

ASSET MANAGEMENT PLAN

District Council of Grant
Stormwater

District Council of

Grant



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NAMS+ offers several Asset Management templates.

The asset owner can choose the template that best suits their circumstances.

The structure and content of this template is aligned to the International Infrastructure Management Manual and the ISO 550xx and 31000 series of standards. In some instances, the asset owner may choose to reformat/restructure content or only use the Executive Summary. IPWEA takes no responsibility for the end product.

This Asset Management Plan should be prepared in line with the Strategic Asset Management Plan (also referred to as an AM Strategy) and AM Policy and used to inform the Long-Term Financial Plan.

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1.0 EXECUTIVE SUMMARY

Our community relies on a diverse portfolio of infrastructure assets, including Stormwater Pipes, Pits and Bores valued at approximately \$1,453,050.

The Asset Management Plan (AM Plan) provides a strategic framework for managing our community's infrastructure assets, ensuring they remain safe, reliable, and capable of meeting current and future demands.

1.1 Purpose of the Plan

The AM Plan aims to:

- Provide a systematic approach to asset management.
- Address critical risks associated with aging infrastructure and limited funding.
- Ensure infrastructure supports the community's social, economic, and environmental goals.

This AM Plan details information about Stormwater Assets with key actions required to maintain service levels, optimise lifecycle costs, and support long-term financial sustainability.

The plan defines the services, how they are provided and what funds are required to provide the services over the 20 year planning period. The AM Plan expenditure forecasts inform the Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

The Stormwater network comprises:

- 187 Stormwater Pits
- 23 Stormwater Drainage Bores
- 399 Stormwater Pipes
- Spread across Township and Rural Areas

The above infrastructure assets have replacement value estimated at \$1,453,050.

1.3 Levels of Service

This plan covers the infrastructure assets that provide Stormwater and Drainage services to the Community.

Current Levels of Service meet community expectations however this may change in the future with impact from evolving weather patterns and Climate Change.

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

The main service consequences of the planned budget are:

- Existing functionality of Assets to remain
- Increase risk of failure / flooding in increasingly extreme weather events

1.4 Future Demand

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

- Steady increase in population and evolution in demographics
- Increase levels of Development, particularly in the 'Rural Living' space
- Environmental factors including Climate Change, Extreme Weather events and Environmentally Friendly Design and Construction practice development
- Potential for legislative change

Strategies to manage these demands are discussed in Section 4.0.

1.5 Lifecycle Management Plan

How we plan to manage and operate the assets at the agreed levels of service throughout their lifecycle is contingent on 10-year Long-Term Financial Plan (LTFP).

Furthermore, when District Council of Grant commits to the upgrade of existing and acquisition of new assets, future operations, maintenance and renewal costs including depreciation will increase.

1.5.1 What does it Cost?

The lifecycle costs necessary to provide the services covered by this AM Plan include operations, maintenance, renewal and upgrade of existing assets, and the acquisition of new assets to meet demand. Disposal of assets is also considered.

When lifecycle costs are prepared for a minimum 10-year planning period, they can be used to inform the 10-year LTFP. The first 10-year lifecycle forecast is estimated to cost \$341,362 or \$34,136 on average per year.

Depreciation is excluded from these cost estimates.

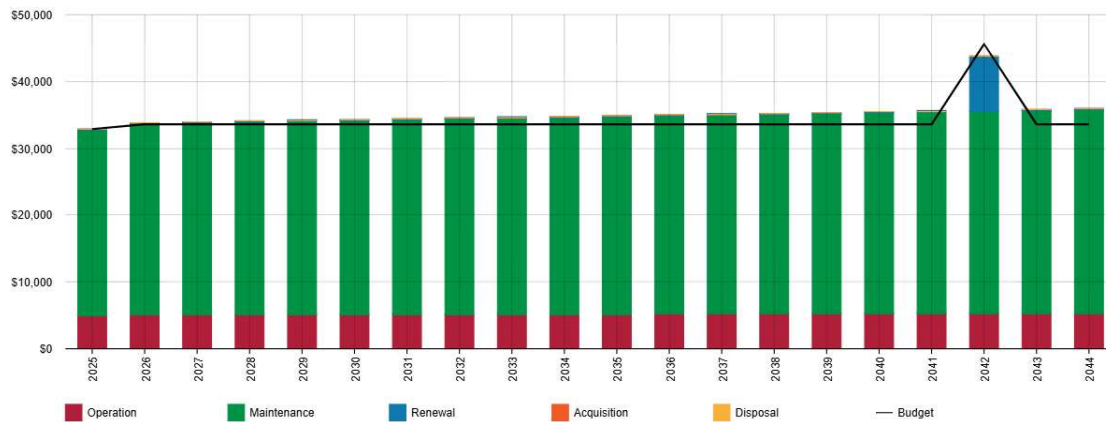
1.5.2 What we will do

The funding made available in the first 10-years' of the LTFP is \$335,287 or \$33,529 on average per year which is approximately 98.22% of the cost to undertake the lifecycle activities.

The reality is, only what is funded in the LTFP can be provided. Informed decision making depends on the AM Plan emphasising the consequences of planned budgets on the service levels provided and communicating the residual risks. It is important to ensure the organisation is delivering the services in a financially sustainable manner.

The 10-year LTFP results in a shortfall of \$-608 on average per year of the forecast lifecycle costs required to provide services. This is shown in the figure below.

The LTFP, on average, for the first 10-years is sufficient to provide services. This is shown in the figure below.



Forecast Lifecycle Costs and Planned Budgets

Amounts are shown in real values (i.e., current values, net of inflation).

We plan to provide Stormwater services for the following:

- Operation, maintenance, renewal and acquisition of Stormwater Pits, Pipes and Drainage Bores to meet service levels set by District Council of Grant in annual budgets.
- No major Asset Renewals within the 10-year planning period, however the steady acquisition of contributed Assets by developers as residential growth continues.

1.5.3 What we cannot do

We currently allocate enough budget to sustain services at the proposed standard including the provision of new where applicable assets. Works and services that can be provided under present funding levels are:

- Continued Operation and Maintenance at the current standards within the 10-year planning period.
- Operate and Maintain Stormwater services with minor budget increases as contributed Assets are aquired within the 10-year planning period.

1.6 Risk Management

The planned budget is sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Stormwater and Civilian Risk due to stormwater pipe collapse in the event of pavement failure
- Stormwater Asset and Property damage due to extreme weather event

Strategies and actions to manage these risks are discussed in Section 6.0.

1.7 Financial Summary

Providing financially sustainable and affordable services from infrastructure requires the careful management of service levels, costs and risks.

The 10-year LTFP is \$33,529 on average per year giving a 10 year funding shortfall of \$-608 per year. This indicates that 98.22% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the LTFP.

Asset values are forecast to increase as additional assets are added to service.

1.8 Monitoring and Improvement Program

Key assumptions made in this AM Plan are:

All current assets will remain within the organisation's ownership throughout the planning period, with no Assets being disposed of.

Renewal forecasts are based on costs associated with like for like or modern equivalent replacement and are based off current design standards and any legislated requirements. They do not account for additional costs to upgrade assets.

The renewal forecasts consider asset condition, asset functionality and integrated planning principles.

Asset remaining useful life estimates are based off asset condition data, renewal intervention levels aligned with current levels of service and technical asset deterioration profiles which are based on the judgement and experience of internal staff and available industry standards.

