

Gunnedah Shire

Stormwater Asset Management Plan

November 2024



Document Control

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| | | | | | |

In presenting this document to the community, Gunnedah Shire Council acknowledges the Kamilaroi Nation as the traditional Custodians of the Land on which we live and work. In doing so, Council pays its respect to all Elders both past and present as well as to the young Indigenous leaders of tomorrow.

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Background

Asset Management Plans are important documents which help us to plan and invest wisely to maintain our assets and infrastructure so we can continue to deliver valuable services for our community now and into the future.

Assets are the foundation stones of the Shire and include the streets we drive on, the parks and reserve our family play on, the stormwater network we rely on, and the community and sporting facilities we enjoy across our LGA.

Here we present the Stormwater Asset Management Plan, which covers Gunnedah's stormwater network.

Asset Management Plans provide a snapshot of the current and future state of Council's infrastructure. The plans ensure we maintain and renew assets in a cost effective and sustainable manner that meets our community's expectations.

In the management of assets, we have to balance the service standard expectations of the community with the cost of delivering the service. While we would all like the highest standard of our assets this comes at a cost, the long-term impact of which needs to be carefully considered.

Behind the plans is a significant amount of investigation, planning and financial modelling to help Council staff to maintain our assets cost effectively. The Asset Management Plans also highlight that when we build new assets or upgrade assets, we must plan for the ongoing maintenance and ultimate replacement of the assets at the end of their life.

We encourage you to have a look at the Asset Management Plans and review whether the service levels presented here are consistent with your vision for the future of Gunnedah Shire Council.

The following shows our AM documents in relation to other documents of Gunnedah Shire Council:

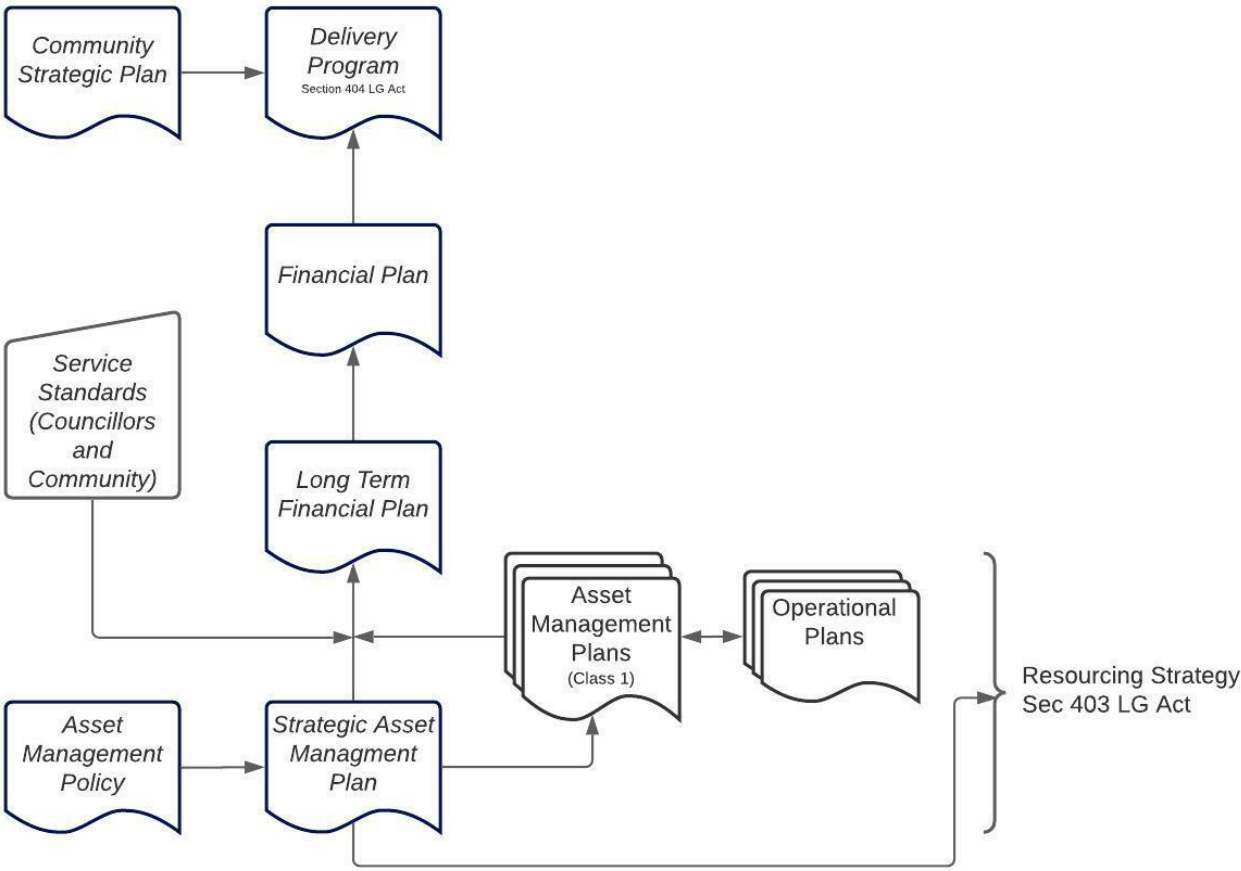


Figure 1: Strategic Asset Management Plan and the Asset Management Planning Process

Executive Summary

This document outlines in detail how Stormwater assets are obtained, maintained, retained, and disposed of to provide best value for Gunnedah Shire Council to meet its organisational objectives.

This Asset Management Plan (AMP) provides information about Stormwater assets with actions required to provide an agreed level of service in the most cost effective manner while outlining associated risks. The plan outlines the services to be provided, how the services are provided and what funds are required to provide over the 10 year planning period. The AMP will link to a Long Term Financial Plan (LTFP) which typically considers a 10-year planning period.

Council does not currently have a recurrent renewal budget for this asset class, but rather plans for specific renewal projects as required and when funding or grants are available. The forecasted funding requirement is \$1,278,074 over the planning period to meet the desired level of service. The current backlog is assessed to be \$927,812.

The overall portfolio condition is forecasted to degrade from 1.91 to 2.64.

The level of confidence is assessed as Low due to the currently available data and assumptions that were required during the lifecycle modelling.

