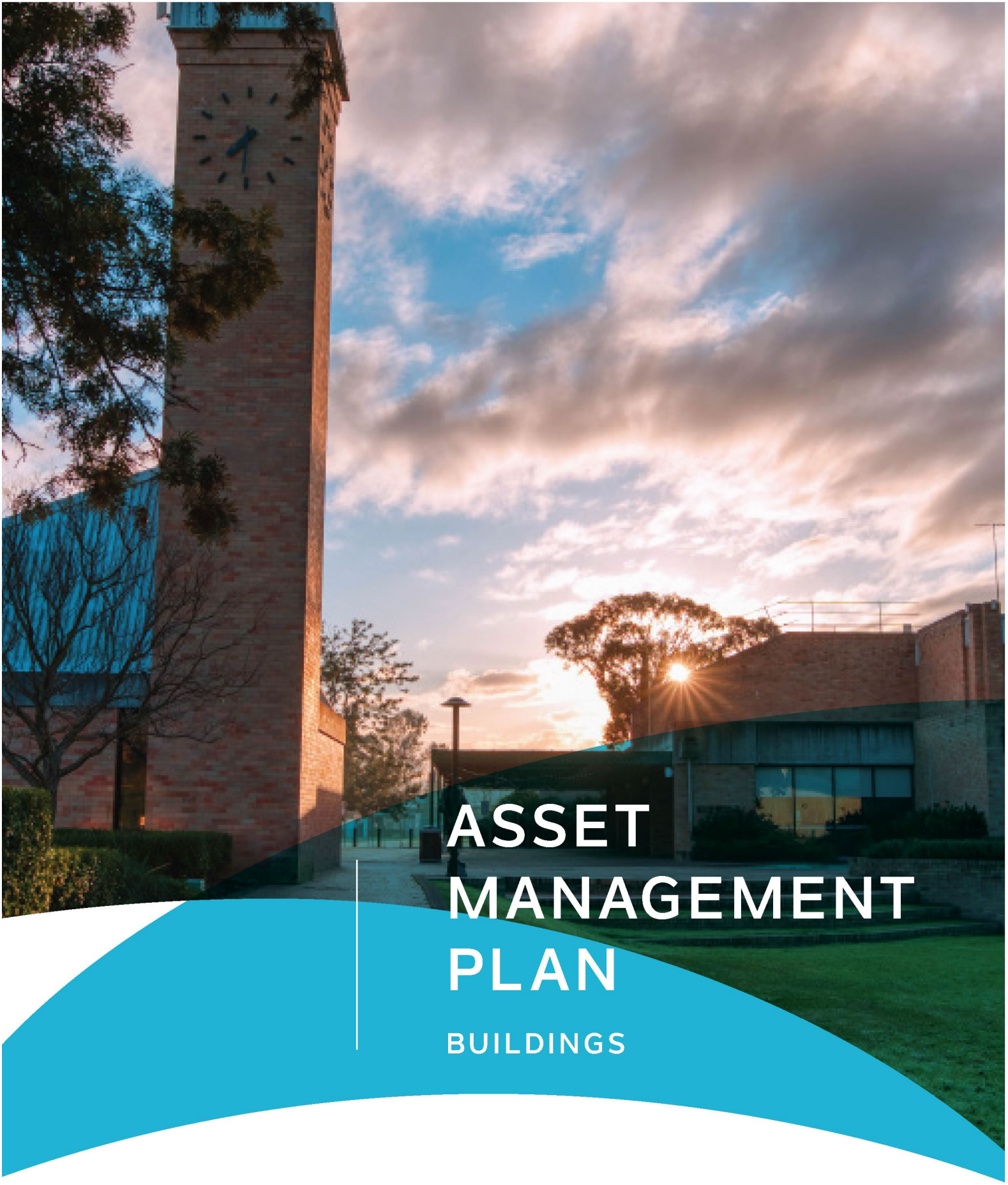

ASSET MANAGEMENT PLAN

BUILDINGS

SINGLETON COUNCIL

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CONTENTS

Document Control					
Rev No	**Date**	**Revision Details**	**Author**	**Verifier**	**Approver**
1	30/09/2021	Draft	NK	ML	DM

1. Executive Summary

Council's intention is to provide the Singleton local government area with a portfolio of Building assets that are serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The portfolio consists of buildings with a fair value of **$53.9 million** on the 30 June 2020.

This plan assists Council in the decision making process and is presented at a high level to provide key information that can used in the determination of levels of service and funding required. The following table identifies key asset categories in this plan, the ten (10) year total and average costs and funding gap if one exists. Figure 1.1 indicates the proposed expenditure over the next 10 years.

Given the nature of buildings, forecast expenditure in a lot of instances is not aligned with a specific component due to the large number of components in buildings, and the varying renewal costs of those components

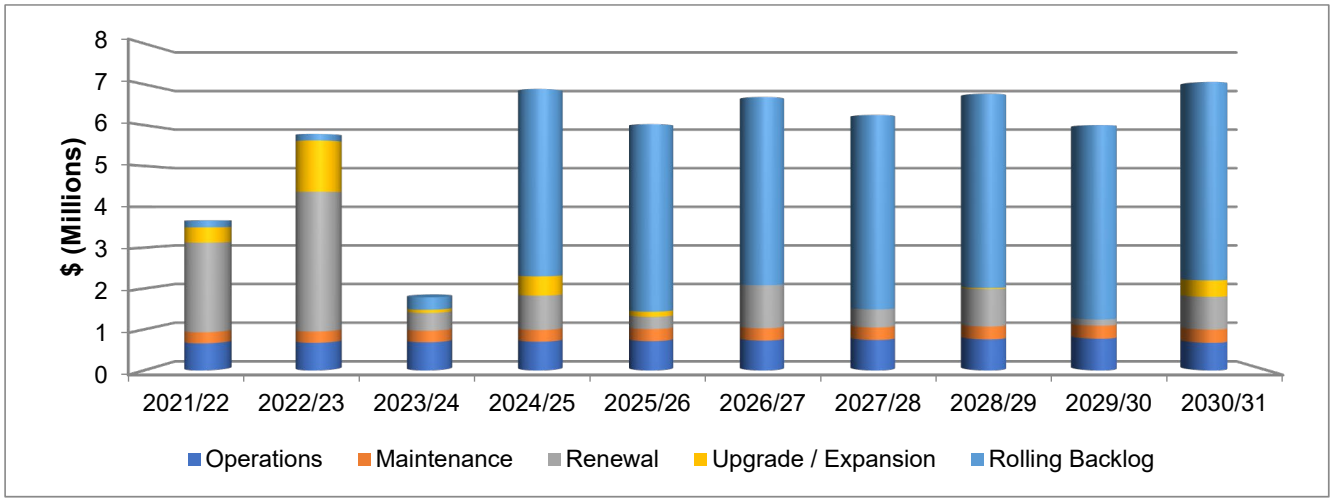
In Table 1.1 below, the required renewal funding for some components exceeds their total replacement cost over a 10 year period due to the life for certain components being less than 10 years, hence they will need replacing more than once in a 10 year period.