The Asset Register Method was used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on a reliable level of confidence information.

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

Review and update operations and maintenance standards, to develop more structured and proactive maintenance regimes which provide an acceptable balance between cost, risk, and customer expectations.

Include changes into future revisions of this Asset Management Plan and Long-Term Financial Plan.

Continue to work in partnership with both the State and Federal Governments to pursue external funding opportunities for both renewal and significant upgrade/new Stormwater projects.

Comprehensive review of long-term Capital New and Upgrade program for integration into Asset Management Plans and Long-Term Financial Plans, to be integrated going forward

2.0 INTRODUCTION

2.1 Background

This AM Plan communicates the actions and necessary funds required to sustainably deliver services through the careful management of assets for the foreseeable future.

The AM Plan is to be read with the District Council of Grant planning documents. This should include the Asset Management Policy and Strategy, where developed, along with the following planning documents:

- District Council of Grant Strategic Plan 2024-2034
- District Council of Grant Long Term Financial Management Plan
- Inner Townships Master Plan
- Greater Mount Gambier Master Plan
- Port MacDonnell Urban Design Framework and Master Plan
- River & Coastal Communities Urban Design Framework and Master Plan
- Rural Living and Township Zones Boundaries Review and Master Plan

The infrastructure assets covered by this AM Plan include Stormwater Pipes, Pits and Drainage bores over the entire District from Tarpeena to Donovans and across to Carpenter Rocks. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to provide Stormwater Disposal services to the residents of District Council of Grant.

The infrastructure assets included in this plan have a total replacement value of \$1,453,050.00.

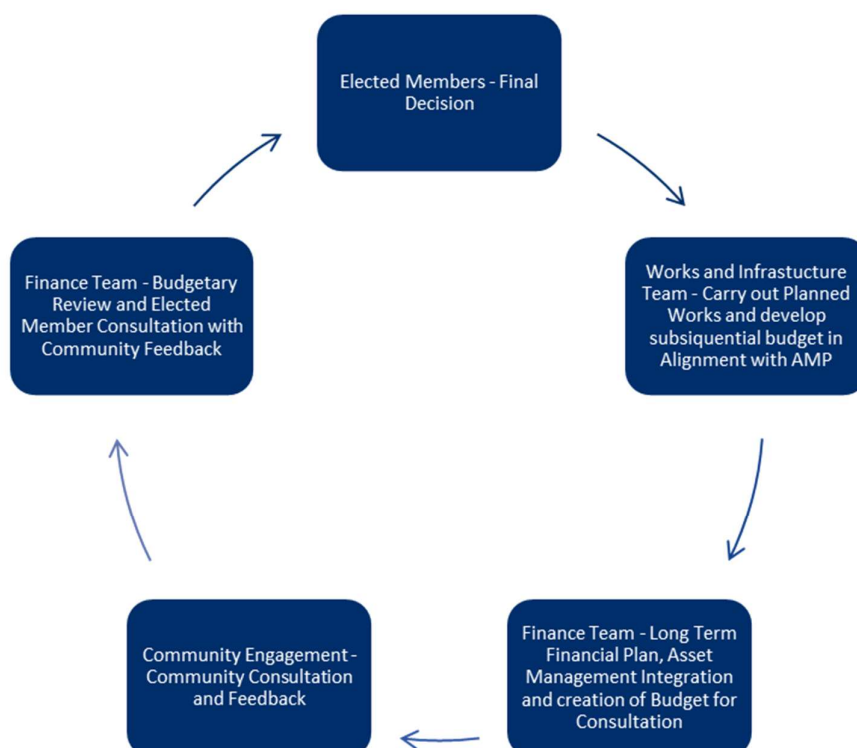
Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Members	Represent needs of community/shareholders, Allocate resources to meet planning objectives in providing services while managing risks, • Ensure service sustainable.
CEO and Senior Management	Endorse the development of asset management plans and provide the resources required to complete this task. Set high level priorities for asset management development in Council and raise the awareness of this function among Council staff and contractors. Support the implementation of actions resulting from this plan and prepared to make changes to a better way of managing assets and delivering services. Support for an asset management driven budget and LTFP.

Key Stakeholder	Role in Asset Management Plan
Works Staff	Provide local knowledge level detail on all transport assets. They verify the size, location and condition of assets. They can describe the maintenance standards deployed and Council's ability to meet technical and customer levels of service.
Finance Staff	Consolidating the asset register and ensuring the asset valuations are accurate. Development of supporting policies such as capitalisation and depreciation. Preparation of asset sustainability and financial reports incorporating asset depreciation in compliance with current Australian accounting standards. Asset management and GIS support and administration.
Residents and Businesses	Those who reside, work or have involvement with property adjoining Stormwater Assets.
Utility Agencies	Those utility service providers sharing use of the Stormwater easements and trenches (water, sewerage, gas, electricity and telecommunications).
Suppliers of Goods and Services	Need to be aware of and notify management of impacts that may enhance or impede their ability to provide key services.

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Principles, Goals and Objectives of Asset Management

The principles of asset management as per the International Standards for asset management are:

- **Value:** asset management focuses on the value assets provide to the organization over time.
- **Alignment:** asset management aligns financial, technical and operational decisions with the organizational objectives, promoting vertical and horizontal coordination.
- **Leadership:** leadership and sustained commitment at all levels are crucial for successful asset management.¹

Our goal for managing infrastructure assets is to deliver the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers.

The key objectives of infrastructure asset management as defined by the International Infrastructure Management Manual are:

- Defining levels 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
- Linking to a Long-Term Financial Plan which accommodates the required expenditure and how it will be funded.²

¹ ISO 55000:2024 Asset Management – Vocabulary, overview, and principles

² IPWEA International Infrastructure Management Manual (IIMM), Sec 1.2.1

3.0 LEVELS OF SERVICE

Levels of service define the standards and performance targets that infrastructure assets are expected to meet to ensure they provide reliable, safe, and efficient services to the community.

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the Elected Members of the District Council of Grant. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the Elected Members 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.

Table 3.1 summarises the results from our Customer Satisfaction Survey.

Table 3.1: Customer Satisfaction Survey Levels

Service Attribute	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service
Quality/ Condition	Provide well maintained stormwater facilities that meet community expectation	User satisfaction measurement survey	Community satisfaction $\geq 80\%$	<i>Not Recently Measured (See Note Below)</i>
Function/ Safety	Provide stormwater system that is low risk to community	Number of injuries/ property damage	< 5 per annum	2017/18 - 0
	Absence of significant Work Health and Safety hazards	All significant hazards identified and removed or mitigated where possible.	Adequate documentation to ensure hazards identified and mitigated against. Measures in place to manage any incident.	Ongoing
Capacity/ Utilisation	Ensure stormwater facilities have appropriate design capacity	Customer requests relating to property flooding	<5 Per Annum	2017/18 - 6

3.2 Strategic and Corporate Goals

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

Our vision is:

We are a district of welcoming, inclusive and vibrant coastal and rural communities within the Limestone Coast. With a pristine environment, relaxed rural lifestyle, quality services and a prosperous local economy, this is a great place to live, conduct business and a welcoming destination to visit and stay.

Our mission is:

To provide a range of services which meet the environmental, social and economic needs of our community.