Table 1: Net Strategy Comparison

| Scenario | Treatment Cost | Operational Costs | Maintenance Cost | Initial Backlog | Final Backlog | Total Change in Backlog | Net Strategy Costs | Final Ave. Cond |
|-------------------------------------|----------------|-------------------|------------------|-----------------|---------------|-------------------------|--------------------|-----------------|
| Current LTFP Funding | \$0 | \$0 | \$359,891 | \$810,860 | \$927,812 | \$116,952 increase | \$1,287,703 | 2.64 |
| Desired LoS Required Funding | \$927,811 | \$0 | \$350,263 | \$0 | \$0 | \$0 | \$1,278,074 | 2.51 |

As can be seen from the table and sections above the current level of funding is insufficient to maintain the desired level of service. Further, the current Long Term Financial Plan (LTFP) funding scenario does not allow for any upgrades to the existing network such as increasing the diameter of the pipes in urban areas to be able to carry a higher volume of water during rainfall events.

The Council is currently evaluating solutions to address this current funding gap.

Introduction

In accordance with the *Local Government Act 1993* (the Act) and the Community Strategic Plan (2017-2027), Council provides a range of community services to the members of the local community and visitors. The services include transport services, waste management services, environmental services, social and recreational services, open space services and stormwater drainage services.

Under the Act, Council is required to develop and adopt an infrastructure and asset management plan covering a period of at least 10 years. In addition, Council is required to adopt a Long Term Financial Plan associated with such service plans also covering a period of at least 10 years. There is a direct link between the development and implementation of these two plans, with the LTFP updated to reflect forecast expenditure as detailed within these plans. Variations to the scheduled works within the AMP and the LTFP may be adjusted as the need arises. The primary intent of asset management is to meet a required level of service in the most cost-effective way, through the creation, acquisition, maintenance, operation, rehabilitation, and disposal of assets to provide for present and future community needs. The AMP will be a living document over the next 3 to 4 years complying to all legislative requirements, and to communicate funding required to provide the required levels of service over a 10-year planning period.

This plan also aims to align with ISO 55000 (international standard for asset management) but does not seek to become accredited as an ISO document or process. This document aims to align the delivery of asset management activities with the organisation’s goals and objectives; this process is known as the “line of sight” with asset management. The ISO framework also aims to create transparency and accountability through all aspects of asset management; this process ensures that all stakeholders understand their roles and responsibilities of achieving the intentions of the plan.

The AMP works in conjunction with the following Council plans and strategies:

Table 2: Plans, Strategies and Policies

| Plans, Strategies and Policies | Description |
|---------------------------------------|--|
| Community Strategic Plan 2017 to 2027 | Is a long-term plan that outlines the community’s vision, values, key themes and action statements for the future. It involves extensive community engagement to ensure the plan reflects the aspirations and needs of the community. The plan guides decision-making and resource allocation, aiming to improve the quality of life, economic development, and sustainability within the community. |
| Delivery Program | Aligned to the strategic directions of the Community Strategic Plan, the Delivery Program describes what the elected council commits to deliver over their 4-year term. |

| Plans, Strategies and Policies | Description |
|--|---|
| Operational Plan | The Operational Plan identified the annual projects and activities to deliver against the Delivery Program outcomes, in alignment with the Community Strategic Plan. |
| Long Term Financial Plan | The Long Term Financial Plan (LTFP) is a 10-year rolling plan that informs decision-making and demonstrates how the objectives of the Community Strategic Plan and commitments of the Delivery Program and Operational Plan will be resourced and funded. |
| Asset Management Policy | Outlines the organisation's principles and guidelines on how AM will be done to achieve the organisation's objectives. |
| Strategic Asset Management Plan (SAMP) | High-level plan to implement the Asset Management Policy and outlines how assets will be managed – relies on lower-level plans for execution. |
| Risk Management Policy | Provides a framework and guidance for the management of risks associated with the delivery of the entirety of Council's functions and operations and to maximise opportunities and minimise adverse impacts. |
| Risk Management Framework | Documents a set of components that provide the foundations for risk management throughout Council including policies, procedures, business rules and risk management tools. |

Table 3: Definitions

| Abbreviation | Meaning |
|------------------|--|
| ABS | Australian Bureau of Statistics |
| AM | Asset Management |
| AMP | Asset Management Plan |
| FY | Financial Year |
| LGA | Local Government Area |
| LoS | Level of Service |
| LTFP | Long Term Financial Plan |
| Workbank Backlog | The value of engineering works that are requiring to be delivered to meet the desired level of service, but where capital renewal funding is not adequate. |

Table 4: Legislation and Relevant Acts

| Legislation | Requirements |
|--|---|
| Catchment Management Authorities Act 2003 | Provides for proper natural resource planning at a catchment level. |
| Environmental Planning and Assessment Act 1979 | Institutes a system of environmental planning and assessment for the State of New South Wales. Among other requirements the Act outlines the requirement for the preparation of Local Environmental Plans (LEP), Development Control Plans (DCP), Environmental Impact Assessments (EIA) and Environmental Impact Statements. |
| Fisheries Management Act 1994 | Aims to conserve threatened species, populations and ecological communities of fish and marine vegetation whilst promoting ecologically sustainable development, including the conservation of biodiversity. |
| Heritage Act 1977 | Defines state and local heritage significance place, building, work, relic, moveable object or precinct. |
| Local Government Act 1993 | Sets out the role, purpose, responsibilities and powers of local governments. |
| Native Vegetation Act 2003 | Prevents broad scale clearing unless it improves or maintains environmental outcomes. |
| Water Management Act 2000 | Provides for sustainable and integrated management of water sources of the State for the benefit of both present and future generations. Provides for the orderly, efficient and equitable sharing of water from water sources. |
| WHS Act 2000 | Secures and promotes health and safety of employees at work. |

Asset Information

This plan applies to Stormwater assets which provide services related to the capture of stormwater flows. This includes stormwater drains and pits.

The Stormwater network comprises the below assets, with the condition graph representing the total network measure of the assets in each condition.

