Urban Stormwater Asset Management Plan 2024

Adopted by Council
24 June 2024
Minute 120/24
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GLOSSARY

Asset condition assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.
Asset consumption ratio	The current value of Council's depreciable assets relative to their current replacement cost. $\frac{\text{Depreciated replacement cost of assets}}{\text{Current replacement cost of assets}}$
Asset sustainability ratio	The approximation of the extent to which the infrastructure assets managed by Council are being replaced as they reach the end of their useful lives. $\frac{\text{The capital expenditure on the renewal of assets}}{\text{Depreciation expense}}$
Asset renewal funding ratio	The ratio of asset renewal and replacement funding accommodated over a 10 year period in a long term financial plan (LTFP) relative to the projected asset capital renewal and replacement expenditure identified over the same period in the relevant asset management plan (AMP).
Current replacement cost	The current cost of replacing an asset with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as new or similar asset expressed in current dollar values.
Depreciable amount	The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116)
Depreciated replacement cost	The current replacement cost of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.
Depreciation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.
Fair Value	The amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction. In the absence of market based prices, fair value is most often determined by the depreciated replacement cost of the asset.
Life cycle cost	The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The LCC does not indicate the funds required to provide the service in a particular year.

Life cycle expenditure	The life cycle expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. LCE may be compared to LCC to give an initial indicator of life cycle sustainability.
Planned maintenance	Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspections, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
Renewal gap	The difference between the required spend as determined by the asset register/assessed residual lives and the forecast spend as determined by Council.
Useful life	Either: (a) the period over which an asset is expected to be available for use by an entity; or (b) the number of production or similar units expected to be obtained from the asset by the entity. (AASB 116). It is the estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council. It is the same as the economic life.

1. EXECUTIVE SUMMARY

Council provides and manages an urban stormwater drainage system to collect and convey stormwater to waterways at Branxholm, Bridport, Derby, Gladstone, Herrick, Legerwood, Musselroe Bay, Pioneer, Ringarooma, Scottsdale, Winnaleah and Tomahawk. The system has a current "as new" replacement value of $27.2 million.

Plans for the Future

Council plans to operate and maintain the urban stormwater network to achieve the strategic objective of ensuring that the network is maintained at a safe and functional standard as set out in this asset management plan (AMP).

Cost

Council's planned life cycle expenditure over the 10 year period of this AMP (in current year dollars) is $116,145 per annum, comprising $33,000 annual capital renewal expenditure and $83,145 annual average operations and maintenance expenditure. In addition to this expenditure, capital upgrades and additions are forecast to be $190,000 per annum (in current year dollars) over the 10 year life of this plan.

The Next Steps

The actions resulting from this AMP are:

1. Continuous improvement of BizeAsset/GIS stormwater field asset data.
2. Maintaining and improving the linkages between the financial and BizeAsset/GIS asset registers.
3. Monitoring and addressing network constraints and performance deficiencies as identified in this AMP and the Urban Stormwater System Management Plan (SSMP).
4. Investigate the engineering, financial and environmental feasibility for integrating stormwater outfalls and installing GPT devices across the Scottsdale and Bridport networks.

2. INTRODUCTION

2.1 Background

This AMP has been prepared to demonstrate Councils responsive management of stormwater assets, compliance with regulatory requirements, and to communicate funding requirements to meet determined levels of service.

This AMP covers urban stormwater assets.

Council's stormwater assets have recently been revalued in accordance with financial reporting requirements. The outputs of the revaluation project will be incorporated into the 2023-24 Financial Reports with the revaluation date being 30 June 2024. The comprehensive revaluation has resulted in the "as new" current replacement value of assets to increase by 44% from $18.8 million at 30 June 2023 to $27.2 million at 30 June 2024. The corresponding increase in depreciation is 36% from $230,625 to $314,693 per annum.

The asset values presented in this AMP are sourced from the comprehensive revaluation final report.

Table 2.1(a) Stormwater Assets by Asset Category

Asset Category	As New Replacement Value	Written Down Value	Consumption Ratio %	Length/Items
Storm water lines (Gravity mains, open drains, channels, culverts, french drains)	$20,631,218	$13,890,000	67.3 %	73.5 KM's
Storm water points (pits, manholes etc.)	$6,558,683	$4,298,739	65.5%	2,133 items
Total	**$27,189,901**	**$18,188,739**	**66.9%**	