Strategic goals have been set by the District Council of Grant. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

Table 3.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Community	A connected, inclusive, resilient and engaged community	Governance of provision of Assets that facilitates the Communities ability to connect
Economy	A growing and vibrant economy, optimising our diverse primary industries and unique natural assets	Ensuring the fiscal responsibility of development, operation, maintenance, renewal or upgrade and disposal of the assets
Environment	A sustainable district that values the natural qualities and heritage that underpin our health, liveability and economy	Provision of strategy surrounding the development and renewal of assets in an environmentally conscious manner
Infrastructure	Reliable and contemporary infrastructure that meets the needs of our community, industry and visitors	Facilitate the discussion of appropriate levels of service, intervention point and ongoing budget for associated infrastructure works
Council	A strategic and financially sustainable Council that values its people and delivers quality services	Enable the strategic and financial conversation around management of assets and facilitate consultation and education

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the Stormwater service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1999	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term Financial Plan.
Civil Liability Act 1936	Liability of road authorities – Section 42, May 2004 inclusion in the Act to provide a replacement for the nonfeasance defence consequent to May 2001 High Court judgement.
Disability Discrimination Act 1992	The objectives of this act are to eliminate, as far as possible, discrimination against persons on the grounds of disability. It sets the standard for accessibility.
Development Act 1993	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate.
Work Health and Safety Act 2012	An Act to provide for the health, safety and welfare of persons at work.
National Asset Management Framework Legislation 2010	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. AM plans are likely to be audited.
Building Code of Australia	Defines Standards around the construction and design of new and renovated infrastructure

3.4 Customer Values

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

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective:			
Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Provide well maintained stormwater facilities that meet community expectation	User satisfaction measurement survey	Not Recently Measured	Intended target of >80% customer satisfaction
Provide stormwater system that is low risk to community	Reported Injuries in association with Stormwater Assets	0	Expected to be maintained
Absence of significant Work Health and Safety hazards	Adequate documentation to ensure hazards identified and mitigated against. Measures in place to manage any incident.	Ongoing	Ongoing
Ensure stormwater facilities have appropriate design capacity	Customer Request in regards to Private Property Flooding	<5 Per Annum	Expected to be maintained

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good is the service ... what is the condition or quality of the service?

Function Is it suitable for its intended purpose Is it the right service?

Capacity/Use Is the service over or under used ... do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

<i>Type of Measure</i>	<i>Level of Service</i>	<i>Performance Measure</i>	<i>Current Performance</i>	<i>Expected Trend Based on Planned Budget</i>
Condition	Provide well maintained stormwater facilities that meet community expectation	Less than 5% of Assets in condition rating 4 or higher	0.1%	Expected to be maintained
	<i>Confidence levels</i>		High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)	High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)
Function	Absence of significant Work Health and Safety hazards	Less than 5 injuries per Annum	0	Expected to be maintained
		Less than 10 reported failures per Annum	3 Failures	Expected to be maintained
	<i>Confidence levels</i>		High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)	High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)
Capacity	Private Properties have no stormwater impacts from Council	Less than 5 Customer Service requests regarding Stormwater	1 Customer Service Request	Expected Level of Service to be maintained

	Infrastructure or Road Safety Hazard			
	Confidence levels		High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)	High High (Professional Judgement supported by extensive data) Medium (Professional judgement supported by data sampling) Low (Professional Judgement with no data evidence)

Table 3.5: Customer Level of Service Measures

3.6 Technical Levels of Service

Technical Levels of Service – To deliver on the customer values, and impact they have on Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the lifecycle activities (see Section 5) and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the lifecycle activities related to the current 10 year planned budget, and the forecast costs recommended in this AM Plan.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition/Upgrade	New assets designed and constructed in accordance with Development Act, Building Code, Local Government Act and related Council policies and Australian Standards.	All new stormwater drainage assets.	Audit of contract documentation by internal and external parties for financial, environmental and safety compliance of projects. Design Consultancy to be provided with minimum Council policy	Audit of contract documentation by internal and external parties for financial, environmental and safety compliance of projects. Design Consultancy to be provided with minimum Council policy

³ IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
			requirements and to meet required standards.	requirements and to meet required standards.
		Budget	<i>Within Budget</i>	Within Budget
Operations and Maintenance	Assets inspected periodically to assess condition and performance.	Visual and CCTV Inspections	Ongoing	Ongoing
	Culvert and Pipe cleaning	Adherence to budget	2024/2025 80%	100% of budget
		Budget	\$33,519	\$34,037
Renewal	Assets renewed at the end of their useful life.	All assets targeted for renewal as part of whole-of-life approach.	Condition based inspections of system to form backbone of the continued refinement of the whole-of-life Model.	Condition based inspections of system to form backbone of the continued refinement of the whole-of-life Model.
	Ensure Contributed Assets are built to appropriate standards	Inspections and Hold Points during construction phase	90% of Inspections and Hold Points attended	100% of Inspections and Hold Points attended
		Budget	\$10	\$100

Note: * Current activities related to planned budget.

** Expected performance related to forecast lifecycle costs.

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

4.0 FUTURE DEMAND

Future demand refers to the anticipated need for infrastructure services driven by factors such as population movement, economic development, technological advancements, and changing environmental or community expectations.

4.1 Demand Drivers

A demand driver refers to the factors or trends that influence the need for infrastructure services and capacity. The factors influencing future demand are created by:

- Population and Demographic change
- Environmental changes
- Economic changes
- Standards, Codes and Legislative changes

Demand drivers help predict future infrastructure needs and guide planning and investment decisions.

4.2 Demand Forecasts

The current position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented in Table 4.3.

4.3 Impacts and Demand Management Plan

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

The impact on service delivery will be managed through a combination of managing and upgrading existing assets and the provision of new assets to meet demand. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

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

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Aging Population	65+ years: 19.2% <19 years: 22.8% Median Age 45 years Senior to District Migration in 2021 of 300 people	Expected Growth in the Aging Population due to moderate climate, lower cost of living and high middle-aged population.	Increase focus on levels of service provided by footpaths, roads, playgrounds, boating facilities, carparks and its associated infrastructure in respect to access and egress and elevated risk to the aging and very young population	Implementation of Council's Disability Access Inclusion Program, continued consultation with at risk communities and inspection / risk management of assets. Inspections during extreme weather events to ensure stormwater does not impact.
Climate Change	Current weather patterns starting to change	Increased Extreme Weather Events and	Potential for damage to existing Infrastructure and reduced useful life of components	Ensuring construction and maintenance of Assets aligns with current and evolving best practice

		Rising Sea Levels		Continued research and training in new technology and construction standards Infrastructure Planning process to continue to include Climate Change Risk Management
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4.4 Asset Programs to meet Demand

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

Acquiring new assets will commit the District Council of Grant to ongoing operations, maintenance and renewal costs, and depreciation expenses for the period that the service provided from the assets is required. These future costs and expenses are identified and considered in developing the long-term financial plan.

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk that needs to be managed.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.⁴

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region.