Table 1.1: Building Asset Portfolio Overview (2021 $,000)

Asset	Fair Value	Replacement Cost	Operation & Maintenance	Renewal	Upgrade & New	Funding Gap	Backlog Year 1	Backlog Year 10
Building Envelope	12,711	16,928	238	465	208	19		185
Electrical Services	5,002	6,015	94	26	5			
Fire and Security Services	861	796	16	25		9		85
Fit out	4,174	5,892	78	254	23	12		115
Floor Finish	1,283	2,795	24	21		30		300
Floor	8,771	922	164					
Mechanical Services	3,220	3,933	60	74		55		550
Roof	12,421	15,211	233	109	10	346		3,460
Plumbing and Sanitary	5,423	6,265	102	8	5	16	160	160
Transport Service	87	104	2					
Site Feature				71	22			
Total	**53,953**	**58,862**	**1,012**	**1,053**	**272**	**486**	**160**	**4,855**

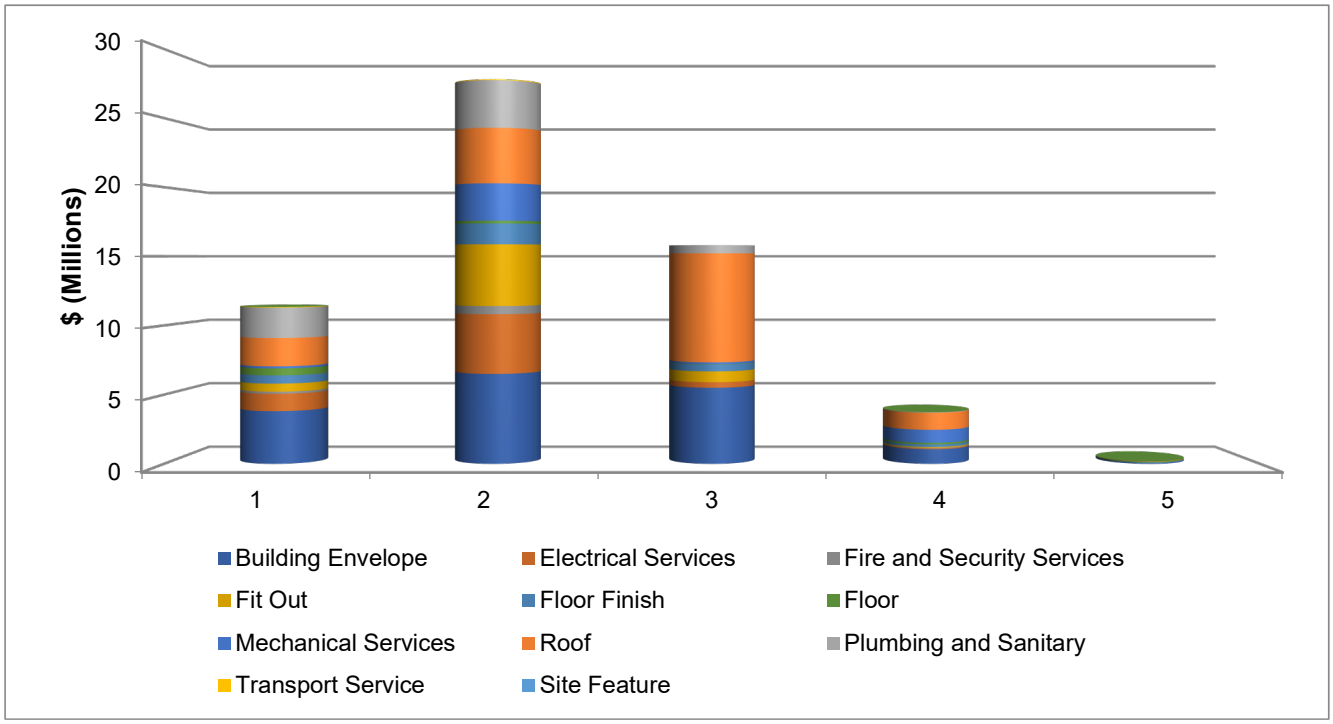
The following figure identifies the proposed expenditure over the next 10 years together with the backlog. The identified backlog in year 1 of the plan is $160,000 and would be $4,855,000 after 10 years at current funding levels.

Figure 1.1: What will we spend over the next 10 years (2021 $M)



The current condition of our buildings is shown in the following graph based on the value of each component ranging from 1 to 5, with 1 being near new and 5 as an almost failed asset.

Figure 1.2: What condition are our assets in ($M)



The process of managing our Building assets is one of continually improving the knowledge Council has, including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level. Section 12 contains details of the plan to further improve the details contained in the next Plan.

2. Strategic Objectives

The 2022-2032 Community Strategic Plan outcomes that are supported by this Building AMP include:

- Provide safe and well-maintained facilities and infrastructure
- Collaborate to enhance, protect and improve our environment
- Increase the planning and preparedness for natural disasters
- Infrastructure, services, facilities and Council are managed in a financially sustainable way

Singleton Council developed a comprehensive community engagement strategy to ensure a broad range of opinions; ideas and visions were captured to help shape the 2017-2027 Community Strategic Plan. The outcomes & strategies supported by that plan are detailed in the Strategic Asset Management Plan.

To assist in the delivery of the objectives in this plan, several key documents & systems have been prepared and should be referred to in considering the findings presented:

Table 2.1: Where can I find additional information

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community
Council Asset Policy	How we manage assets
Asset Management Strategy	Overall direction of asset management and portfolio summary
Asset Management Manual	Procedures and Processes that guide the management of assets
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions
Enterprise Risk Management Plan	The identification and management of risks across Council operations
Civica Asset Management System (AM)	Electronic system that contains the asset register, condition ratings and used to model future renewals
GIS	Geographical information system that produces maps of assets

3. Services Provided & Classification

The level of service provided to each individual building will be based on the classification of that building to ensure that those with the highest utilisation, requiring the best presentation, increased response times and increased levels of renewal can be separated from those that essentially provide a storage function, as well as classes in between.

A simple ranking scheme of A, B, C and D is used, where A has the highest ranking.