Table 5: Asset value

| Asset | Replacement Value | Percent of network |
|-------------------|---------------------|--------------------|
| Stormwater Drains | \$39,602,036 | 86% |
| Stormwater Pits | \$6,670,307 | 14% |
| Total | \$46,272,343 | 100% |

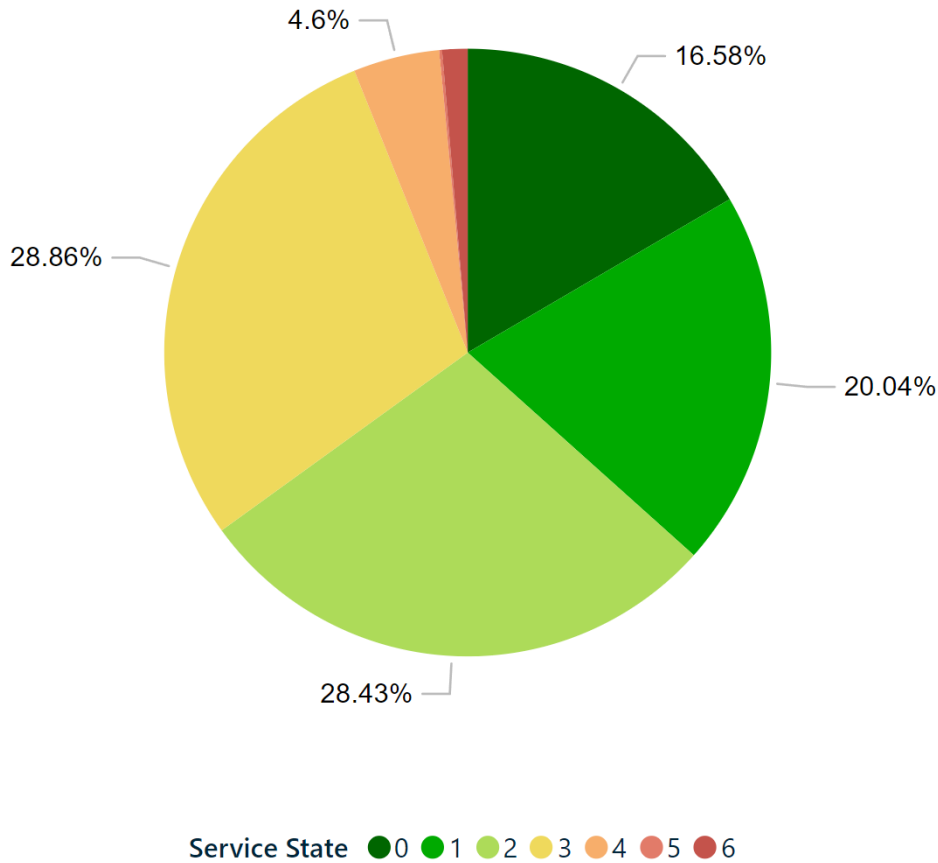


Figure 2: Current Condition State of the Assets

Asset Hierarchy

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

Asset Expected Life

All assets are provided with a baseline straight line useful life value (blue line), used for the purposes of lifecycle cost planning and accounting for asset valuation and depreciation. This straight-line depreciation is used in Council's financial reporting. The service life of some assets, such as transport, differs from the standard design life and the useful life, as it also accounts for the ongoing maintenance and renewal of the asset to maintain a designated technical level of service (black line). The setting of service levels will be undertaken by council staff in consultation with the community and elected members, to optimise whole of life costs for the assets.

As upkeep of the asset is made through the capital renewal and maintenance budgets, the condition should be maintained at the desired level to ensure assets reach their potential service life (black line). If no regular maintenance occurs the potential asset life will not be reached (red line).

Figure 2.2 shows that the deterioration curves of red and black show a true reflection on an assets aging profile, as it typically deteriorates faster towards the end of its life.