Table 2.1(c) Stormwater Assets by Town

Town	As New Replacement Value	Written Down Value	Town % of Total As Replacement Value
Branxholm	$920,973	$649,497	3.4%
Bridport	$11,699,537	$7,968,690	43%
Derby	$1,351,095	$967,166	5%
Gladstone	$523,915	$344,714	1.9%
Herrick	$45,827	$21,032	0.2%
Legerwood	$514,102	417,850	1.9%
Musselroe Bay	$104,135	$72,799	0.4%
Pioneer	$395,044	$259,682	1.5%
Ringarooma	$369,534	$208,389	1.4%
Scottsdale	$10,753,892	$6,958,857	39.6%
Winnaleah	$443,437	$267,473	1.6%
Tomahawk	$795	$745	0%
To be classified	$67,615	$51,845	0.2%
Total	**$27,189,901**	**$18,188,739**	**100%**

Table 2.1 (c) Stormwater Assets Useful Lives

Asset Category	Useful Life
Stormwater pipes and lines - Reinforced Concrete (RCP)	100
Stormwater pipes and lines - PVC	80
Stormwater points (pits, manholes etc.)	80

2.2 Goals and Objectives of Asset Management

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future customers. Council's goals and objectives and how these are addressed in the AMP are:

Goals	Objective	How Goal and Objectives are addressed in AMP
Provide best practice management, systems and processes that maximise council's effectiveness in the delivery of services.	Manage finances and assets in a transparent way that allows council to maximise the potential of its resources and assures efficient and consistent delivery of services in a sustainable manner and in compliance with legislative requirements.	Allocate resources in annual budgets to meet asset acquisition, construction, and maintenance and the provision of community services through planning and sustainable budgetary commitments. Review and update the AMP every 4 years.
Encourage economic development and population growth whilst preserving the environment.	Develop and maintain stormwater systems in a way that is environmentally sustainable, safe and of minimal community impact.	Implement sound asset management systems and processes. Funding allocated in Long Term Financial Plan (LTFP).
Ensure a measured and predicable allocation of resources to meet asset acquisition, construction and maintenance through proactive planning and sustainable budgetary commitments.	Investigate and plan for the future development of community facilities as the need arises, taking into account the priorities identified by Councillors and the community.	Establish 10 year plans and realistic annual budgets that adequately meet the resource demands of future urban stormwater requirements.

3. LEVELS OF SERVICE

3.1 Community Research and Expectations

At present the public can provide feedback and report complaints via the Council's Customer Request Management (CRM) system. This information is relayed to the Works and Infrastructure Department where it is addressed. Elected Councillors also have input into the annual budget development in which they can raise community concerns regarding the management of any aspect of Council's asset management practices.

3.1 Legislative Requirements

Council must meet many legislative requirements including Australian and State legislation and State regulations. Key legislation, policies and regulations concerning urban stormwater include:

- Local Government Act 1993 & Amendments;
- Local Government (Contents of Plans and Strategies) Orders 2014;
- Workplace Health & Safety Act 20212;
- Urban Drainage Act 2013;
- Local Government By-Laws;
- Local Government (Building and Miscellaneous Provisions) Act 1993;
- Environmental Management & Pollution Control Act 1994;
- State Policy on Water Quality Management (1997);
- State Stormwater Strategy (2010); and
- Plumbing Regulations 2014 and Building Regulations 2014.

A requirement of the Urban Drainage Act 2013 is that all Tasmanian Council's develop Stormwater System Management Plans (SSMP) for the urban areas within their municipalities. The Act states that a SSMP must specify:

a) plans for the management of any assets used for the delivery of a stormwater service;

b) the level of risk from flooding for each urban stormwater catchment in the public stormwater system; and

c) any other matters prescribed in the regulations or that the council considers appropriate.

Council has prepared a SSMP which addresses the above statutory requirements. The SSMP will be presented to a Council meeting in the near future for adoption.

3.2 Current Levels of Service

Council has established the following objectives:

Quality

Council is committed to maintaining urban stormwater assets in a reasonably usable condition and fit for use. Defects found or reported that negatively affect function or safety will be repaired on a priority and risk managed basis.

Function

It is the intent of Council to ensure that its urban stormwater network is maintained in partnership with other levels of government and stakeholders to meet the drainage, flood mitigation and environmental and storm water quality needs of the Dorset community. The key functional objectives are system safety, flood mitigation and sustainability. An adequate level of ongoing funding is required to sustain assets and to ensure that appropriate management practices are in place to effectively and efficiently manage works and expend available funds.

Safety

Council will maintain its urban stormwater assets at a safe operating condition. A risk based approach to managing and repairing defects exists.

3.4 Desired Levels of Service

Council will ensure it manages the stormwater network in a way that accommodates increased flows from future urban development while working to improve environmental outcomes.

Council complies with relevant legislation, Australian Standards and Codes of Practice in managing the Dorset urban stormwater systems.