Factors considered in assigning the ranking of individual buildings include: their occupancy and usage, community profile and the impact on the community if the building was non-functional. Common characteristics are outlined in Table 3.1

Table 3.1: What are some of the common characteristics of buildings in each class

Classification	Characteristic
A	• Buildings that house the corporate and administrative functions of Council • Buildings that are used more than 30 hours per week by Council staff or the public • Buildings that require a high standard of presentation, access, safety and maintenance
B	• Buildings that house community and cultural activities • Buildings that are used regularly by Council staff or the public • Buildings that do not require the highest standards of presentation • Buildings that require access and facilities for the disabled
C	• Structures that are not fully enclosed • Buildings that are used for storage, workshops, and other operational uses • Buildings that are only accessed by Council staff for short periods
D	• Buildings that house community and cultural activities, with the community groups providing minor maintenance and cleaning. • Buildings that are leased, with the lessees determining the day-to-day requirements of the building. • Buildings that are not accessed by Council staff unless requested to do so.

The number of buildings in each classification is detailed in the following table.

Table 3.2: Building Categories and Classifications

Category	A	B	C	D	Total
Community- Recreation				12	12
Community- Public Toilets (Amenities)		17			17
Community- Community Buildings	3	6		4	13
Operational- Administration	6				6
Operational- Workshop/Storage			4		4
Operational- Waste Management		2			2
Operational- Water and Sewer		20			20
Operational- Commercial				7	7
Operational- Emergency Services				18	18
Total	**9**	**45**	**4**	**41**	**99**

Refer to Appendix E for the detail of buildings in each classification

4. Levels of Service

Level of service are key business drivers and influence all AM decisions. Level of service statements describe the outputs that Singleton Council intends to deliver to its community and customers and other stakeholders.

Level of service typically relates to service attributes such as quality, function, and capacity.

Level of service provide the link between higher levels corporate and AM Objectives and more detailed technical and operational objectives. Service levels are defined in two terms, community levels of service and technical levels of service.

Building assets have been categorised into classes to assist in the determination of Levels of Service (LOS) which are grouped into:

- Community LOS – relates to how the community receives the service in terms of safety, quality, quantity, reliability responsiveness, cost efficiency and legislative compliance; and
- Technical LOS – are the technical measures of performance developed to ensure the minimum community levels of service are met.

4.1.1 Community Level of Service

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

- Quality - How good is the service?
- Function - Does it meet users' needs?
- Capacity/Utilisation - Is the service over or under used?

4.1.2 Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Function:

- Operations – the regular activities to provide services such as, providing electricity and utilities, cleaning of premises, checking on the fire safety equipment, and inspections of the buildings.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition, such as repairs to doors and windows, fixing air condition units, replacement of lights and painting.

Quality:

- Renewal – the activities that return the service capability of an asset up to that which it had originally, e.g. frequency and cost of roof replacement, refurbishment of the inside of amenities, overhaul of the swimming pool sand filters.
- Upgrade – the activities to provide a higher level of service e.g. additional accessible toilets to an existing building, addition of a lift for the elderly, larger air conditioning system.

Capacity/Utilisation:

- New service – is the activity to provide an asset that did not exist previously e.g. a new arts and cultural centre or new child care centre.

Table 4.1: Community Level of Service – Quality

Community Levels of Service						Technical Service level							
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Target Expenditure**	**Actual Expenditure**	**Renewal Ratio**
Quality	Buildings	Public buildings are safe for public usage	Asset Inspections	100% Annually		Average condition of Building assets	93.80%	% of Assets in condition 3 or better	Renewals		$910,600	$727,000	79.84%
	Buildings	Sustainably managing the aged condition of building assets	CRM's	Reduce annually		Rate of annual asset consumption	Renewal's ratio	100%					

Table 4.2: Community Level of Service – Function

Community Levels of Service						Technical Service level								
Service Attribute	**Asset Category**	**Level of Service Objective/ statement**	**Performance measure process**	**Current Level of service**	**Performanc e Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Cost / unit**	**Required Maintenance**	**Actual**	**Maintenance Ratio**
Function	Buildings	Assets are maintaine d in good condition	Customer service requests relating to building maintenance	Number of CRM	Reducing the CRM number by 5% annually	Maintenance standards	compliance with specification	100%	Maintenance		see below	$1,149,008	$594,039	51.70%
	Buildings	Provide prompt response s for service	Customer service requests relating to building maintenance	Number of CRM's complete d within dedicated response times	85% with customer charter	No of building defects identified	Reduce outstanding high-risk defects	5%reduction per year	Maintenance					

Table 4.3: Community Level of Service – Capacity/Utilisation

Community Levels of Service						Technical Service level						
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Target Expenditure**	**Actual Expenditure**
Capacity/ Utilisation	Buildings	Club houses are fit for purpose and multipurpose	Buildings are designed to allow for multiple uses	Customer satisfaction survey		new capital ratio			New	$ 981,000	$273,180	$981,000
	Buildings	Provide Sustainable Assets	reduce overall energy consumption	energy consumption		Al large Assets are fitted with energy saving lights			New			

5. Condition of Our Assets

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

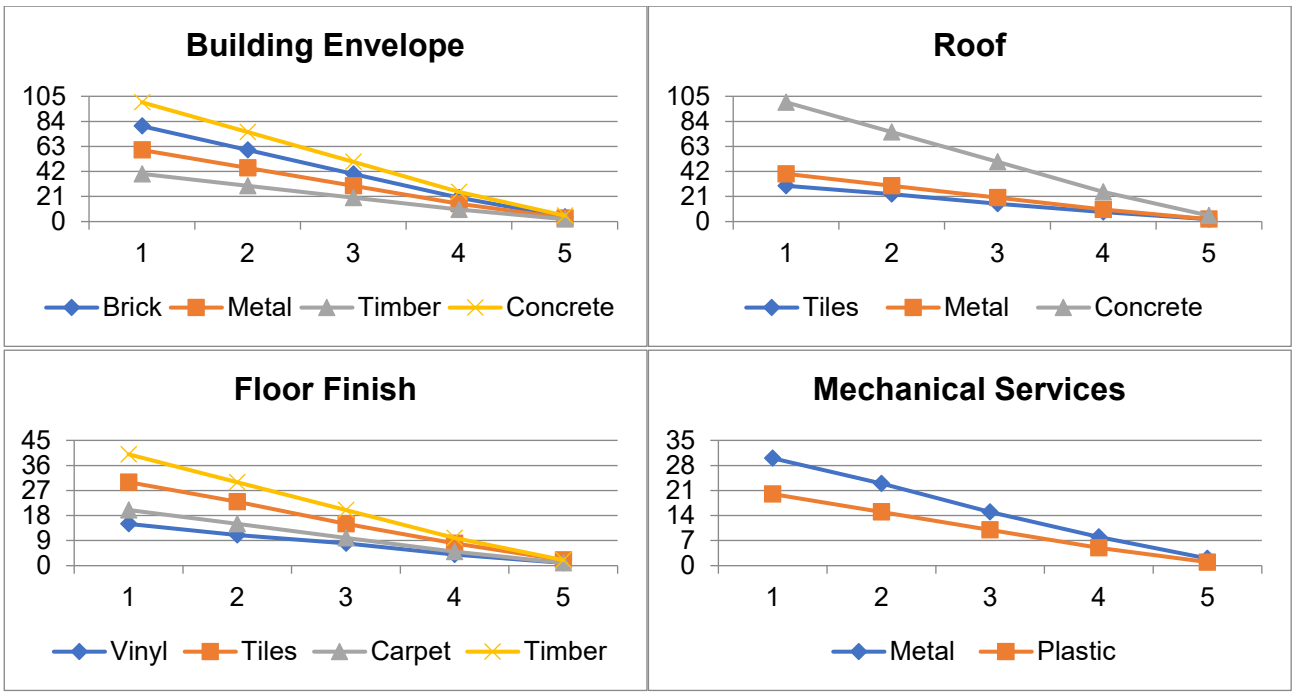
Assets are rated on a 1 (Near New) to 5 (Almost Completely Failed) scale consistent with the advanced asset management practices as outlined in the IPWEA International Infrastructure Management Manual. Details on how Council assesses condition and further information on the rating scale are contained in the Condition Assessment Manual.