Risk and opportunities identified to date are shown in Table 4.5.1

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate change risk	Projection	Impact on services	Climate Change Management Plan
Increase in Extreme Weather Events	Increase load on Stormwater Assets	Increased Risk of Flooding and impact on other associated Assets and Infrastructure	Increased Inspection and Review of Renewal/possible Upgrade of Asset during Renewal process to facilitate additional load and reduce risk
	Increased Vegetation Growth and Debris, More vegetative debris in warmer, wetter climates can clog grates and inlets.	Resulting in Blockages and localised surface flooding, especially during storm events	Regular inspection and cleaning. Consideration for baffle systems to be augmented

⁴ IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

	Altered infiltration patterns can compromise the stability of underground infrastructure or cause system underperformance.	Subsidence, pipe misalignment, or infiltration/exfiltration problems.	Increase camera inspections on high risk assets to monitor performance
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Additionally, the way in which we construct new and upgrade existing assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

Table 4.5.2 summarises opportunities to build climate change resilience into new and existing assets.

Table 4.5.2 Building Climate Change Resilience into New and Existing Assets

Asset Description	Climate change risk	Resilience Plan for New Assets	Resilience Plan for Existing Assets
Stormwater Pipes	Rising Sea Levels - Stormwater systems that drain into the sea or estuaries can experience backflow or inundation during high tides or storm surges.	Consideration for non return valves in stormwater to prevent backflow and materials with reduced risk of damage from salt water	Consideration for non return valves in stormwater to prevent backflow and materials with reduced risk of damage from salt water during renewal
Stormwater Network	Increased Rainfall Intensity & Frequency - Existing pipes, culverts, and drains may be undersized for more intense and frequent storm events. More frequent urban flooding, surcharge of drainage systems, and water damage to infrastructure and private property.	Inclusion of all coastal townships in coastal inundation analysis and design for consideration of 1 in 50 year storm events facility. Consideration for Bioswales and infiltration zones for new developments	Inclusion of all coastal townships in coastal inundation analysis and design for consideration of 1 in 50 year storm events facility during renewal process
Pipes (Stormwater Mains & Laterals)	• Increased rainfall intensity leading to surcharge and overflow • Blockages from sediment or debris during storms	• Design to handle future rainfall projections (e.g., 1-in-100 year events) • Use corrosion-resistant, high-capacity materials	• CCTV inspection and condition assessment • Upsize or line undersized/aging pipes • Jet cleaning and sediment removal

	• Structural failure due to ground movement or age	• Incorporate overland flow paths in design • Add smart monitoring systems	• Implement flow diversion during extreme events
Side Entry Pits (SEPs)	• Blockage from increased debris during intense rainfall • Surface flooding due to inadequate capacity • Safety risks from overtopping or structural failure	• Increase inlet grate size and flow capacity • Position SEPs to align with overland flow paths • Install debris traps or self-clearing grates • Design with flood-safe surface gradients	• Retrofit larger or dual inlets in high-risk zones • Install debris cages/screens • Increase inspection frequency before peak storm seasons • Replace damaged or low-capacity pits
Drainage Bores (Infiltration Structures)	• Reduced infiltration due to drought-hardening or sediment clogging • Contamination risk with higher pollutant loads in first flush • Damage or failure due to shifting groundwater levels	• Use pre-filtration zones or sediment traps upstream • Design with overflow bypass in case of bore failure • Site in stable geotechnical zones with high permeability • Model infiltration rates under future climate scenarios	• Conduct infiltration rate tests and performance audits • Retrofit with sediment traps and filters • Clean or re-drill blocked bores • Convert low-performing bores to alternative drainage types (e.g., biofilters)

The impact of climate change on new and existing assets is evolving and new opportunities will be developed in future revisions of this AM Plan.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the District Council of Grant plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) throughout their entire lifecycle, from acquisition or creation to disposal. The goal is to maximise the value of the assets while minimising costs and risks, ensuring they continue to meet performance requirements over time.

From a financial perspective, infrastructure activities tend to be classified as being either Operating or Capital. The lifecycle activities used in the asset management and financial planning and reporting process cover:

- **Capital**
 - **Acquisition** – the activities to provide a higher level of service (e.g., widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
 - **Renewal** – the activities that replace or restore assets to the standard it had originally provided (e.g., road resurfacing and pavement reconstruction, pipeline replacement and building component replacement).
- **Operating**
 - **Operations** - the routine activities that keep services accessible and effective, balancing efficiency with user expectations (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.)
 - **Maintenance** – the preventative and corrective actions to sustain asset functionality and minimise unexpected failures. Maintenance activities enable an asset to provide service for its planned life (e.g., road patching, unsealed road grading, building and structure repairs).
 - **Disposal** – the decommissioning, removing, or repurposing of assets that are no longer cost-effective, safe, or necessary (e.g. shutting down an old water treatment plant, demolishing unsafe buildings, dismantling old bridges, etc.).

A pictorial representation of the asset lifecycle activities is shown below in Figure 5.0.



Figure 5.0: Asset Lifecycle Activities

5.1 Background Data

5.1.1 Physical parameters

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

Table 5.1.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Drainage Bores	23	\$153,500
Stormwater Pits	187	\$374,217
Stormwater Pipes and Culverts	5089 metres	\$925,340
TOTAL		\$1,453,050

Stormwater Assets are spread across the entire District both in Townships and Rurally. This in itself poses a high level of commitment to ensure that all assets are inspected on a regular basis.

The age profile of the assets included in this AM Plan are shown in Figure 5.1.1.

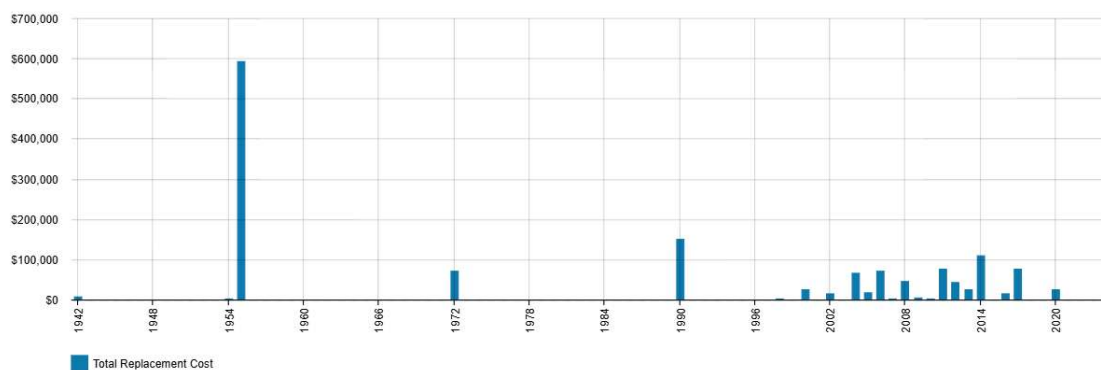


Figure 5.1.1: Asset Age Profile

Amounts are shown in real values (i.e., current values, net of inflation).

The Asset Age profiles show a significant spike in the mid 1950's which represents a best knowledge of the early development of stormwater assets in conjunction with condition rating data acquired. A secondary spike circa 1980 represent a period of significant development in Port MacDonnell and Tarpeena.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
No Service deficiencies have been identified at this time.	

The above service deficiencies were identified from records of faults and emergencies. Records of faults and issues have only indicated maintenance items which are addressed ad-hoc due to high levels of variance until trends develop.

5.1.3 Asset condition

Condition is currently monitored in house by staff during extreme rainfall events and inspection.

Condition is measured using a 1 – 5 grading system⁵ as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

⁵ IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 5.1.3.