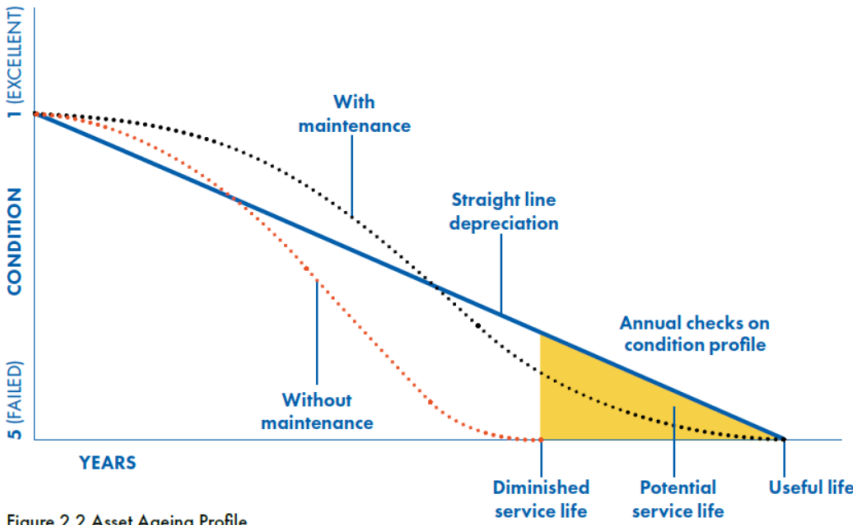


Figure 2.2 Asset Ageing Profile

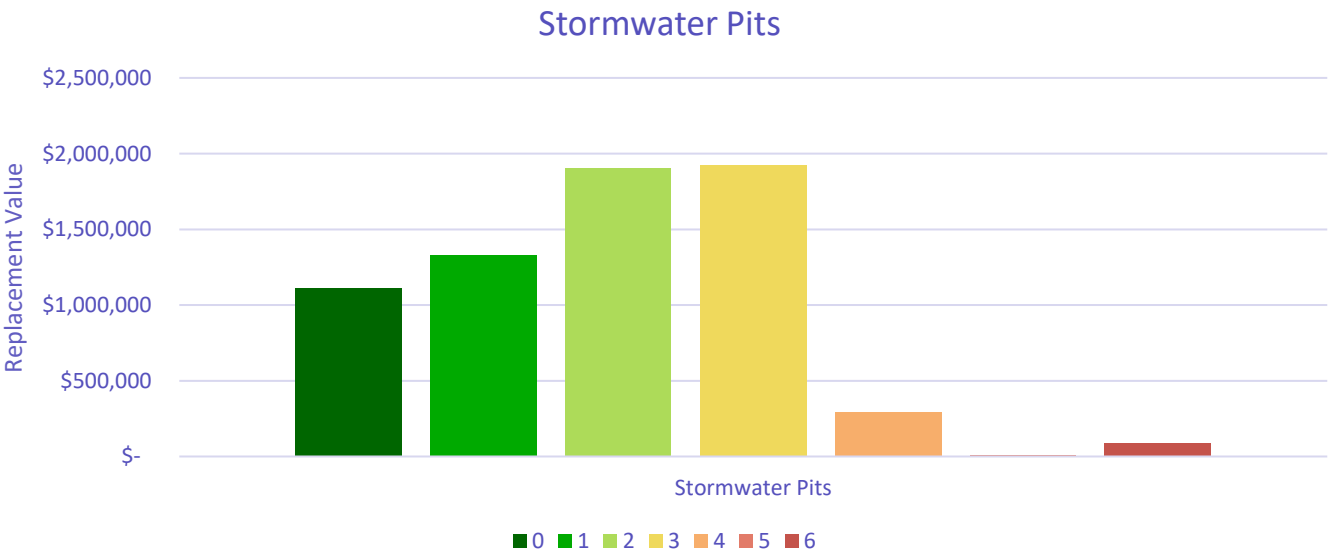
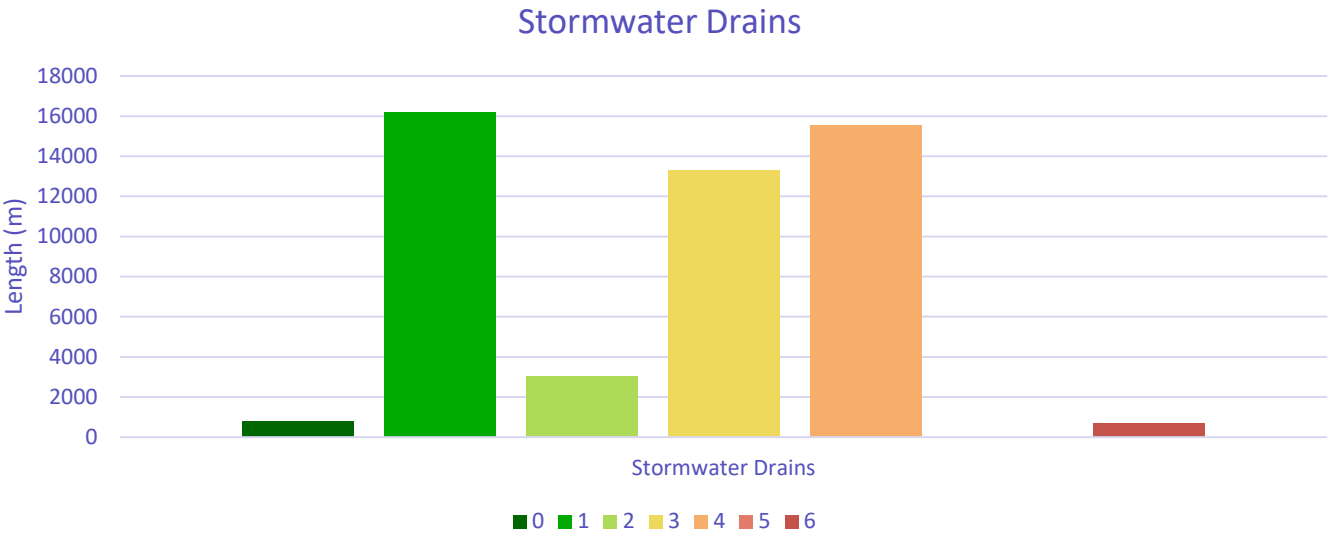
The allocation in the planned budget is sufficient to continue provide existing services at current levels for the planning period.

Asset Quality, Condition and Distribution

Table 6: Condition Assessment System

| Condition Rating | Condition Description | Actions |
|------------------|-----------------------|---|
| 0 | As New | No action required |
| 1 | Excellent/Very Good | No action required |
| 2 | Good | Minor defects only |
| 3 | Fair | Maintenance required to return to accepted level of service |
| 4 | Poor | Consider renewal |
| 5 | Very Poor | Approaching unserviceable |
| 6 | End of Life | Unserviceable |

Please note the below graph represents the total network measure of each asset category across the condition ratings.



Critical Assets

Asset criticality has not been used in the modelling for Stormwater assets and is an improvement action.

Stakeholders

Stormwater assets are managed through Gunnedah Shire Council's Infrastructure Directorate / Works with support services from the Engineering Services. The key stakeholders and their roles are defined below.

Table 7: Key Stakeholders

| Key Stakeholders | Roles in Asset Management |
|-------------------------|---|
| Council Officers | Council officers play a role in managing Stormwater assets to ensure that they provide a level of service that meets the needs of both residents and visitors to the area. |
| Council Representatives | This stakeholder group includes Councillors and the Mayor for the Council. They are primarily responsible to ensure that their decisions represent and reflect the needs of the wider community. |
| Residents | Residents are the core users of building assets. Their needs, wants and expectations are conveyed to Council, which should be reflected in the desired levels of service. |
| Insurers | Insurers have an interest to drive the implementation of systems, which would allow Council a better position in the knowledge of the condition of our assets. This should be reflected in by the number of claims made against this asset group. |

Current and Desired Levels of Service

This AMP is prepared to facilitate consultation prior to adoption of levels of service by Gunnedah Shire Council.

Future revisions of the AMP will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

The International Infrastructure Management Manual describes Levels of Service (LoS) as *'defined service quality for an activity or service area against which service performance may be measured'*.