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level', that is the condition at which the community has determined renewal is required based on the LOS analysis. Typically, assets will be renewed between condition 4 and 5 which ranges from fair/poor to very poor depending on their classification.

Deterioration profiles have been developed that track the rate of deterioration expected over time for each material type in each asset group. This information is used in our models to determine when an asset is expected to be due for renewal, noting that assets will only be renewed when they reach their intervention condition, not based on their age.

Figure 5.1 provides examples of several deterioration profiles used with the vertical column showing the years remaining at a particular condition. For example, a building roof made from metal at a condition 3, will last 20 years until it is considered close to failure, at condition 5.

Figure 5.1: At what rate (%) do we expect our assets to deteriorate



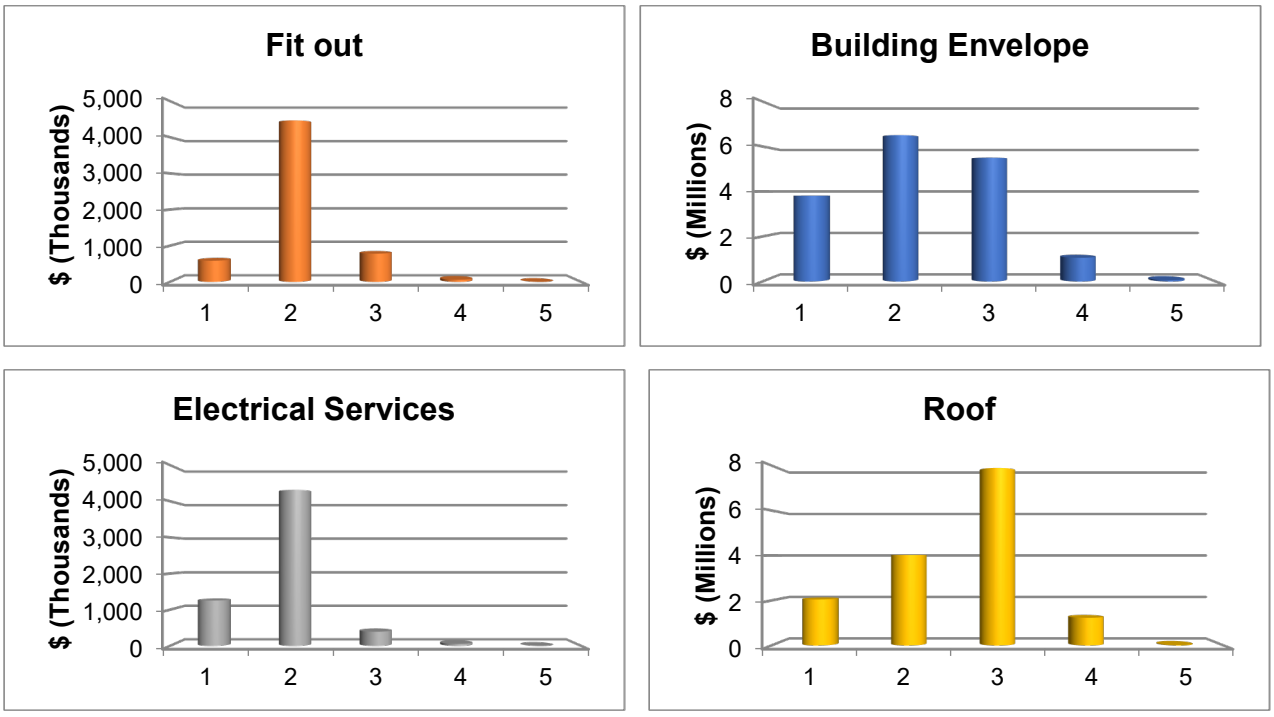
Using the information from the curves above and the intervention level set for the class of an asset we can determine the expected useful life of our assets as detailed in table 5.2 below.

Table 5.1: What are the expected useful lives and intervention levels of our assets (years)

Component	A	B/C	D	Renewal Intervention level
Carpet	15	20	25	4
Vinyl	14	25	30	4
Replace Timber Floor	30	45	50	4
Replace Tiled Floor	30	45	50	4
Renew Roofing	50	75	85	4
Interior Paint	15	18	25	4
Exterior Paint	8	13	15	4
Ceiling	15	18	25	4
Renew Lighting	25	30	40	4
Electrical	25	27	30	4
Wet Area Replacement	30	45	55	4
Ducted Air Conditioning	30	45	55	4
Split Air Conditioning	10	12	15	4
Elevator – lift controller	30	45	45	4

Each asset's condition is maintained in the Asset Register and the graphs below gives the condition profile based on the value of the top 4 valued assets in each condition.

Figure 5.3: What Conditions are our assets in ($,000)



6. Operations

Operational activities are those regular activities that are required to continuously provide the service including asset inspection, utility costs, cleaning, security, and overheads.

To ensure that buildings remain viable and well maintained, it is essential that inspections are undertaken on a regular basis to assess the condition of each building. In addition, we need to update risk management plans and ensure that the building portfolio is adequately insured.

To support this process, all buildings and their components will be inspected on a 2/3-year basis for the condition of these assets. Whereas the maintenance for the buildings will be inspected annually. Any component of a building in a poor condition of a 4 as stated above in **Table 5.1** will be inspected annually. This is to assist in the coming years renewal program and to ensure that the component at that intervention level is thoroughly inspected to ensure that it actually requires replacement.