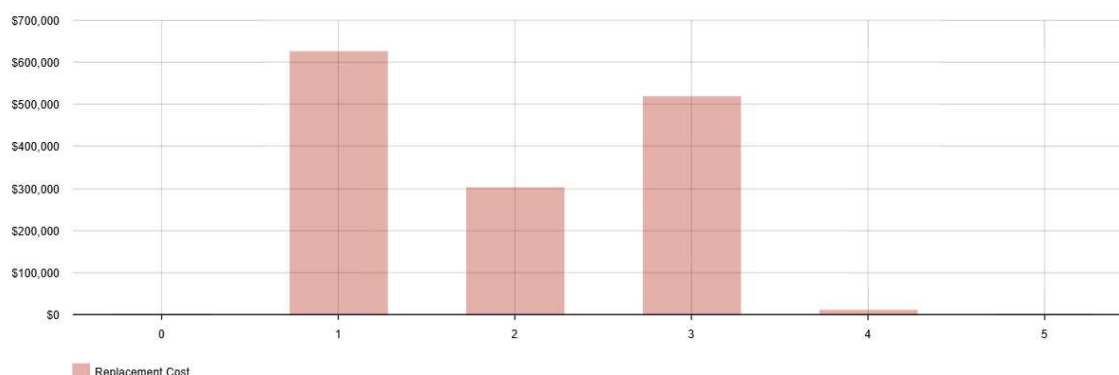


Figure 5.1.3: Asset Condition Profile

Asset Condition Profile is driven by construction age and development cycles within the District Council of Grant area. Due to the extended life cycle of Stormwater Assets in our environment, we will not see major renewal projects in the renewal cycle however in the future, we will see and uplift in renewal active which will need to be stage over multiple years. Some assets will be need to be replace before they hit end of useful life to prevent financial shock and smooth the Asset Age Profile curve.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget \$
2023/2024	\$26,680
2024/2025	\$27,769
2025/2026	\$28,700

Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

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

Asset hierarchy

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

The service hierarchy is shown in Table 5.2.2.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Township	Stormwater assets located within a township and generally consist of pipes, side entry pits and drainage bores.
Rural	Stormwater assets located on rural area and predominantly consists of a culvert under the road.

Summary of forecast operations and maintenance costs

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

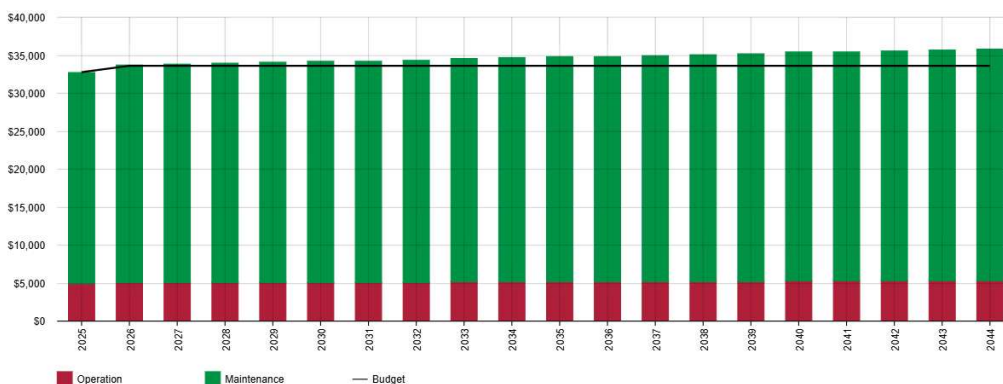


Figure 5.2: Operations and Maintenance Summary

Amounts are shown in real values (i.e., current values, net of inflation).

Given the expected increase in Asset stocks due to development, maintenance and operation will need to be increased accordingly and current prediction modelling indicates it will be approximately a 2.69% per Annum to prevent a Deferred Maintenance scenario.

5.3 Renewal Plan

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

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed on 30 April 2025 by Liquid Engineering.⁶

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Useful life is based on construction materials and methodology, ranging between 45 and 100 years. This is consistent in not conservative with alignment to the IPWEA Practice Note 5. Stormwater Drainage.	

The estimates for renewals in this AM Plan were based on the Register Method.

⁶ Enter Reference to Report documenting Review of Useful Life of Assets

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).⁷

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.⁸

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.3.1.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Strategic Plan Objectives	20%
Regulatory Change (including environmental criteria)	20%
Community Expectation (Current vs Future Level of Service)	15%
Funding Availability	45%
Total	100%

5.3.2 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.3.2. A detailed summary of the forecast renewal costs is shown in Appendix D.

⁷ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

⁸ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

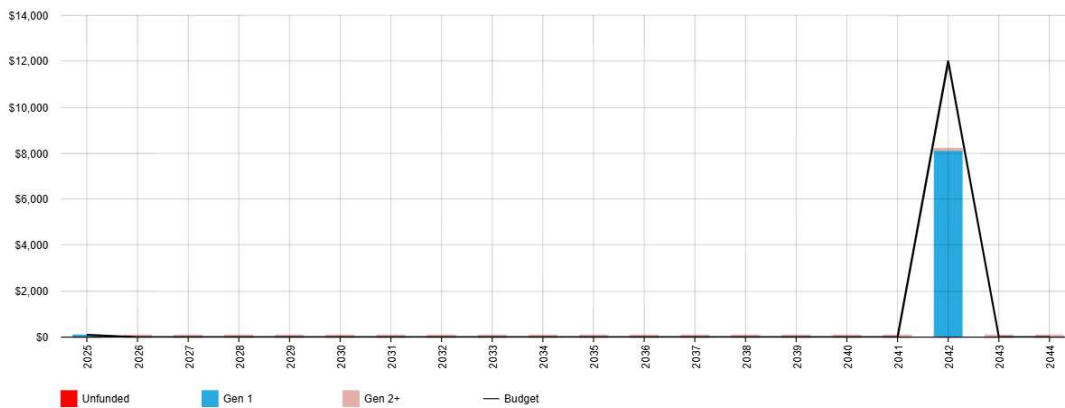


Figure 5.3.2: Forecast Renewal Costs

Amounts are shown in real values (i.e., current values, net of inflation).

The renewal forecast is relatively minor due to the long useful life of Stormwater assets and condition. Going forward in the next 20 to 40 years, Council will see a severe rise in renewal expenditure and strategic infrastructure renewal plans will need to be developed to manage it.

5.4 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its original service level. They may result from growth, demand, social or environmental needs. Assets may also be donated to the District Council of Grant.

5.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1.

Table 5.4.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Legislative Compliance	50%
Service Deficiency	50%
Total	100%

5.4.2 Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised / summarized in Figure 5.4.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix A.