Table 8: Customer (Community) Levels of Service

| Strategic Goal | Performance Measure | Level of Service | Performance Measure | Target |
|--|---------------------|---|---|--------|
| 1.5 Strategically managed infrastructure | Quality | Manage rain events up to the one in five-year intensity | Performance measures and KPIs have not yet been determined. | |
| | Function | Manage all rain events up to one in five-year event | | |
| | Availability | Available at all times | | |
| | Safety | <ul style="list-style-type: none"> Stormwater system is safe Stormwater in road reserves and open spaces is managed | | |

Table 9: Technical Levels of Service

| Strategic Goal | Performance Measure | Level of Service | Performance Measure | Target |
|--|---------------------|--|--|--|
| 1.5 Strategically managed infrastructure | Condition | Assets are kept in reasonable condition | Condition rating | 100% of assets <5 |
| | Cost | Council sets a fixed upper limit through its AMP process | Performance of the network as required by the community level of service KPIs and budgetary compliance | <p>Construction works are completed within budget.</p> <p>Maintenance works are completed within budget.</p> |

Future Demand

Gunnedah Shire is located in the Upper Namoi Valley in the North West of New South Wales and covers an area of 5,092 square kilometres. It shares borders with Tamworth Regional Council and the Shires of Liverpool Plains (Quirindi), Narrabri and Warrumbungle (Coonabarabran).

The town of Gunnedah is the service hub of the Shire. Outlying villages include Curlewis and Breeza to the southeast, Carroll to the east and Tambar Springs and Mullaley to the southwest.

By road Gunnedah is approximately 450 kilometres from Sydney, and 655 kilometres from Brisbane. It is serviced by road and rail, being on the North-West rail line and having easy access to main highways. Air services are provided by Tamworth Airport 70 kilometres to the east. Notwithstanding this, Gunnedah retains a high quality airport facility.

Agriculture and Coal Mining are two important industries together with many service industries. Together they provide wealth and the rare opportunity for secondary and tertiary industry to establish close to both sources of energy and a wide variety of raw materials.

Tourism is also a large and growing industry and the Shire offers a broad range of facilities and interesting activities for both visitors and the resident community.

Residents also enjoy the advantages of a more relaxed but convenient country lifestyle combined with a high standard of community services. Education and health needs are well catered for along with care for the disabled and aged care facilities second to none.

The community actively supports and participates in a wide variety of sporting and cultural activities. Gunnedah offers a large range of outdoor and indoor sporting facilities catering for all groups of the community.

Gunnedah, while having its own sporting and cultural activities, consistently hosts activities that are of State and International level.

Gunnedah Shire has the best of all worlds when it comes to the environment. The Shire has adequate rainfall, clean water, a climate that has moderate temperatures, plenty of sunshine, and much fauna and flora.

The population has been in a slow decline over the past few years but with an increase in industry and those looking for a “tree change” lifestyle it is hoped this trend will reverse.

Factors affecting demand include population change, change in demographics, seasonal factors, preferences, economic factors, expectations, environmental awareness, etc.

The following technology changes are likely to have an impact on Asset Life, Renewal Costs, and Data Management:

- Pipe lining – may extend stormwater network component lives
- Concrete, steel and poly technology – improvement in materials reducing maintenance and extending structure lives

- Field Data Loggers – allows for Council to complete its inspection program using GPS and on-site data input to update asset and maintenance management systems quickly and cost effectively

The impact of these technologies has been reflected in future estimates of design life and asset replacement costs.

Council currently manages its stormwater network to deliver a safe system that manages all rain events up to a one in five year event. This target is not satisfactory and Council often receives complaints regarding property inundations, sometimes resulting in insurance claims.

Council has plans to increase the capacity of its network over the next ten years to be able to manage rain events up to a ten year rain event.

As development occurs, this plan will need to be amended to ensure that future development stormwater is managed to the one in ten years or greater rain event. This must be completed in conjunction with the kerb and gutter asset management plan.

Life Cycle Planning/Strategies

The lifecycle management plan details how Gunnedah Shire Council plans to manage and operate the assets at the agreed levels of service while managing life cycle. The assets covered by this Stormwater AMP are shown in the Asset Information section above.

This section presents an analysis of Council's Stormwater assets information and the lifecycle management plans covering the four key work activities to manage Stormwater assets.

Operations Plan

Operational activities are regular ongoing practices that keep the Stormwater assets functional and ready for use. Operational activities do not affect the condition of the asset and include activities such as defect inspections.

Maintenance Plan

In order to manage Stormwater infrastructure, maintenance works are completed throughout the year at agreed intervals.

Generally, the gross pollutant traps are emptied each quarter, although during wetter periods this cycle may need to occur more frequently. Pipe blockages and failures are generally reported through Council's road inspection process, through inspection of the stormwater system by the Engineering section or through customer complaints. Once assessed, the pipe may need to be dug up and replaced, dug up and repaired or cleaned with the use of water blasting and suction to remove debris. This work is difficult to program and is completed as a result of the defect being discovered. During wetter periods, defects are more likely to become an issue to Council.

Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential.

Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified through asset lifecycle modelling using the Brightly Predictor modelling software. This uses asset specific condition assessments and degradation profiles to understand the current condition, forecast the expected year of renewal works, propose the type of renewal works required, and provide a strategic estimate for the renewal cost. It is noted that the software provides works candidates using technical criteria that are then reviewed and prioritised into a delivery program.

Acquisition Plan

Acquisitions are new assets which did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to Council.

Proposed upgrade of existing assets, and new assets, are identified from various sources such as community requests, service manager studies and proposals identified by strategic plans. Potential upgrades and new works should be reviewed to verify that they are essential and non-asset solutions should always be considered.

There are currently no planned acquisition works planned across the 10-year planning period.

Selection Criteria

When Council commits to new assets, they must be prepared to fund future operations, maintenance, and renewal costs. They must also account for future depreciation when reviewing long term sustainability. This is outlined in Council's Asset Management Policy.

Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Council's Asset Disposal Policy outlines this process.

There are currently no planned disposal works planned across the 10-year planning period.

Financial Summary

This section contains the financial impacts and requirements from all the information provided in the previous sections.

Financial predictions can be improved when further information becomes available and documented in future AMPs, on desired levels of service and current and projected future asset performance.

Two funding scenarios have been developed, firstly a scenario that models the current LTFP funding allocation, which has no current allocation of renewal budget per annum.