Table 6.1: When do we undertake Inspections

Inspection Frequencies & Responsible Department				
Building Asset	Proactive Inspection Defects	Responsible Department	Programmed Inspection Condition – Visual (condition 4&5)	Responsible Department
Condition Assessments	Nil	Recreation and Facility	Annually 2 to 3 year cycle	Asset Planning
Maintenance assessments	Annually	Recreation and Facility	Annually	Asset Planning
Fire Safety Assessments	6 monthly	Recreation and Facility	Nil	Asset Planning
Cleaning Tender	3 monthly	Recreation and Facility	Nil	Asset Planning
Alarm Monitoring	6 monthly	Recreation and Facility	Nil	Asset Planning
Safety Inspections	As required	Recreation and Facility	As required	Asset Planning
Lease Agreements	Annually	Recreation and Facility	Nil	Asset Planning

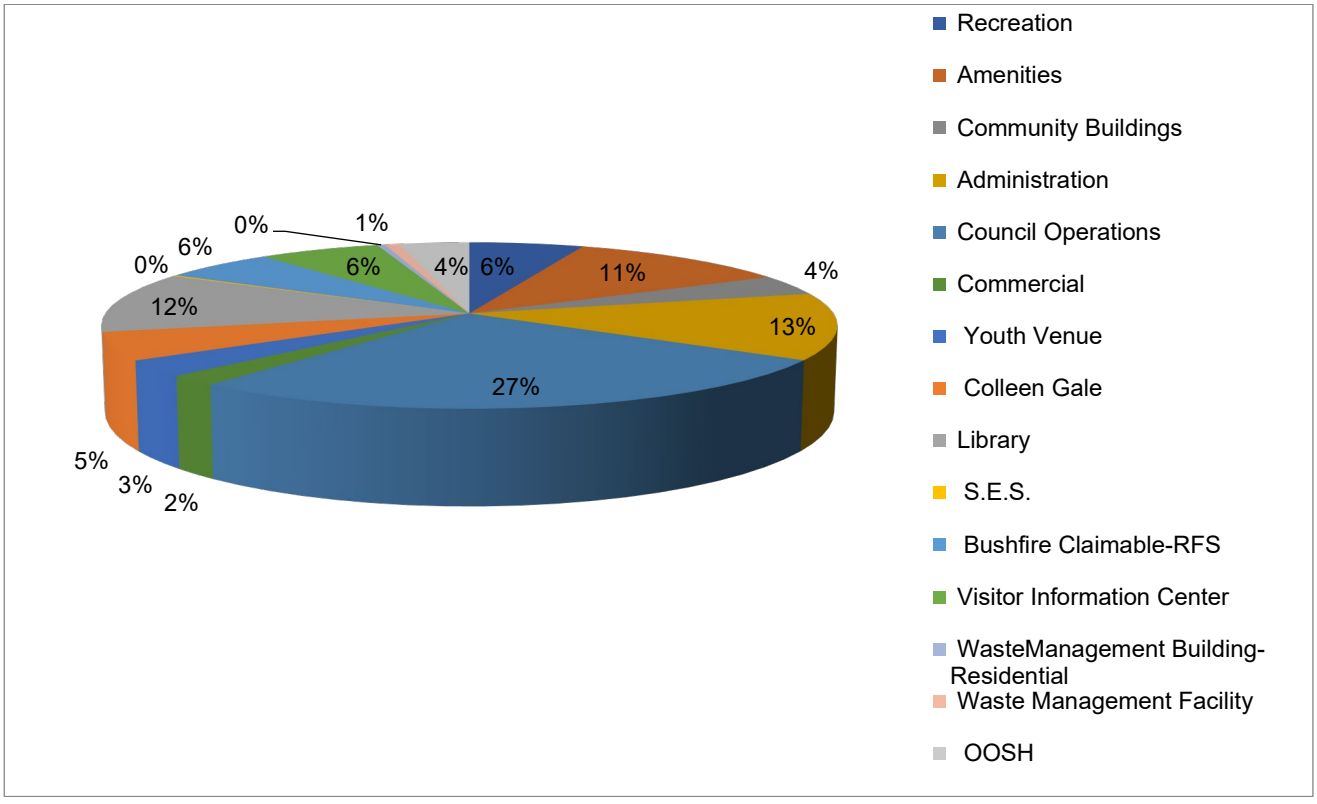
Our Operational costs for the buildings are split against individual buildings and groupings of buildings. This method has been adopted as it follows the current finance costings of Council's buildings. In each group are many buildings whereas individual sites are only a few buildings, therefore the graph shows most of the expenditure is in the Council Operations area which is depots, offices and main water and sewer supplies.

Below is a split of the operational costs shown in both wholes figures as in **Table 6.2** and graphically in **Figure 6.1.**

Table 6.2: What are our Operational Costs

Item	Budget ($) - Average over 10 years
Recreation	41,000
Amenities	81,000
Community Buildings	28,000
Administration	92,000
Council Operations	193,000
Commercial	14,000
Youth Venue	23,000
Colleen Gale	39,000
Library	84,000
S.E.S.	1,000
Bushfire Claimable-RFS	41,000
Visitor Information Centre	44,000
Waste Management Building- Residential	3,000
Waste Management Facility	5,000
OOSH	25,000
Total	**715,000**

Figure 6.1: What is the breakup of our Operational Costs



7. Maintenance

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and need immediate repair to make it operational again. It may be either planned where works are programmed in or cyclic in nature or reactive in response to storm damage, vandalism etc.

All works requests relating to the operation of toilets, power, gas, lighting, operation of hot water systems, heating or cooling units, water intrusion into ceilings or building structural integrity will be actioned in a timeframe that is pertinent to the operation of that building. For example, if the air conditioning system malfunctions in a category A building it does not mean that it will be repaired any quicker to those that are in the other categories. The Singleton Gym and Swim relies heavily on the air conditioning systems to work whereas a works depot area does not as the staff are most likely onsite anyway.

Therefore, any building of Council's in any category that is at risk to a safety issue such as to the mains pressure water supply, firefighting equipment, safety concerns or loss of integrity of the security of the building will be actioned as soon as possible.

Requests relating to the, floor surface failure, termites and vermin, to be investigated within the timeframes as stated in Council's Customer Service Charter.