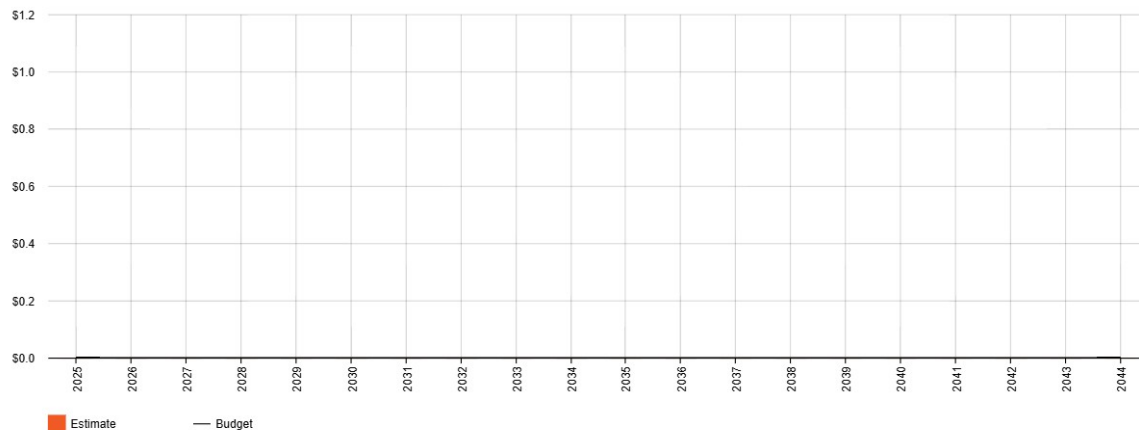


Figure 5.4.1: Acquisition (Constructed) Summary

Amounts are shown in real values (i.e., current values, net of inflation).

When an Entity 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. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 5.4.2.

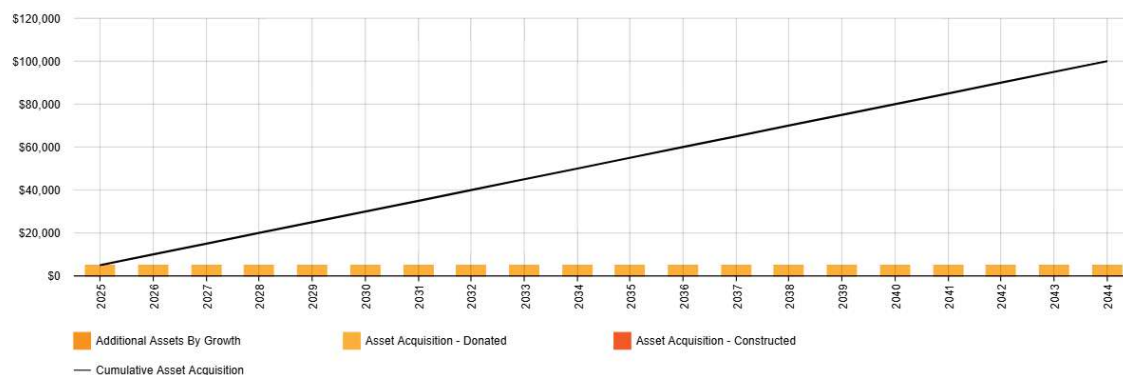


Figure 5.4.2: Acquisition Summary

Amounts are shown in real values (i.e., current values, net of inflation).

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

The plan includes in PC sums for contributed acquisition to reflect the slow increase in stormwater assets contributed by developers and will requiring operation and maintenance in the future. Beyond this, constructed assets will be included in future Asset Management Plans as planning is completed. This is expected to be a minimal impact physically and financially.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.5. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in Table 5.5. Any costs or revenue gained from asset disposals is included in the long-term financial plan.

Table 5.5: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Costs	Operations & Maintenance Annual Savings
No Assets are expected to be disposed of in this planning period				

5.6 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

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

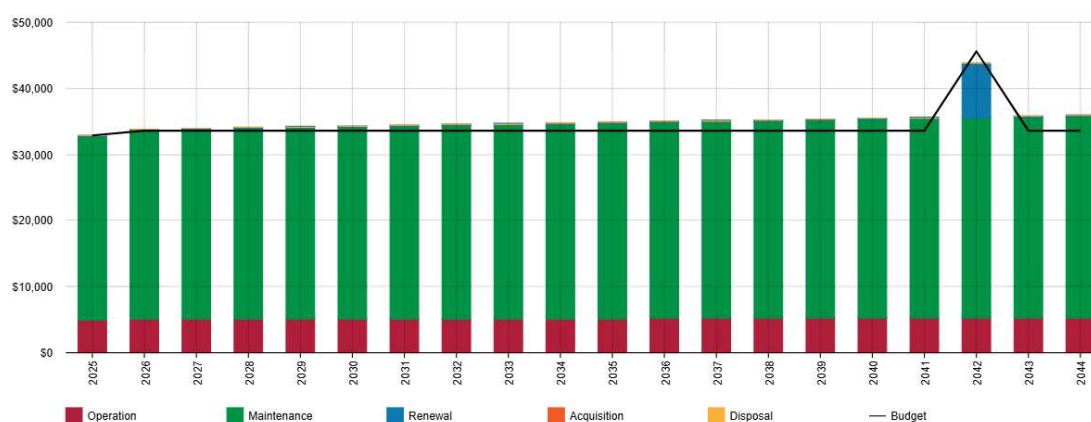


Figure 5.6: Lifecycle Summary

Amounts are shown in real values (i.e., current values, net of inflation).

Current budgeting is currently enough to cover the forecast cost in the short term however as additional assets are brought online by developers, Council will need to slowly increase funding to meet the requirements of Operating and Maintaining the additional assets.

6.0 RISK MANAGEMENT PLANNING

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

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'⁹.

An assessment of risks¹⁰ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Sea Parade Stormwater Pipes	Failure / Collapse	May result in making high traffic roads untrafficable and severely impact safety and the local economy
Rural Stormwater Culverts	Failure / Collapse due to increase heavy traffic	May result in roads becoming temporarily untrafficable, unsafe and impact surrounding properties owners both socially and financially

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

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

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

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

⁹ ISO 31000:2009, p 2

¹⁰ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

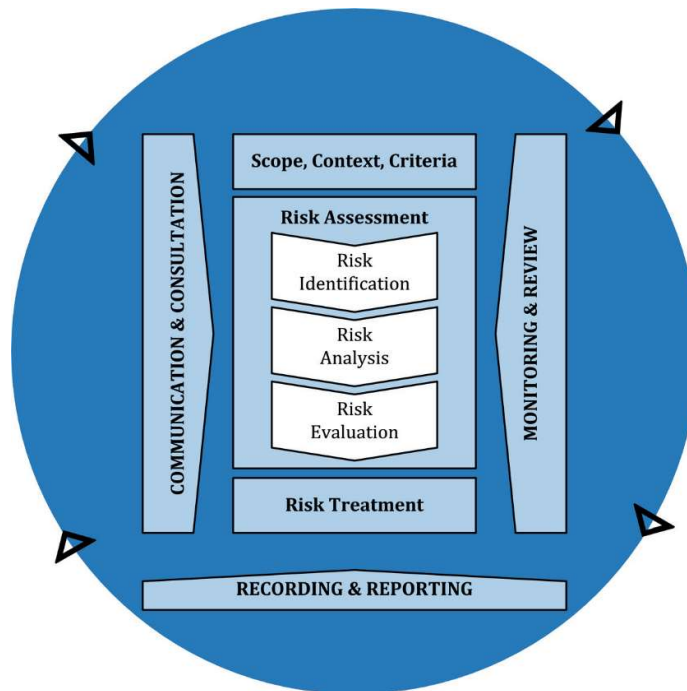


Fig 6.2 Risk Management Process – Abridged

Source: ISO 31000:2018, Figure 1, p9

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

An assessment of risks¹¹ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

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

¹¹ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Stormwater Assets susceptible to ocean storm surge intrusion	Salt water intrusion causing accelerated concrete decay and potential collapse	H	Regular Inspection and programmed flushing and replacement	L	\$5000 per Annum
Structural Condition of Culverts	A small percentage of new culverts can fail	H	Ensure new Culverts are quality checked before installation to ensure no chance of structural failure. Additionally, include quality controls which are in place in relation to installation.	L	Within existing budget
Lack of knowledge of the condition of assets resulting in poor decision-making.	Most stormwater assets are underground assets. Condition of the assets are not easily assessed	H	Improve processes for capturing condition data. Analyse data and prioritise works program based on risk.	L	Unknown
Road Assets	Failure of pavement due to underground culvert collapse	H	Introduction of CCTV Program to identify areas of risk and aid in development of future works programs	L	Unknown
Stormwater System	Property flooding	H	Review and update Development Plan. Upgrade underground system based on risk priority.	L	Unknown

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

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Our current measure of resilience is shown in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to ensure service delivery resilience.