4. FUTURE DEMAND

4.1 Demand Forecast

Table 4.1 Demand Factors, Projections and Impact on Services

Demand Factor	Present Position	Projection	Impact on Services
Population	6,829 (2021 ABS Census) 3.2% growth since 2016 Census or 0.64% per year.	Long term decline (Dept of Treasury & Finance, 2022 population forecasts)	Reducing demand
Tourism & Holiday Visitations	Growth (Tourism Snapshot as at 30 June 2022 Derby/Branxholm short stay nights growth 25% & Bridport growth 9%	Growth, particularly Bridport, Derby and Branxholm	Increasing demand
Construction of new Dwellings/Buildings	Both infill and greenfields development	Ongoing infill and greenfields development	Increasing demand
Higher density developments	Large allotments	Smaller allotments	Increased impervious areas leading to increased loadings for new and existing storm water drainage infrastructure
Environmental awareness/legislative requirements	Council meeting current expectations and requirements	More stringent legislative requirements and higher levels of community expectations	Further use of gross pollutant traps to improve quality of run off water. Council to consider Urban Sensitive Stormwater designs for new projects in sensitive areas.
Climate change	Increase in high intensity rainfall events	Ongoing occurance of high intensity rainfall events (CSIRO/BOM State of the Climate 2022)	Increasing peak stormwater flows & demands on network

4.2 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets, constructing new assets and demand management.

4.3 New Assets from Growth

Towns such as Bridport, Derby, and Branxholm are experiencing rapid growth in response to increased popularity with local, interstate and overseas visitors. In response Council forecasts that stormwater systems in these towns will need to be upgraded and extended. Council is also investigating land development in the town of Scottsdale which, if proceeds, may require investment in stormwater assets. Constructing these new assets will commit council to fund ongoing operations and maintenance costs for the useful life of these assets. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background

The assets covered by this AMP are shown below:

Asset Category	As New Replacement Value
Stormwater lines (Gravity mains, open drains, channels, culverts, french drains)	$20,631,218
Stormwater points (pits)	$6,558,683
Total	**$27,189,901**

Council maintains an up-to-date asset register of urban stormwater components. Stormwater assets have been constructed to different standards over the past 50 years. Components are manufactured from steel, concrete, PVC and HDPVE plastics; and generally have a useful operational life of 80-100 years. The age profile of Council's stormwater assets are shown in Figure 5.1 below.

82% of urban stormwater assets by current replacement value are located at Bridport and Scottsdale. Stormwater systems in these towns require a degree of augmentation over time in order to effectively transport storm water volumes generated by 1, 2, 5 and 10 year storm events as a number of design faults exist in relation to undersized storm water pipes and associated problems often experienced with pit surging. Localised flooding has historically occurred, due to undersized infrastructure. Council remains proactive in addressing these issues, with capital projects both completed and planned in the future to correct issues based on risk analysis and priority need.

Council owned stormwater outlets discharge stormwater directly into oceans, creeks and rivers. In 2012, Council installed the first Gross Pollutant Trap (GPT) on the Arthur Street stormwater system at Scottsdale, to improve the quality of stormwater entering the environment. Council continues to explore opportunities for improved outfall quality through the instillation of primary and secondary treatment infrastructure.

Renewal, new and upgraded infrastructure is designed and installed to current standards.