Preventative maintenance activities are essential to the protection of the fabric of a building, or are activities required to meet compliance and regulatory standards for continued occupation of a building. Routine maintenance tasks will be undertaken on building class as follows:

Table 7.1: What are our Maintenance Activities and the frequency we undertake them

TASK	Frequency (in months)			
	Class A	Class B	Class C	Class D
Fire Safety - Service and maintain sprinkler & hydrant fire system - Inspect emergency lighting systems and smoke detectors - Check & tag fire extinguishers	Every 6 Months (as per legislation)			
Inspect and service air conditioning including extraction fans	Monthly	As required	As required	As required
Inspect gutter systems & clear as necessary - Empty storm water pits & sumps	Yearly or as required			
Automatic door service	12 monthly	12 monthly if applicable	N/A	12 monthly if applicable
Lift service	N/A	6 monthly	N/A	6 monthly

TASK	Frequency (in months)			
	Class A	Class B	Class C	Class D
Pest Management - Vermin inspection and laying of baits - Termite inspection (where applicable)	3 monthly	3-12 mthly depending on vermin/pest pressure	N/A	3-12 mthly depending on vermin/pest pressure
Clean amenities	As per section 14 Table 14.2	As per section 14 Table 14.2	N/A	As per section 14 Table14.2
Gurney washdown of exterior of building	As required	As required	N/A	As required
Plumbing TMVs and Backflow Device	Every 12 months			
Switchboard Service	Every 12 months			

Adjusting the Levels of Service

The opportunity to adjust the level of service provided is primarily through two options:

1. Change frequency of inspections and servicing, or
2. Change the classification of buildings.

The consequence of doing either of these (or a combination of both options) in order to reduce expenditure is an expected increase in failures in building components as well as an increase in the level of complaints received from the users of those assets now that they are not being maintained to the same standard the user has come to expect.

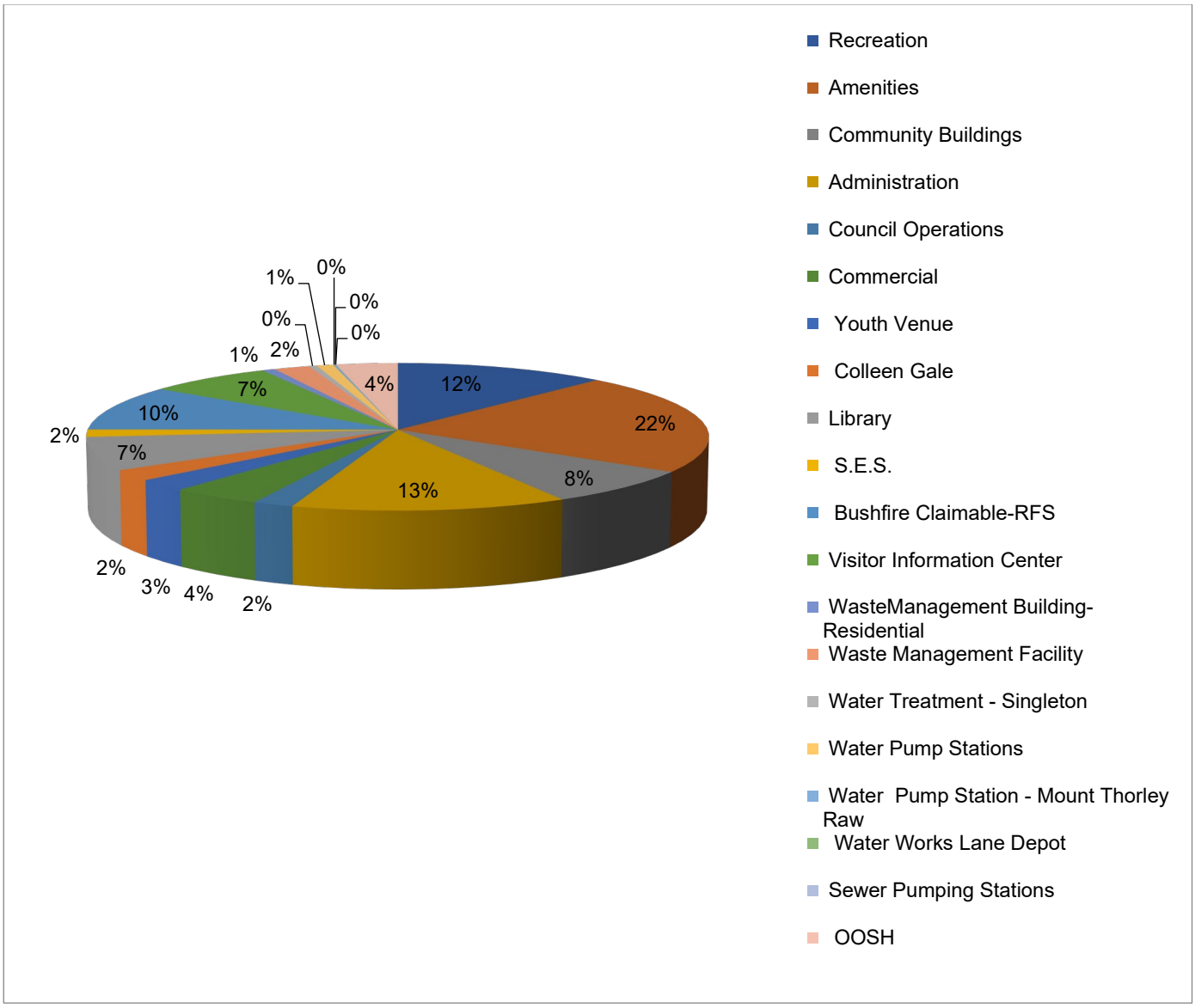
Option 1 also has the potential to increase costs where cost effective servicing and inspections can result in the component failing and potentially requiring expensive replacement.

Table 7.2: What are our Maintenance Costs

Item	Budget ($) – Average over 10 years
Recreation	36,000
Amenities	66,000
Community Buildings	23,000
Administration	39,000
Council Operations	6,000
Commercial	13,000
Youth Venue	8,000
Colleen Gale	7,000
Library	22,000
S.E.S.	5,000
Bushfire Claimable-RFS	30,000

Item	Budget ($) – Average over 10 years
Visitor Information Centre	21,000
Waste Management Building- Residential	2,000
Waste Management Facility	6,000
Water Treatment - Singleton	1,000
Water Pump Stations	3,000
Water Pump Station - Mount Thorley Raw	
Water Works Lane Depot	
Sewer Pumping Stations	
OOSH	10,000
Total	**297,000**

Figure 7.1: What is the breakup of our Maintenance Costs



8. Capital Renewal / Rehabilitation

This includes work on an existing asset to replace or rehabilitate it to a condition that restores the capability of the asset back to that which it had originally. The intervention level and estimated useful lives are contained in **Table 5.1**.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than the full replacement cost.

This Asset Management Plan contains an analysis based on broad assumptions and best available knowledge to date. Modelling is not an exact science, so we deal with long term averages across the entire asset stock. Work will continue to improve the quality of our asset registers and systems to increase the accuracy of our renewal models.

The Strategic Asset Management (SAM) module through Authority is the asset management program used by Council based on predicted useful lives for each building component. These useful lives are based on industry standards and then adjusted where relevant to align with local conditions (eg. dry & hot summers, no threat of degradation by salt air). A snapshot of expected useful lives for common building components is found at **Table 5.1** above.