Table 6.3: Resilience Assessment

Threat / Hazard	Assessment Method	Current Resilience Approach
Climate Change-Induced Storms	- Climate modelling (e.g., RCP scenarios) - Analysis of changing precipitation patterns	- Implementation of green infrastructure (e.g., bioswales, permeable pavements) - Adaptive design standards for new developments
Aging Infrastructure Failure	- Asset condition assessments - Predictive maintenance analytics	- Regular asset inspections and maintenance schedules - Prioritization of critical infrastructure upgrades
Lack of Data and Planning	- GIS mapping of stormwater assets - Development of asset management plans	- Comprehensive asset inventory and condition assessment - Integration of stormwater data into urban planning processes

6.4 Service and Risk Trade-Offs

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

6.4.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Inspect all culverts and stormwater drains physically on an annual basis
- Upgrade existing assets to meet new weather trends as a result of climate change
- Meet the aspired levels of service to achieve community aspirations

6.4.2 Service trade-off

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

- Risk of rise in flood Intrusion events
- Reduced levels of service for the building portfolio

- Reduced customer satisfaction levels associated with the management of our existing assets
- Intergenerational inequity (burdening future generations)

6.4.3 Risk trade-off

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

- Increased public safety risks associated with assets deteriorating beyond recommended intervention levels
- Increased reputational risks associated with service provisions not aligning with community expectations
- Intergenerational inequity (burdening future generations)

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 FINANCIAL SUMMARY

This section contains the financial and valuation forecasts resulting from the information presented in the previous sections of this plan. Forecasts will be improved as the discussion on sustainable levels of service, risk and cost matures in line with the financial strategy.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

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

- Asset Renewal Funding Ratio (planned renewal budget for the next 10 years / forecast renewal outlays for the next 10 years identified as warranted in the AM Plan), and
- Lifecycle Funding Ratio (planned lifecycle budget for the next 10 years / forecast lifecycle outlays for the next 10 years identified as warranted in the AM Plan).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹² 100.0%

The Asset Renewal Funding Ratio illustrates that over the next 10 years we expect to have 100.0% of the funds required for the optimal renewal of assets.

The forecast renewal works along with the planned renewal budget, and the cumulative shortfall where one exists, is illustrated in Appendix D.

Lifecycle Funding Ratio – 10-year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide the levels of service to the community over a 10 year period. This provides input into 10 year long-term financial plan (LTFP) aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the planned budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$34,136 average per year.

The 10-year LTFP is \$33,529 on average per year [giving a 10 year funding shortfall of \$-608 per year. This indicates that 98.22% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude depreciation and the acquisition of new and upgrade of existing assets.

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

7.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

¹² AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan and/or financial projections in the LTFP.

We will manage any 'gap' by communicating the service performance, cost, and risk implications in consultation with the community and key stakeholders.

Forecast costs are shown in 2024/2025 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2025	\$0	\$5000	\$27,769	\$100	\$0
2026	\$0	\$5017	\$28,700	\$100	\$0
2027	\$0	\$5034	\$28,798	\$100	\$0
2028	\$0	\$5051	\$28,896	\$100	\$0
2029	\$0	\$5068	\$28,994	\$100	\$0
2030	\$0	\$5085	\$29,092	\$100	\$0
2031	\$0	\$5102	\$29,190	\$100	\$0
2032	\$0	\$5119	\$29,288	\$100	\$0
2033	\$0	\$5136	\$29,386	\$100	\$0
2034	\$0	\$5153	\$29,484	\$100	\$0
2035	\$0	\$5170	\$29,582	\$100	\$0
2036	\$0	\$5187	\$29,680	\$100	\$0
2037	\$0	\$5204	\$29,778	\$100	\$0
2038	\$0	\$5221	\$29,876	\$100	\$0
2039	\$0	\$5238	\$29,974	\$100	\$0
2040	\$0	\$5255	\$30,072	\$100	\$0
2041	\$0	\$5272	\$30,170	\$100	\$0
2042	\$0	\$5289	\$30,268	\$8240	\$0
2043	\$0	\$5306	\$30,366	\$100	\$0
2044	\$0	\$5323	\$30,464	\$100	\$0

7.2 Valuation Forecasts

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at fair value per Liquid Engineering's Revaluation:

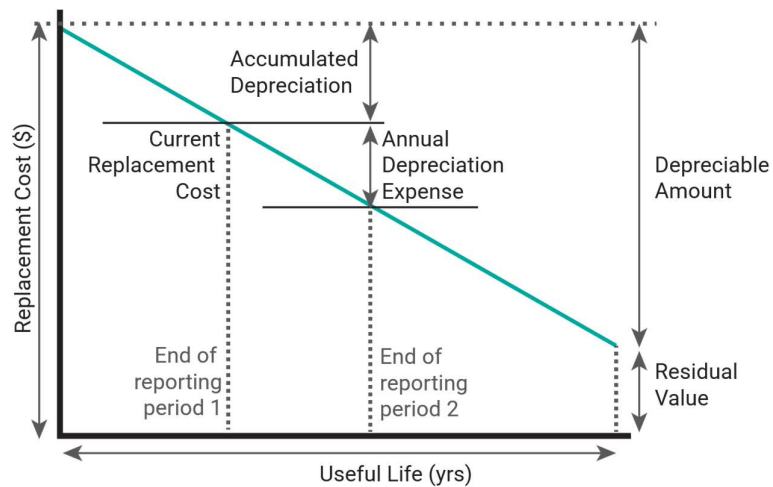


Figure 7.2.1: Valuation Terminology

Replacement Cost (Gross)	\$1,453,050.00
Depreciable Amount	\$1,453,050.00
Current Replacement Cost ¹³	\$834,461.0
Annual Depreciation Expense	\$15,898.00

Asset values are forecast to increase as additional assets are added to service.

Acquiring new assets will add to existing operations, maintenance, future renewal, and depreciation expenses.

Stormwater Assets are tremendously long lived in the South East environment with only anecdotal evidence surrounding potential useful. Behaviour patterns have compared to other sites around Australia to estimate useful against our existing data. Beyond this, as District Council of Grant grows, contributed assets from developers will be added to our asset base and require additions to Council's Operation, Maintenance and Depreciation budget and drive up the Asset Renewal forecast.

¹³ Also reported as Written Down Value, Carrying or Net Book Value.

8.0 ASSUMPTIONS AND IMPROVEMENT PLANNING

8.1 Data and Information Sources

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data sourced from Liquid Consulting's Revaluation and Condition Rating Data completed in early 2025.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data sourced from Assetic MyData (Council's Asset Management Software collected by staff over the last 15 years).

