations vs the AMP LOS. Reporting of the outcomes of these performance measures will be as required by the General Manager and Director of Infrastructure and Engineering Services

Table 17 includes improvements to the management and planning of drainage assets.

18.7. Field Logs

As per the improvement plan as the Level of Service Performance Measurement measures are formed and data is generated, data associated with the key performance measurement will be attached to the Asset Management Plan in future years.

19. Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 17.

The improvement plan will be categorized by the following types:

- Legislative: compliance requirements
- Performance: development of existing asset principles associated performance of assets and staff
- Knowledge: based on improvement of asset knowledge base or development of existing asset knowledge base
- Service Focused: improvements associated with the development of services
- Skills: any skills associated with the improvement of Asset Management within the Organisation including operational asset management such as Human Resources.

#	Type	Task	Priority	Expected Completion
1	Legislative	Revaluation of Assets	1	2024/25
2	Performance	Review Renewal of all Assets	1	2021/22
3	Knowledge	Update Asset Register	3	Ongoing
4	Knowledge	Finalise Maintenance Program	2	2022/23
5	Knowledge	Input Maintenance Program into AMS	2	2022/23
6	Performance	Maintain Levels of Service	3	Ongoing
7	Knowledge	Develop 10 Year Plans	3	Ongoing
8	Performance	Review Inspection Procedures	2	2022/23
9	Knowledge	Update Attributes in AMS	3	Ongoing
10	Service Focus	Review Levels of Service	2	2022/23
11	Service Focus	LOS Performance Measurement	1	Ongoing
12	Skills	Development of an Operational Staff skills matrix	2	2023/24
13	Performance	Risk Management Plan for Drainage Assets	1	Ongoing
14	Performance	Align AMP with Business Continuity Plan	5	As required
15	Legislative	Review of existing inspections program and compliance with Legislation	1	2023/24
16	Knowledge	Link Assets in AIMs to the GIS system	4	2023/24
17	Knowledge	Determine and input income of Infrastructure into the AMP to determine Return on Asset (ROA)	4	2023/24
18	Service Focus	Implement findings of drainage strategies	1	Ongoing

Table 17 - Asset Management Improvements

19.1. Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in levels of service and/or resources available to provide those services because of the budget decision process.

The Asset Management Plan has a life of 4 years along with the Long Term Financial Plan.

20. References

Abs.gov.au. 2022. *Search Census data | Australian Bureau of Statistics*. [online] Available at: <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats> [Accessed 28 April 2022].

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1. Appendix A: Ten Year Capital Works Program

STORMWATER DRAINAGE	1 2022/23	2 2023/24	3 2024/25	4 2025/26	5 2026/27	6 2027/28	7 2028/29	8 2029/30	9 2030/31	10 2031/32
LIFE CYCLE CAPITAL COSTS										
NARROMINE										
LINED & UNLINED OPEN CHANNEL DRAIN - CAPITAL PROGRAM					8,695					10,079
UNDERGROUND DRAINAGE PIPE NETWORK - CCTV AND CLEANING PROGRAM	27,750					59,703				
WETLANDS - CAPITAL PROGRAM				11,255			12,299			13,439
TRANGIE										
LINED & UNLINED OPEN CHANNEL DRAIN - CAPITAL PROGRAM	5,150					5,970				
TOMINGLEY										
LINED & UNLINED OPEN CHANNEL DRAIN - CAPITAL PROGRAM		2,652					3,075			
NEW, ACQUISITION AND/OR UPGRADE										
NARROMINE										
URBAN STORM WATER ENVIRONMENTAL - SAFETY & CONTROL PROGRAM	12,875	13,261	13,659	14,069	14,491	14,926	15,373	15,835	16,310	16,799
URBAN STORM WATER STRATEGY - CAPITAL PROGRAM	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	268,783
WETLANDS - CAPACITY UPGRADE										
FLOOD MITIGATION NARROMINE LEVEE PROJECT										
TRANGIE										
URBAN STORM WATER ENVIRONMENTAL - SAFETY & CONTROL PROGRAM	12,875									
URBAN STORM WATER STRATEGY - CAPITAL PROGRAM	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239	67,196

	1	2	3	4	5	6	7	8	9	10
KERB & GUTTER	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
LIFE CYCLE CAPITAL RENEWAL PROGRAM										
NARROMINE	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858
TRANGIE	50,000	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239
TOMINGLEY					23,185	23,881	24,597	25,335	26,095	26,878
NEW, ACQUISITION AND/OR UPGRADE										
NARROMINE										
A'BECKETT STREET	50,000									