The component renewal list is generated via a mixture of condition inspections, remaining life of the asset and what the modelling from the Strategic Asset Management system identifies. The components that are proposed for their renewal will be further inspected to ensure that the remaining life and condition are accurate, and a preliminary estimate for renewal can be forecast. Verified proposals are ranked by priority and available funds are scheduled in future works programmes.

Details of planned renewal activities proposed in the current Delivery Program are contained in **Appendix B** for each asset category. The first year of the program will be considered in the development of the next Operational Plan and the remaining 3 years of work will be assessed each year to confirm that the asset has reached its intervention level prior to the work being scheduled.

The costs presented in the following table identifies the current level of funding for the required renewal programs and the funding required to maintain the asset to what is considered an appropriate standard. The required funding in that table is based on the intervention specified in Section 5.

The average annual renewal gap as shown in **Table 8.1** below is difficult to ascertain as the cost numbers currently used for buildings, for the most part, do not clearly delineate between maintenance and renewals. That is, a substantial amount of the funds budgeted as maintenance expenses will involve the renewal of building components such as floor coverings, etc.

Table 8.1: What are our Renewal Costs, Gap and Backlog (2021 $,000)

Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Building Envelope	465	484	19		185
Electrical Services	26	26			
Fire and Security Services	25	34	9		85
Fit out	254	266	12		115
Floor Finish	21	51	30		300
Floor					
Mechanical Services	74	129	55		550
Roof	109	455	346		3,460
Plumbing and Sanitary	8	24	16	160	160
Transport Service					
Site Feature	71	71			
Total	**1,053**	**1,539**	**486**	**160**	**4,855**

The following graphs show the proposed expenditure on renewals over the next 10 years and the rolling backlog in any one year over that period. Two graphs are presented due to the high impact of the rolling backlog. **Figure 8.1** indicates that, based on current projections, Council will spend $1,053,000 per annum on renewals.

Figure 8.1: What will we spend (2021 $,000) over the next 10 years on Renewal

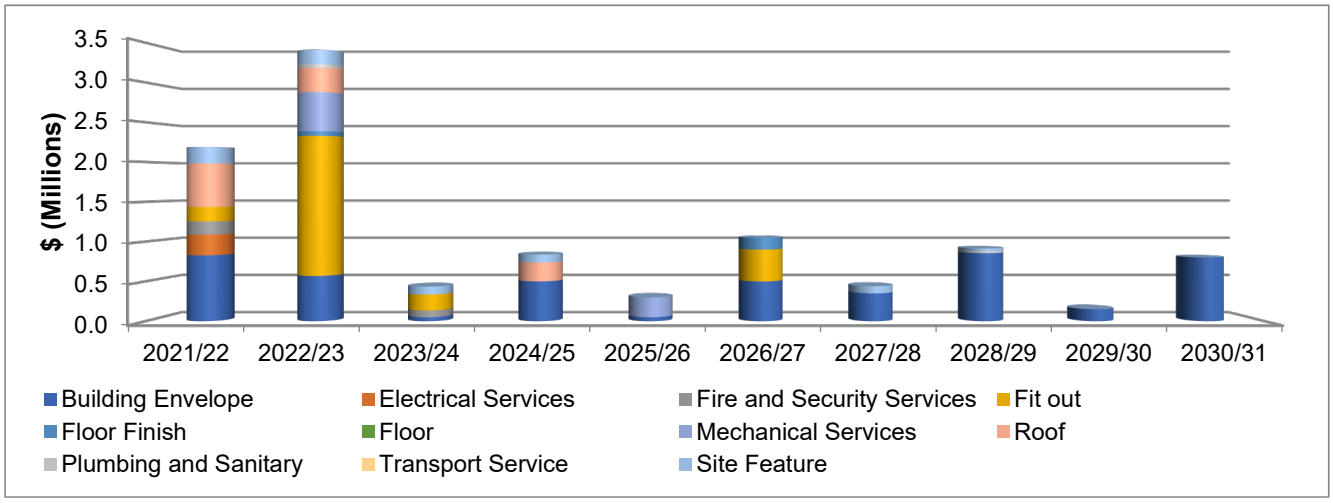
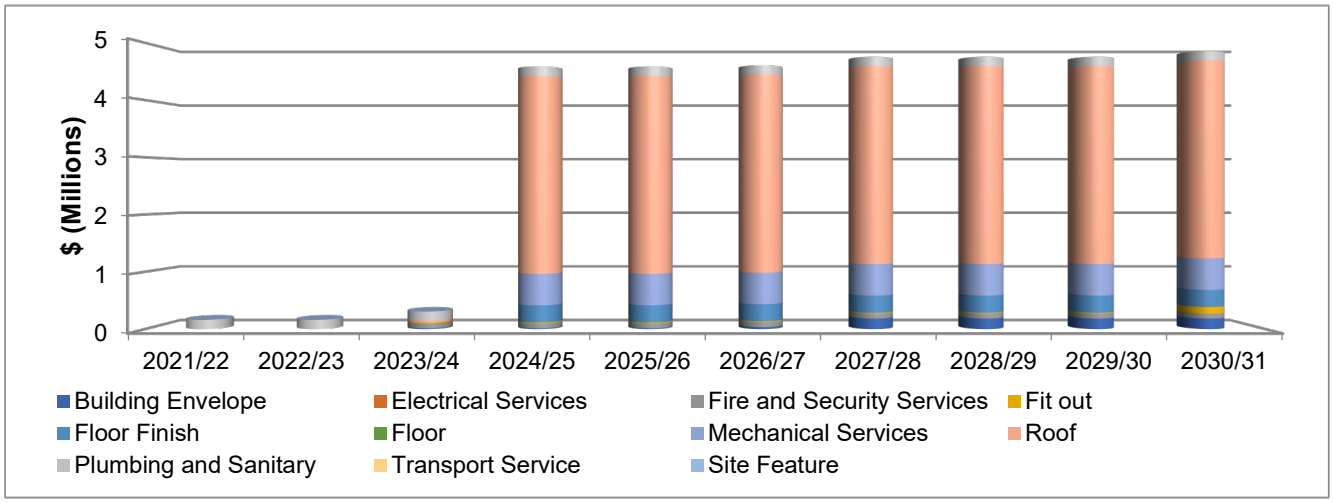


Figure 8.2 indicates that in any year the value of work exceeding the intervention levels set in this Asset Plan will reach $4.855M at the end of 10 years. However, from **Table 8.1**, when considering the renewals required over the next 10 years, an additional $486,000 per year would be required to ensure no backlog of works in 2030/31.