Figure 5.1: Stormwater Asset Age Profile

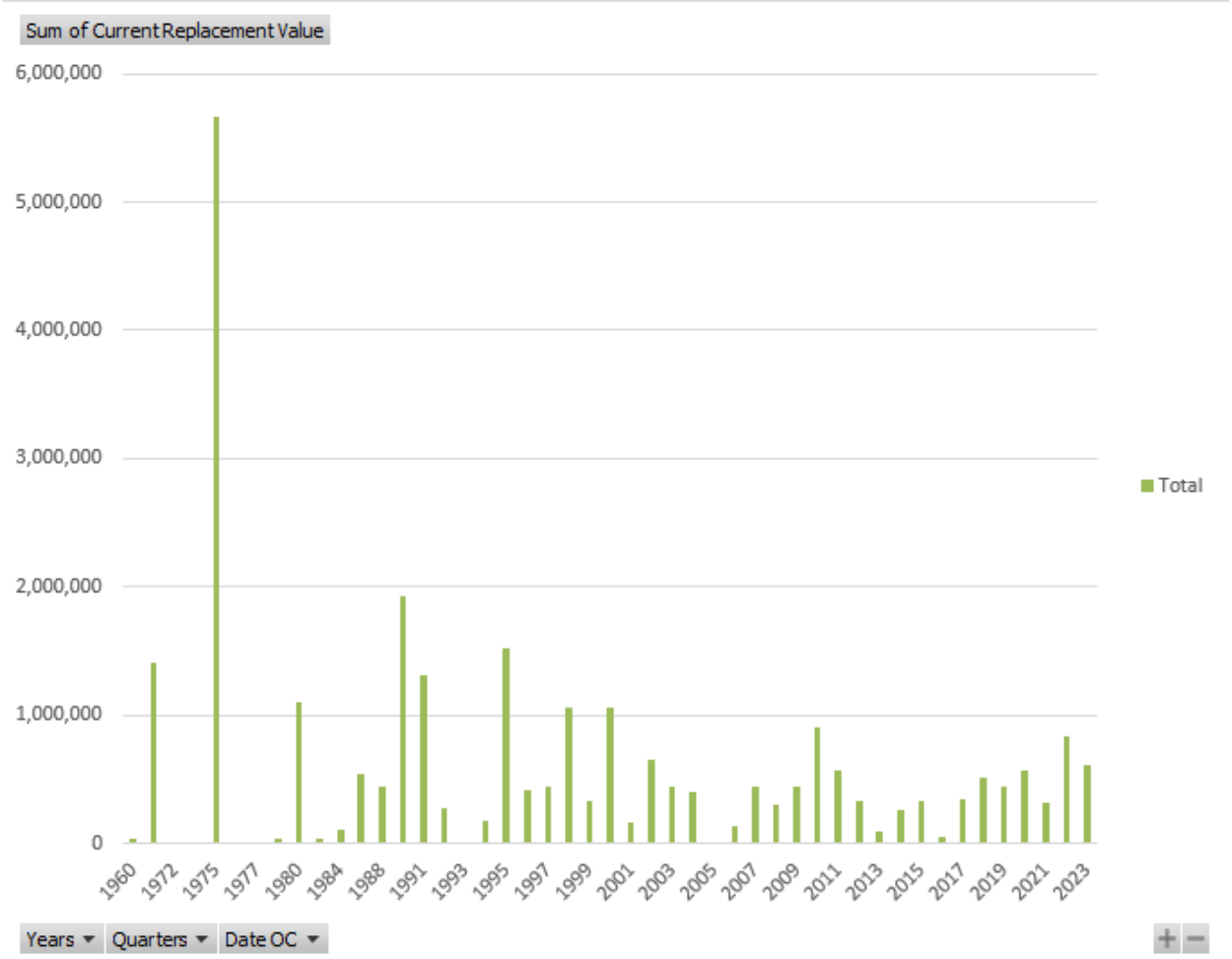


Figure 5.1 shows that around $7.1 million of assets were installed during or prior to 1975. This equates to 26 % of the total stormwater asset base.

5.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in table 5.2

Table 5.2: Known Service Performance Deficiencies

Location	Service Delivery
Bridport	The Bridport stormwater system requires a level of augmentation in order to effectively transport stormwater volumes from 1, 2, 5 and 10 year storm events. A hydraulic modelling assessment by Hunter Water in July 2006 has shown that 152 pits may be subject to surcharging, with 144 under capacity stormwater pipes. Stormwater outflows servicing the business precinct are not fitted with gross pollutant traps to capture gross pollutants, sediment and oil & grease before discharge into Trent Water. There are seventeen stormwater outflows at Bridport, discharging into Anderson Bay, Trent Water and the Brid River. Council has identified the need to review the number and location of existing outfalls and give consideration to integrating outflows and installing GPT devices where a cost effective and environment benefit exists. Appendix C of the Dorset Council Urban SSMP outlines an action plan for addressing known performance deficiencies in Bridport.
Scottsdale	The Scottsdale stormwater system requires a level of augmentation in order to effectively transport stormwater volumes from 1, 2, 5 and 10 year storm events. A hydraulic modelling assessment by Hunter Water in April 2008 has shown that 271 pits may be subject to surcharging, with 264 under capacity stormwater pipes. Central business district upgrades required to increase stormwater carrying capacity. Give consideration to installing GPT devices where a cost effective and environment benefit exists. Installation of a GPT Arthur Street has already occurred. Investigate options for further installations at William Street, Union Street and Bridport Main Road at the Lister's Lane intersection. Appendix C of the Dorset Council Urban SSMP outlines an action plan for addressing known performance deficiencies in Scottsdale.
Derby	Continued urban infill development within the township often exceeds the capacity of the existing networks. Council will continue to identify network deficiencies and undertake upgrades where cost effective opportunities exist.

Branxholm	Continued urban infill development within the township often exceeds the capacity of the existing networks. Council will continue to identify network deficiencies and undertake upgrades where cost effective opportunities exist.
Municipality	There are a range of minor system upgrades and extensions required in the smaller towns across the municipality. A number of minor stormwater pits and pipes require renewal or upgrade.