8.2 Key Assumptions

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

Key assumptions made in this AM Plan are:

- Upgraded asset forecasts are in "todays" dollars, CPI is added in the maintenance and renewal forecasts
- Staffing needs are resourced adequately
- No significant change in legislation
- On going monitoring and inspection is done

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge. When doing so, the forecast remaining useful life in the asset register should be adjusted where necessary.

The Asset Register was used to forecast the renewal lifecycle costs for this AM Plan.

8.3 Forecast Reliability and Confidence

The forecast demands, costs, planned budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset management and financial planning and reporting, it is critical that the information is reliable and up to date. Data confidence is classified on an A to E level scale in accordance with the guidance provided in the International Infrastructure Management Manual.¹⁴

¹⁴ IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Table 8.3.1: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.3.2.

Table 8.3.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	B	Drivers were determined during workshops held with key staff during development of previous AM Plan.
Growth projections	C	Projections based on ABS Data.
Acquisition forecast	C	Projections based on Historic Data
Operation forecast	B	Expenditure has been taken directly from Councils financial system.
Maintenance forecast	B	Expenditure has been taken directly from Councils financial system.
Renewal forecast - Asset values	A	Supplied by external Liquid Consulting and signed off by Audit Committee
- Asset useful lives	A	Developed over last decade by DCG Staff, audited and signed off by multiple Engineering firms and signed off by prior Audit Committee
- Condition modelling	A	Supplied by external Liquid Consulting and signed off by Audit Committee
Disposal forecast	B	No current forecast disposals, however analysis is currently under way and will include possible future disposals

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

8.4 Improvement Plan

It is important that we recognise gaps in the planning process that require improvement to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.4.

Table 8.4: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Develop risk management plan.	MOD/DWI	Within Existing Budget	Framework Completed
2	Develop condition assessment manual for condition.	DWI/AMC2	Within Existing Budget	Completed
3	Investigate options to allow for differentiation of maintenance expenditure as planned and un-planned.	DWI/AMC2	Within Existing Budget	Completed
4	Implement inspection program and review maintenance practices to	AMC2	Within Existing Budget	Ongoing

	ensure alignment with service level requirements.			
5	Redevelopment of Asset Management Plan to align with ISO 550XX:2024	AO	Within Existing Budget	Ongoing
6				
7				
8				
9				
10				

8.5 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within 2 years of each District Council of Grant election.

8.6 Performance Measures

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

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1 to 5-year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 110%).

9.0 REFERENCES

- IPWEA, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/iimm>
- IPWEA, 'NAMS+ - A Toolkit for Asset Management Planning', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/namsplus>
- IPWEA, 2024 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/iifmm>
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/resourcesnew/bookshop/pn12-1>
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6>
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8>
- ISO, 2024, ISO 55000:2024 Asset Management – Vocabulary, overview, and principles
- ISO, 2018, ISO 31000:2018 Risk management – Guidelines
- 'Strategic Plan 2024 – 2034',
- 'Annual Plan and Budget'.

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Summary

Table A1 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2025	\$0	\$5,000	\$0
2026	\$0	\$5,000	\$0
2027	\$0	\$5,000	\$0
2028	\$0	\$5,000	\$0
2029	\$0	\$5,000	\$0
2030	\$0	\$5,000	\$0
2031	\$0	\$5,000	\$0
2032	\$0	\$5,000	\$0
2033	\$0	\$5,000	\$0
2034	\$0	\$5,000	\$0
2035	\$0	\$5,000	\$0
2036	\$0	\$5,000	\$0
2037	\$0	\$5,000	\$0
2038	\$0	\$5,000	\$0
2039	\$0	\$5,000	\$0
2040	\$0	\$5,000	\$0
2041	\$0	\$5,000	\$0
2042	\$0	\$5,000	\$0
2043	\$0	\$5,000	\$0
2044	\$0	\$5,000	\$0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operation Forecast is based on the assumption of the continuation of funding as per the existing budget. Operation Figure made up of Asset Management Budget and staff overhead for planning.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2025	\$5,000	\$17	\$5,000
2026	\$5,000	\$17	\$5,017
2027	\$5,000	\$17	\$5,034
2028	\$5,000	\$17	\$5,051
2029	\$5,000	\$17	\$5,068
2030	\$5,000	\$17	\$5,085
2031	\$5,000	\$17	\$5,102
2032	\$5,000	\$17	\$5,119
2033	\$5,000	\$17	\$5,136
2034	\$5,000	\$17	\$5,153
2035	\$5,000	\$17	\$5,170
2036	\$5,000	\$17	\$5,187
2037	\$5,000	\$17	\$5,204
2038	\$5,000	\$17	\$5,221
2039	\$5,000	\$17	\$5,238
2040	\$5,000	\$17	\$5,255
2041	\$5,000	\$17	\$5,272
2042	\$5,000	\$17	\$5,289
2043	\$5,000	\$17	\$5,306
2044	\$5,000	\$17	\$5,323

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Calculations are based on current budget figures, planned capital renewal projects and existing costs to maintain the asset base calculated out to maintain the forecast new assets.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2025	\$27,769	\$98	\$27,769
2026	\$28,602	\$98	\$28,700
2027	\$28,602	\$98	\$28,798
2028	\$28,602	\$98	\$28,896
2029	\$28,602	\$98	\$28,994
2030	\$28,602	\$98	\$29,092
2031	\$28,602	\$98	\$29,190
2032	\$28,602	\$98	\$29,288
2033	\$28,602	\$98	\$29,386
2034	\$28,602	\$98	\$29,484
2035	\$28,602	\$98	\$29,582
2036	\$28,602	\$98	\$29,680
2037	\$28,602	\$98	\$29,778
2038	\$28,602	\$98	\$29,876
2039	\$28,602	\$98	\$29,974
2040	\$28,602	\$98	\$30,072
2041	\$28,602	\$98	\$30,170
2042	\$28,602	\$98	\$30,268
2043	\$28,602	\$98	\$30,366
2044	\$28,602	\$98	\$30,464

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Forecast for renewals are based on IPWEA Practice Note 5 Stormwater, historic data and compare against Stormwater registers of organisations with similar assets and environments.

D.2 – Renewal Forecast Summary

Table D2 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2025	\$100	\$100
2026	\$100	\$100
2027	\$100	\$100
2028	\$100	\$100
2029	\$100	\$100
2030	\$100	\$100
2031	\$100	\$100
2032	\$100	\$100
2033	\$100	\$100
2034	\$100	\$100
2035	\$100	\$100
2036	\$100	\$100
2037	\$100	\$100
2038	\$100	\$100
2039	\$100	\$100
2040	\$100	\$100
2041	\$100	\$100
2042	\$8,240	\$12,000
2043	\$100	\$100
2044	\$100	\$100

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2025	0	\$5,000	\$27,769	\$100	\$0	\$32,869
2026	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2027	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2028	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2029	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2030	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2031	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2032	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2033	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2034	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2035	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2036	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2037	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2038	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2039	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2040	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2041	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2042	0	\$5,000	\$28,602	\$12,000	\$0	\$45,602
2043	0	\$5,000	\$28,602	\$100	\$0	\$33,702
2044	0	\$5,000	\$28,602	\$100	\$0	\$33,702