Secondly, a Desired LoS required funding scenario demonstrates the required expenditure to meet the desired levels of service by adopting an unconstrained budget in the supporting lifecycle model. The summary of costs for the desired level of service is below:

Table 10: Summary of Cost Forecasts

| Year | Current LTFP Funding Scenario (\$0 Renewal Budget) | | | | Desired LoS Required Funding | | | |
|---------------------------|---|---------------|--------------------|--------------------------------|------------------------------|------------------|-------------------|--------------------------|
| | O & M Costs | Renewal Costs | Acquisition Costs | Work Bank Backlog | O & M Costs | Renewal Costs | Acquisition Costs | Work Bank Backlog |
| 1 | \$33,740 | \$0 | \$0 | \$810,860 | \$32,633 | \$810,860 | \$0 | \$0 |
| 2 | \$34,080 | \$0 | \$0 | \$810,860 | \$33,285 | \$- | \$0 | \$0 |
| 3 | \$34,637 | \$0 | \$0 | \$810,860 | \$33,842 | \$- | \$0 | \$0 |
| 4 | \$35,170 | \$0 | \$0 | \$820,693 | \$34,308 | \$9,833 | \$0 | \$0 |
| 5 | \$35,809 | \$0 | \$0 | \$824,418 | \$34,945 | \$3,725 | \$0 | \$0 |
| 6 | \$36,368 | \$0 | \$0 | \$839,167 | \$35,391 | \$14,750 | \$0 | \$0 |
| 7 | \$36,952 | \$0 | \$0 | \$861,366 | \$35,858 | \$22,199 | \$0 | \$0 |
| 8 | \$37,371 | \$0 | \$0 | \$861,366 | \$36,331 | \$- | \$0 | \$0 |
| 9 | \$37,732 | \$0 | \$0 | \$861,366 | \$36,692 | \$- | \$0 | \$0 |
| 10 | \$38,033 | \$0 | \$0 | \$927,812 | \$36,976 | \$66,446 | \$0 | \$0 |
| Total | \$359,891 | \$0 | \$0 | \$927,812 (Closing) | \$350,263 | \$927,812 | \$0 | \$0 (Closing) |
| Net Strategy Costs | | | \$1,287,703 | | Net Strategy Costs | | | \$1,278,075 |

Asset Valuations

Council undertakes ‘Revaluations’ in line with the Asset Management Policy. Valuations are undertaken in alignment with Australian Accounting Standard ‘AASB13 Fair Value’.

Valuations are required every three to five years and are independently audited. Valuations are undertaken to satisfy the financial reporting requirements and to understand the cost to replace assets.

Maintenance and Operations Trends and Forecasts

Current maintenance and operational budget levels appear insufficient to keep the assets in the appropriate level of service.

Insufficient funds would impact the operations of the pipes and pits and may cause unforeseen asset failures.

Forecast operations and maintenance costs are expected to vary in relation to the total value and condition state of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of, the forecast operation and maintenance costs are expected to decrease.

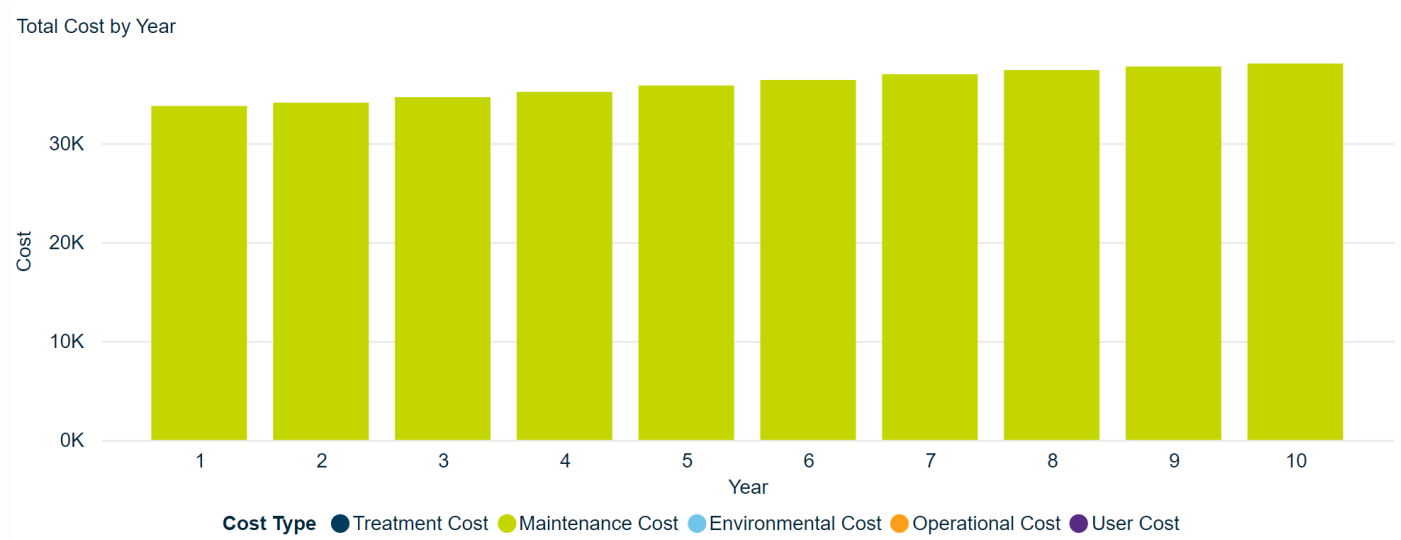


Figure 2: Forecasted Operational Funding Requirements

Table 11: Operational and Cost Summary

| Year | Operational Costs | Current LTFP Funding Scenario (\$0 Renewal Budget) | | Desired LoS Required Funding | |
|--------------|-------------------|---|----------------|------------------------------|----------------|
| | | Maintenance Cost | Ave. Condition | Maintenance Costs | Ave. Condition |
| 1 | \$0 | \$33,740 | 1.91 | \$32,633 | 1.91 |
| 2 | \$0 | \$34,080 | 1.94 | \$33,285 | 1.85 |
| 3 | \$0 | \$34,637 | 2.00 | \$33,842 | 1.91 |
| 4 | \$0 | \$35,170 | 2.11 | \$34,308 | 2.02 |
| 5 | \$0 | \$35,809 | 2.21 | \$34,945 | 2.11 |
| 6 | \$0 | \$36,368 | 2.31 | \$35,391 | 2.21 |
| 7 | \$0 | \$36,952 | 2.39 | \$35,858 | 2.28 |
| 8 | \$0 | \$37,371 | 2.48 | \$36,331 | 2.35 |
| 9 | \$0 | \$37,732 | 2.54 | \$36,692 | 2.42 |
| 10 | \$0 | \$38,033 | 2.60 | \$36,976 | 2.47 |
| Total | \$0 | \$359,891 | 2.64 | \$350,263 | 2.51 |

The above forecasts indicate that the current maintenance cost allocation is insufficient to continue to service the portfolio and will continue to increase over time alongside the degradation of the stormwater assets if there continues to be no renewal budget allocated.