The above service deficiencies have been identified:

- By informal assessment of the capacity and condition of the existing urban stormwater system;
- Forecasting of development demand;
- Engineering reviews of the stormwater network where the previous history of high rainfall has led to localised flooding events;
- Hunter Water Australia P/L Preliminary Assessment of Trunk System Capacities Bridport, July 2006 and Scottsdale April 2008; and
- Hydrodynamica 2022 Stormwater Management Report – Westwood St Catchment, Bridport.

5.3 Asset Condition

Renewal of assets are undertaken when asset failure occurs, there is a history of asset failures or through feedback received for a particular area of the network. The Works and Infrastructure Department maintains a register of system failures and this guides asset renewal planning.

Council utilises the following condition rating system based on the Institute of Public Works Engineering Australasia (IPWEA), International Infrastructure Management Manual (IIMM) guidelines.

Condition Rating	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.

As stormwater assets approach the end of their useful life their condition rating will move from 1 and 2 to 3 and 4. Council does not currently carry out visual assessments to verify stormwater asset condition. Based on current performance Council officers rate the vast majority of assets at level 1 or 2.

5.4 Financial Sustainability Ratios

Current Replacement Cost	$27,189,901
Depreciated Replacement Cost	$18,188,739
Annual Depreciation Expense	$314,693

Three common ratios used to measure short term and long term financial sustainability of local councils are detailed below:

Asset consumption ratio

This ratio seeks to highlight the aged condition of the physical assets. This value shows the current value of Council's stormwater assets relative to their "as new value" in current prices. The asset consumption ratio for Council's stormwater assets is 66.9%. This is above the Tasmanian Audit Office (TAO) benchmark of 60%.

Asset sustainability ratio

This ratio represents the extent to which Council is maintaining operating capacity through the renewal of its existing assets. It is the ratio of planned capital renewal expenditure relative to depreciation over the same period. Council's asset sustainability ratio for storm water is 10.5% (Planned average renewal CAPEX spend per LTFP of $33,000 divided by annual projected depreciation of $314,693). The benchmark prescribed by the Tasmanian Audit Office is 100%. The low ratio is reflective of the age and condition profile of assets resulting in minimal foreseen renewal works over the 10 year timeframe covered in this AMP.

Asset renewal funding ratio

This is a ratio of planned capital expenditure accommodated over a 10 year period in the LTFP relative to the projected capital expenditure identified in the AMP. Total planned CAPEX renewal expenditure over the 10 year life of the AMP is $330,000. Projected total capital renewal expenditure is $330,000 of the same period. The asset renewal funding ratio is therefore 100%. The TAO benchmark is between 90% - 100%.

5.5 Risk Management Plan

An assessment of risks associated with the current asset condition has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Very High:	Critical risks, requiring immediate corrective action;
High/Medium:	Requiring prioritised corrective action; and
Low:	Requiring regular monitoring

Risks identified in the infrastructure risk management plan are summarised below.

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Inlet Pits	Blocked with debris	H	Proactive maintenance/cleaning program
SW Pipes & Pits	Blocked pipes with roots & damage	H	Condition monitoring/inspection program & remove blockages and affect pipe repairs
Gross Pollutant Traps (GPTs)	Blockage – gross pollutants, sediments, oil and grease etc	H	Identify, the location and cleaning frequencies of all GPTs as per the manufactures instructions
Stormwater system	Existing infrastructure undersized New infrastructure undersized	H	Develop and implement plan to progressively upgrade the system based on risk analysis and assigned priority. Adopt good engineering practice and validation process.

5.5 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through the Works and Infrastructure Department. Planned maintenance activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle.

Stormwater maintenance expenditure trends are shown in Table 5.5. Currently there is no process to allocate maintenance costs into different categories, however, from past experience it is estimated that the splits are reactive 5%, planned 70% and cyclic 25%.

Table 5.5 Stormwater Maintenance Expenditure (including internal labour and internal plant hire charges, excluding depreciation)

Year	Maintenance Expenditure
2019/20	95,799
2020/21	125,098
2021/22	70,158
2022/23	57,359
2023/24 YTD	63,738
Five year average	82,935

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience, professional judgement and review of condition monitoring and inspection data.

5.6 Summary of future maintenance expenditures

The proposed 2024-25 budget allocations for stormwater maintenance are shown in the table below:

Table 5.6 Summary of Stormwater Maintenance Budget

Category	Total Budget 2024-25
Contractors	15,000
Materials	13,000
*Internal Labour/Internal Plant hire	39,104
Total	**67,104**

*Internal labour and plant hire is not budgeted at an asset class level, however $39,104 is estimated based on prior year actual labour/plant hire cost allocation.

The above 2024-25 budget allocation for stormwater maintenance will be utilised for year 1 (2024-25) of the AMP 10 year planning horizon. To account for network upgrades/expansion as well as aging infrastructure it is assumed maintenance costs will grow at 5% annually in real terms. Thus at the end of ten years annual maintenance costs will rise to $102,549 in current year dollars. The average annual maintenance cost (over ten years) is $83,145 in real terms.

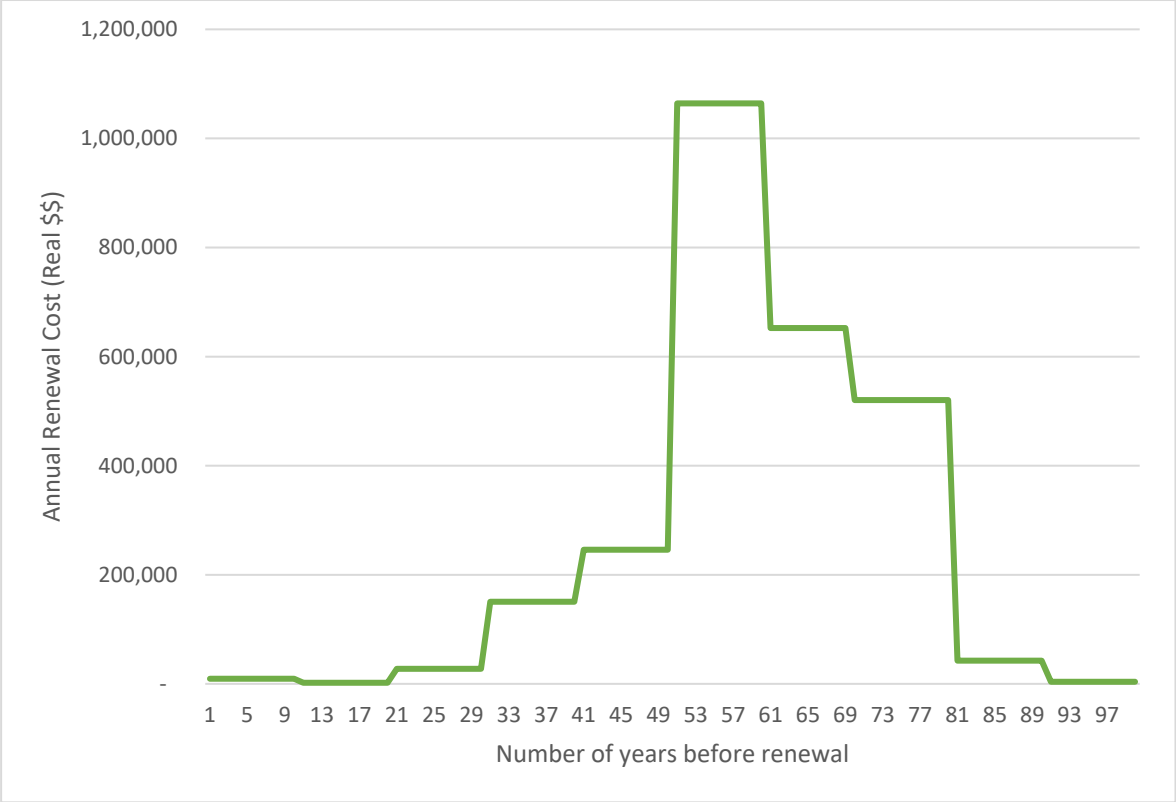
5.7 Renewal/Replacement Plan

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Stormwater assets in poor condition that regularly fail will be prime candidates for renewal. There will be a significant increase in renewal capital expenditure as the stormwater assets approach the end of their useful life. For the majority of the assets this will not be over the next 10 years of this AMP, but rather after this period. Figure 5.7 highlights the lumpy nature of asset renewal costs based on the age profile of assets (assuming the asset reaches the end of its useful life). This graph shows the first significant renewal expenditure taking place in 50 years at an average annual outlay in current year dollars of $1 million. For the purposes of this AMP Council officers estimate required annual capital renewal expenditure will be $33,000.

It is noted that replacement costs of stormwater assets are based on 'greenfield' assumptions – that is the replacement costs include components that may not need to be replaced, such as earthworks. Should stormwater assets be renewed at the same time as a road surface or pavement there could potentially be some reduction in replacement costs. An urban sealed road surface has a useful life of between 15 – 30 years. An urban sealed road base (pavement) has a useful life of between 50 – 80 years.