The effect of poorer condition states increasing maintenance costs can be seen by comparing the two scenarios, with more costs experienced by the Current LTFP Funding Scenario (\$0 renewals budget, therefore reduced condition states and increased maintenance costs).

Future Renewal Forecast

Traditionally Council has not had a dedicated budget for Stormwater renewals and this has been modelled in the Current LTFP Funding Scenario.

The forecasts are shown in the below figures and table:

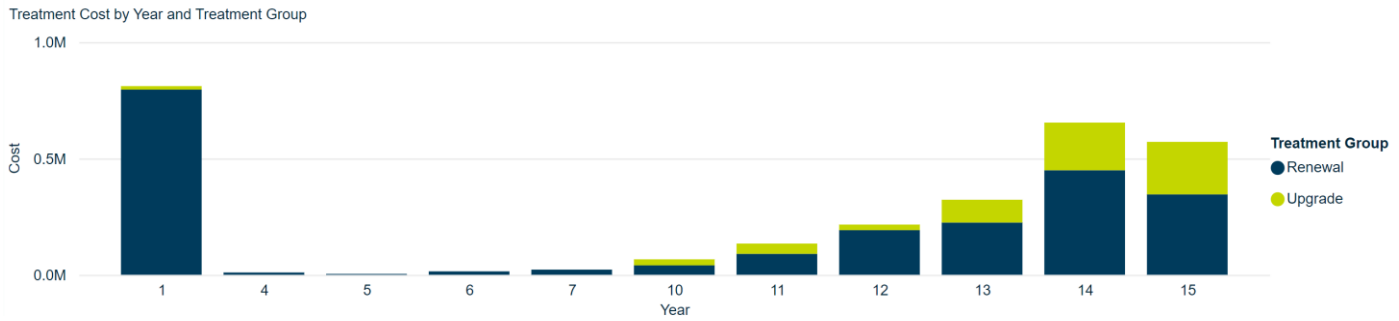


Figure 3: Total Renewal Costs by Year – Desired LoS Scenario

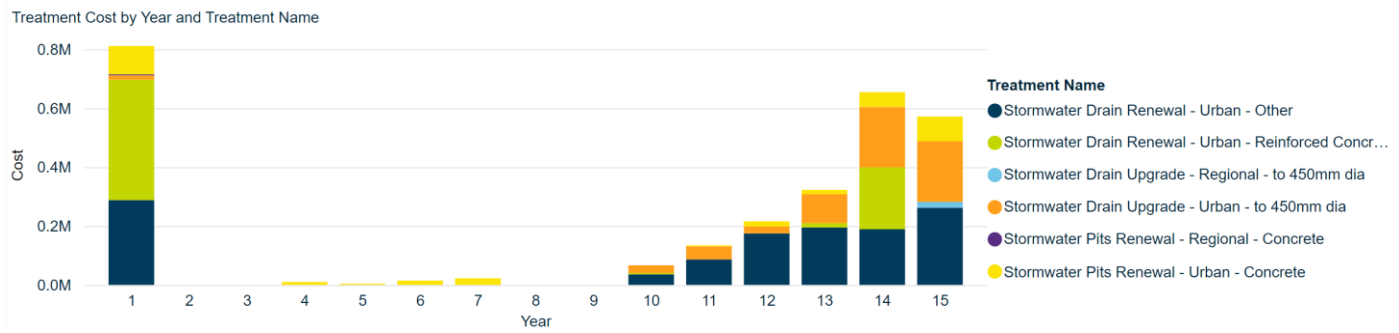


Figure 4: Total Renewal Costs by Year and Treatment Type – Desired LoS Scenario

Additional analysis is being undertaken to uplift data confidence and maturity to better inform actual funding requirements.

Table 12: Renewal Cost Summary

| Year | Current LTFP Funding Scenario (\$0 Renewal Budget) | | Desired LoS Required Funding | |
|--------------|---|----------------|------------------------------|----------------|
| | Renewal Cost | Ave. Condition | Renewal Costs | Ave. Condition |
| 1 | \$0 | 1.91 | \$810,860 | 1.91 |
| 2 | \$0 | 1.94 | \$- | 1.85 |
| 3 | \$0 | 2.00 | \$- | 1.91 |
| 4 | \$0 | 2.11 | \$9,833 | 2.02 |
| 5 | \$0 | 2.21 | \$3,725 | 2.11 |
| 6 | \$0 | 2.31 | \$14,750 | 2.21 |
| 7 | \$0 | 2.39 | \$22,199 | 2.28 |
| 8 | \$0 | 2.48 | \$- | 2.35 |
| 9 | \$0 | 2.54 | \$- | 2.42 |
| 10 | \$0 | 2.60 | \$66,446 | 2.47 |
| Total | \$0 | 2.64 | \$927,812 | 2.51 |

A breakdown of asset condition at year 10, based on the two modelled scenarios, is displayed below:

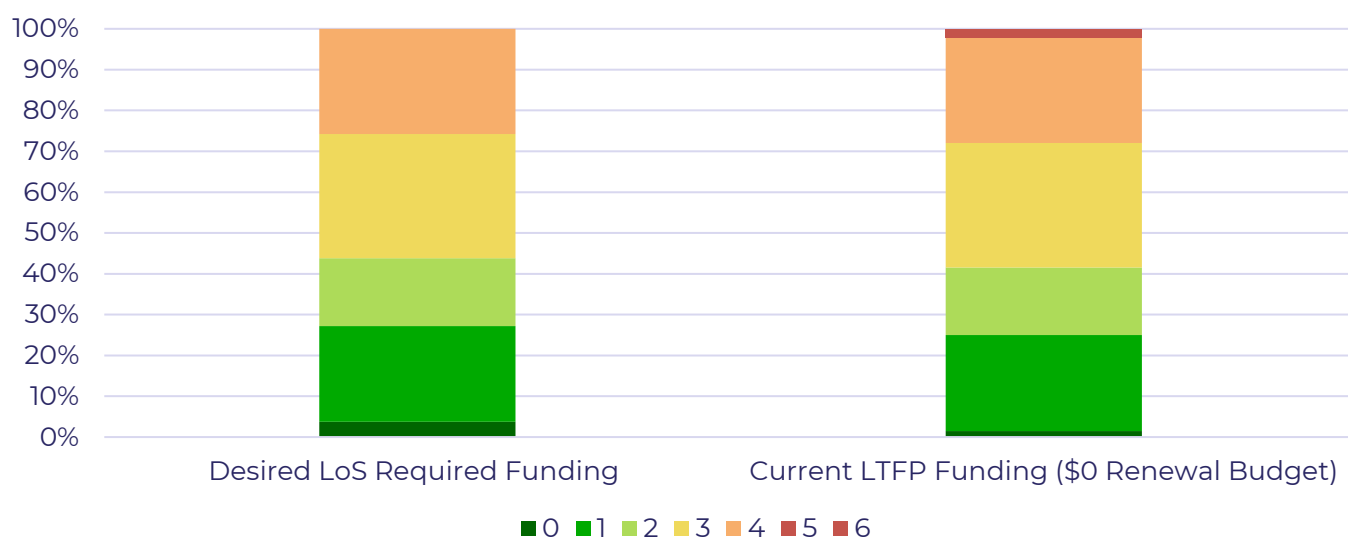


Figure 5: Condition Distribution Scenario Comparison at Year 10

Table 13: Condition Distribution Scenario Comparison at Year 10

| Scenario | 0 | 1 | 2 | 3 | 4 | 5 | 6 | N/A* |
|--|-------|--------|--------|--------|--------|-------|-------|-------|
| Current LTFP Funding (\$0 Renewal Budget) | 3.73% | 23.49% | 16.55% | 30.48% | 25.75% | 0.00% | 0.00% | 3.73% |
| Desired LoS Required Funding | 1% | 23% | 17% | 30% | 26% | 1% | 2% | 1% |

*N/A represents assets that have been disposed by year 10.

Currently there is no allocated funding for Stormwater renewals in the LTFP. Reviewing the performance of this scenario shows that it will be unsustainable to continue to adopt this approach, with 30% of the portfolio projected to be in a poor condition state (4) or worse by year 10.

Future Acquisition Forecast

No future acquisitions are planned at this stage.

Assumptions

Significant assumptions were made in the development of this AMP and its underlying predictive analysis.

- Remaining useful lives have been used unadjusted as provided from the Finance system and are assumed to have a variance in life that is considerate of the installation location and materials
- Asset replacement value has been used directly from the Finance system information and unit rates per metre for drains has been assumed using best knowledge
- Only the maintenance budget has been applied as work is still being done to confirm a capital renewal budget
- An age-based condition rating was calculated as the current condition data is based off a sample of assets that appear to be in very good condition despite a large portion of the assets having an original install date of 1910s

Data Confidence

The expenditure and valuations projections in this AMP are based on best available corporate data. Currency and accuracy of data is critical to effective asset and financial management.

The confidence in the data for this AMP is Low

Risk Management

This section follows the process outlined in Australian Standard AS/NZS 31000:2009 Risk Management.

After the assessment of Council's stormwater infrastructure via in-situ footage, the infrastructure will be put through a risk assessment process that will identify the priority of reconstructing infrastructure to ensure the one in five year rain events are managed and that new infrastructure is constructed to ensure this level of service is met. Once this risk management is completed, the infrastructure will be assessed to determine what work is required to meet the one in ten year rain event level of service. These assessments are to be determined using best practice.

Table 14: Risk Management Plan

| Risk | Risk Rating | Control Measure / Treatment Approach | Responsibility |
|--|-------------|--|-------------------------------|
| Infrastructure fails, property damage, reduced road safety, pollution entering waterways | 4 | Council undertakes inspections, both above ground and in-situ to ensure that infrastructure is repaired and replaced as determined by the risk management priority system described in above | Engineering Services Works |
| Blockage, property damage, reduced road safety, pollution entering waterways | 4 | Inspections and complaints are inspected within risk management prioritisation and customer service requirements | Engineering Services Works |
| Not constructed, property damage, reduced road safety, pollution entering | 3 | Current and future development is managed through the risk management system. Works are funded by Council | Engineering Services Works |

Plan Improvement and Monitoring

This plan is to be reviewed and update alongside any major changes to legislation or internal policies or strategies, or when required.

Monitoring and Reviewing

The Asset Management Plan is not a one-off document but part of the Council's business planning process. For this reason, it is necessary to review and update any key assumptions, strategic change or budget decision that may affect the planned service levels and future expenditure requirements.

To keep this AMP current, Council will schedule the plan review into its strategic and annual planning and budget processes. The asset management plan has a life of 4 years (or in line with the next revaluation of the asset group to assist with better data being available).

Improvement Plan

Table 15: Improvement Plan

| Improvement Item | Action(s) | Responsibility |
|---|---|----------------------------|
| Quality of data | Review and uplift data quality, including hierarchy, condition, asset value or replacement value and useful life. This is currently underway. | Engineering Services Works |
| Budget requirements | Once data quality has been uplifted to sufficient level, budget should be reviewed and appropriately allocated for both capital and operational requirements. | Finance |
| Predictor model to be updated | Once data has been updated to meet sufficient reporting requirements, Predictor model should be updated to reflect these changes. | Engineering Services |
| Asset condition | <p>An updated condition assessment for these assets has been identified as a priority item, given the optimistic condition of the data despite the age of many assets being over 100 years old with the oldest install dates being 1910.</p> <p>An age-based condition rating has been calculated for the purpose of this AMP and modelling but this is an estimate based on industry degradation profiles.</p> | Engineering Services Works |
| Levels of Service are not yet underpinned by service review data and other benchmarks | Levels of Service and associated Performance Measures and KPIs to be further developed once service reviews have been undertaken in all key areas relating to the AMP. | Engineering Services Works |