Figure 5.7: Projected annual renewal costs



5.7 Creation/Acquisition/Upgrade Plan

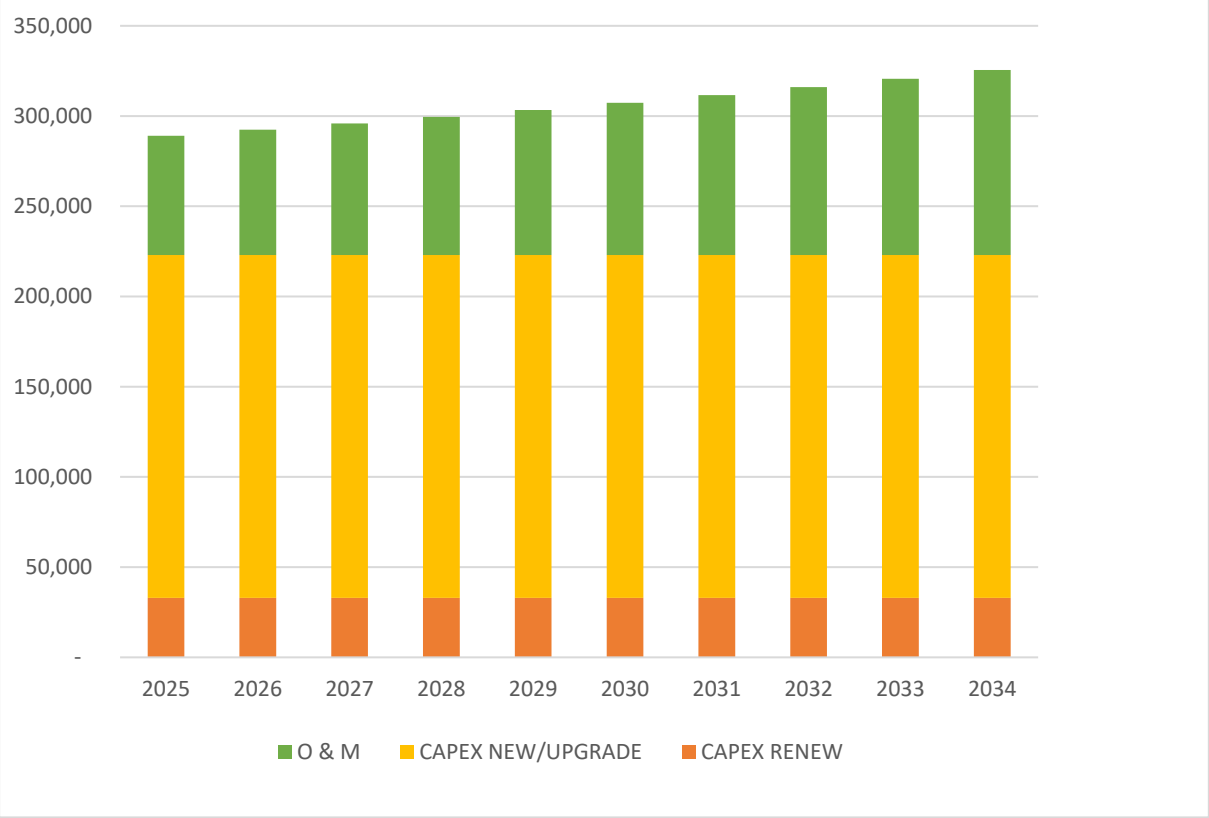
As highlighted earlier in this report urban development in the towns of Scottsdale, Bridport, Derby and Branxholm is placing increased demand on the stormwater network, both in terms of capacity and service area. Scottsdale and Bridport also have some capacity constraint issues that can also cause service failures during high rainfall events. Council is currently developing urban development strategic plans for high growth towns such as Bridport, Derby, Branxholm and Scottsdale. Environmental studies of local water ways are also currently in progress to determine the impacts of stormwater runoff on the local environment. These reports and strategies will be used alongside the existing stormwater management plans (SSMP) and hydraulic reports to guide future upgrades and expansion of the stormwater network. Based on available information it is estimated that the cost of upgrades and new stormwater assets over the 10 years of this AMP will be $190k per annum from 2025 to 2034 (in real terms).

6. FINANCIAL SUMMARY

6.1 Financial Projections

The financial projections are shown in Figure 6.1 for planned operating and capital expenditure.

Figure 6.1: Forecast O&M and Capital Expenditure (current year $$)



6.2 Sustainability of service delivery

The two key indicators for financial sustainability are life cycle costs and life cycle expenditure.

Life cycle costs are the average costs that are required to sustain the service levels over the average asset life and include maintenance and depreciation. The annual average life cycle cost for the services covered in this AMP (in real current year dollars) is $397,838 per year ($314,693 depreciation plus $83,145 average O&M)

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes O&M plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The average annual planned life cycle expenditure covered (in current year dollars) in this AMP is $116,145 per year ($83,145 average O&M plus $33,000 asset renewals).

There is a difference of $281,693 per year in the life cycle costs vs life cycle expenditure. This difference is explained by depreciation ($314,693 per annum) being higher than planned capital renewal expenditure ($33,000 per annum in real terms). As highlighted earlier, the low planned renewal expenditure relative to depreciation is because of of the age and condition profile of the assets.

6.3 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded in the Council's operating and capital budgets. The funding strategy is detailed in the Council's long term financial plan. It is noted that indexation of both operational and capital spend is carried out in the LTFP to ensure provision is made for cost rises over time. Grants will also be investigated when opportunities arise to fund new or renewal capital works.

7. ASSET MANAGEMENT PRACTICES

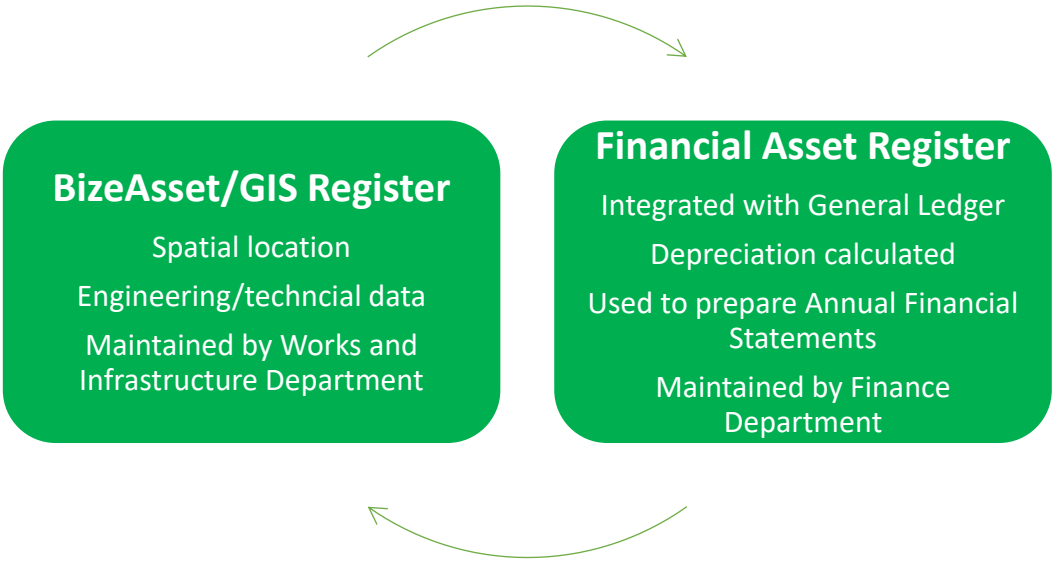
7.1 Asset Management Systems

All Council's stormwater assets are entered into Council's GIS software MAPINFO. MAPINFO is integrated with BizeAsset asset management software. The BizeAsset/GIS database is updated as new assets are constructed, modified or removed. The Infrastructure & Works Department maintain this module. Technical data such as length, size, material, and age are all recorded in this database. This database also has the capacity to revalue assets based on unit rates. It also can store condition levels of assets.

The financial information of stormwater assets is recorded in the CVR module of Authority, Council's Financial Management Software. This module is maintained by Finance. In accordance with Council's accounting policies, Stormwater assets are valued at Fair Value in accordance with Australian Accounting Standard Board (AASB) standard 13 'Fair Value Measurement' and AASB standard 116 'Property, Plant and Equipment'. A full revaluation of stormwater assets is preformed every 3-4 years in conjunction with updating the AMP. In the years between full revaluations, stormwater assets are indexed in line with the ABS other heavy and civil engineering construction index.

Significant work has been undertaken over the last two years to match the stormwater asset data between Authority and BizeAsset registers. As a result, each stormwater asset in BizeAssets has a corresponding asset in Authority. Having this 1:1 relationship between the two databases allows for the revaluation information (either from BizeAssets or an external source) to be transferred to the financial asset register in a timely manner. The relationship between to two systems is illustrated below in diagram 7.1:

Diagram 7.1: Relationship between BizeAsset/GIS Register and Financial Asset Register



8. PLAN IMPROVEMENT AND MONITORING

8.1 Improvement Plan

The asset management improvement plan generated from this AMP is shown below:

Task No	Task	Responsibility	Resources Required	Timeline
1.	Continuous improvement of BizeAsset/GIS field asset data	Works & Infrastructure	Internal resources	Ongoing
2.	Maintaining and improving the linkages between the financial and BizeAsset/GIS asset registers	Works & Infrastructure & Finance Departments	Internal resources	Ongoing
3.	Monitoring and addressing network constraints and performance deficiencies as identified in this AMP and SSMP	Works & Infrastructure	Internal resources/external consultants	Ongoing
4.	Investigate the engineering, financial and environmental feasibility for integrating stormwater outfalls and installing GPT devices across the Scottsdale and Bridport networks	Works & Infrastructure	Internal resources/external consultants	Ongoing

8.2 Monitoring and Review Procedures

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

The Plan has a life of 4 years.