Figure 8.2: What are the projected rolling backlog splits ($,000)



Lifecycle costs

The lifecycle costs are determined based on the total cost of ownership of each asset including operations, maintenance, renewal and disposal costs. The ten (10) year average annualised lifecycle costs for a particular air conditioner type is presented in **Table 8.2** as an example of total lifecycle costs for a particular component.

Table 8.2: What are our Lifecycle Costs? (to be developed in next revision)

Component	Units	Total lifecycle cost

9. Capital Upgrades & New Assets

Upgrades enhance an existing asset to provide a higher level of service, for example refurbishment of an amenity block so it is clean and fresh in appearance. New assets are those created to meet an additional service level requirement or increase the size of the number of buildings in a depot, for example additional offices at a works depot site or an additional childcare centre in a new housing area.

The requirements for new assets may result from growth, social or environmental needs. The impact from growth is included in the demand analysis within the Asset Management Strategy.

Both capital types may be funded at least in part through Developer Contributions in the form of a Section 64 or s7.11 Contribution, a Voluntary Planning Agreement, or as part of a subdivision development.

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

Council has developed a framework for the prioritisation of capital projects and that information is used in the consideration of all new projects above the threshold set in the framework. Included in the analysis is the identification of life cycle costs as outlined in the Asset Management Strategy.

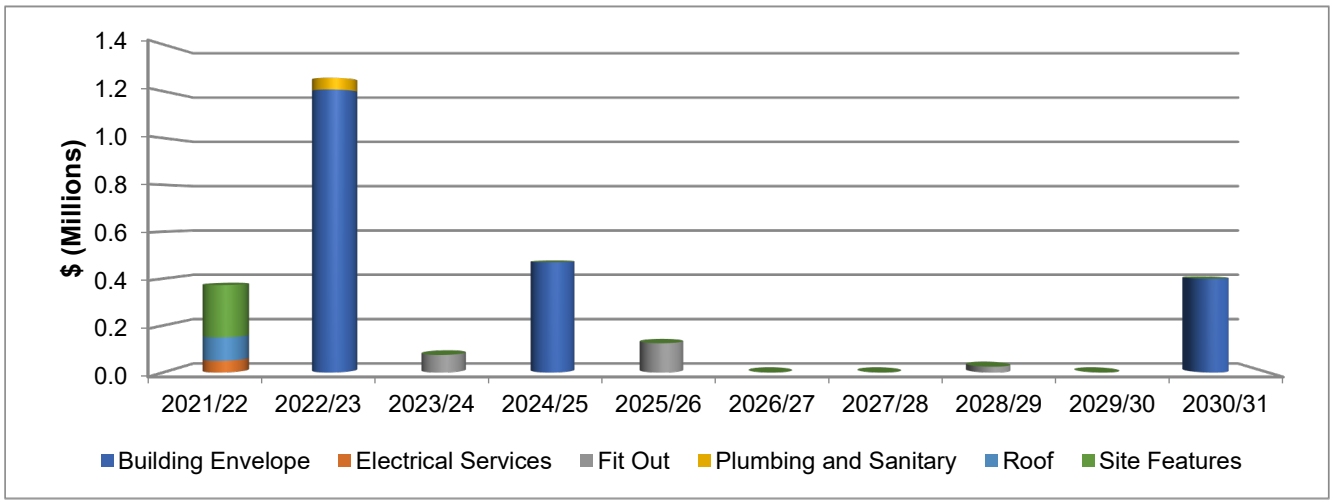
Council has an adopted strategy for the expansion of buildings with the following new / upgraded assets proposed over the next 10 years to meet demand and safety improvement requirements. **Table 9.1** indicates the major projects and groups of new / upgraded assets proposed. A complete list is contained in **Appendix C**.

Table 9.1: What are the top upgraded / new assets proposed over the next 4 years ($)

Project	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects					
James Cook Park - New Athletics Clubhouse		1,107,036			1,107,036
Auditorium - Forecourt Beautification Project	132,283				132,283
Administration - Disability bathroom - Design only		50,000			50,000
Administration - Improvements to Customer Service area for disability access			75,000		75,000
Works Depot - Design of area to include Water and Sewer		100,000			100,000
Mirannie RFS - New Fire Shed				270,000	270,000

Project	2021/22	2022/23	2023/24	2024/25	Total
Construction of additional waste drop off areas	100,000				100,000
Install weighbridge boom gates	50,000				50,000
Electricity supply review and install Solar PV system/s @ WMF	50,000				50,000
Investigate Waste Management Facility Fern Gully Road Closure and purchase land	20,000				20,000
Fencing Fern Gully Rd land acquisition	20,000				20,000
Construction of hardstand area behind Community Recycling Centre				200,000	200,000
Total Funded	**372,283**	**1,257,036**	**75,000**	**470,000**	**2,174,319**
Unfunded Projects					
Administration - Disability bathroom - Construct				500,000	500,000
VIEC - LED lighting adding				125,000	125,000
Burdekin Park - Accessible ramp to the music shell and landscaping (Buildings)				50,000	50,000
Singleton Heights Sports Centre - Disability emergency access			70,000		70,000
Works Depot upgrade to include Water and Sewer				13,000,000	13,000,000
Total Unfunded			**70,000**	**13,675,000**	**13,745,000**

Figure 9.1: What will we spend over the next 10 years on Upgraded or New Assets ($,000)



The amounts in **Figure 9.1** above have been drawn directly from the four year adopted budgets for buildings. There is no capital works budget for all buildings that extends past four years.

10. Disposal Plan

Disposal is any activity associated with disposal of a decommissioned asset including sale, demolition, or relocation. Assets with a condition rating of 5 (very poor condition), where the community don't require the asset (as they have raised concerns or complaints about the asset condition) may be a redundant asset or not utilised and therefore decommissioned and disposed unless it is considered critical infrastructure.

Table 10.1: What assets are we planning to dispose of

Asset	Reason	Year	Cost
Old Building Maintenance Shed at Pound Park	Condition 5 asset. Old timber shed no longer required.	2023	$15,000
Old Garage Shed at 47 Glendon Road	Condition 5 asset. Timber attacked by white ants, and asbestos sheeting breaking away.	2023	$70,000
Old Storage Shed at Water Works Lane Depot	Condition 5 asset. Building was condemned in 2019.	2022	$20,069
Old School House at Scotts Flat RFS	Condition 5. Issues with sinking and water damage	2024	$110,000
Old School Weather Shed at Scotts Flat RFS	Condition 5. Issues with rotting timbers – no longer used	2024	$10,000
Singleton Heights Community Centre	Condition 4 bordering on condition 5.	2025	$20,000
Total			**$245,069**

11. Financial Plan

As part of its funding strategy, Council has the option to supplement any or all of the current or new Building proposals that come into consideration for construction with borrowings. This strategy is heavily influenced by the monitoring of Councils Debt Service Ratio which is the capacity of Council to repay principal and interest.

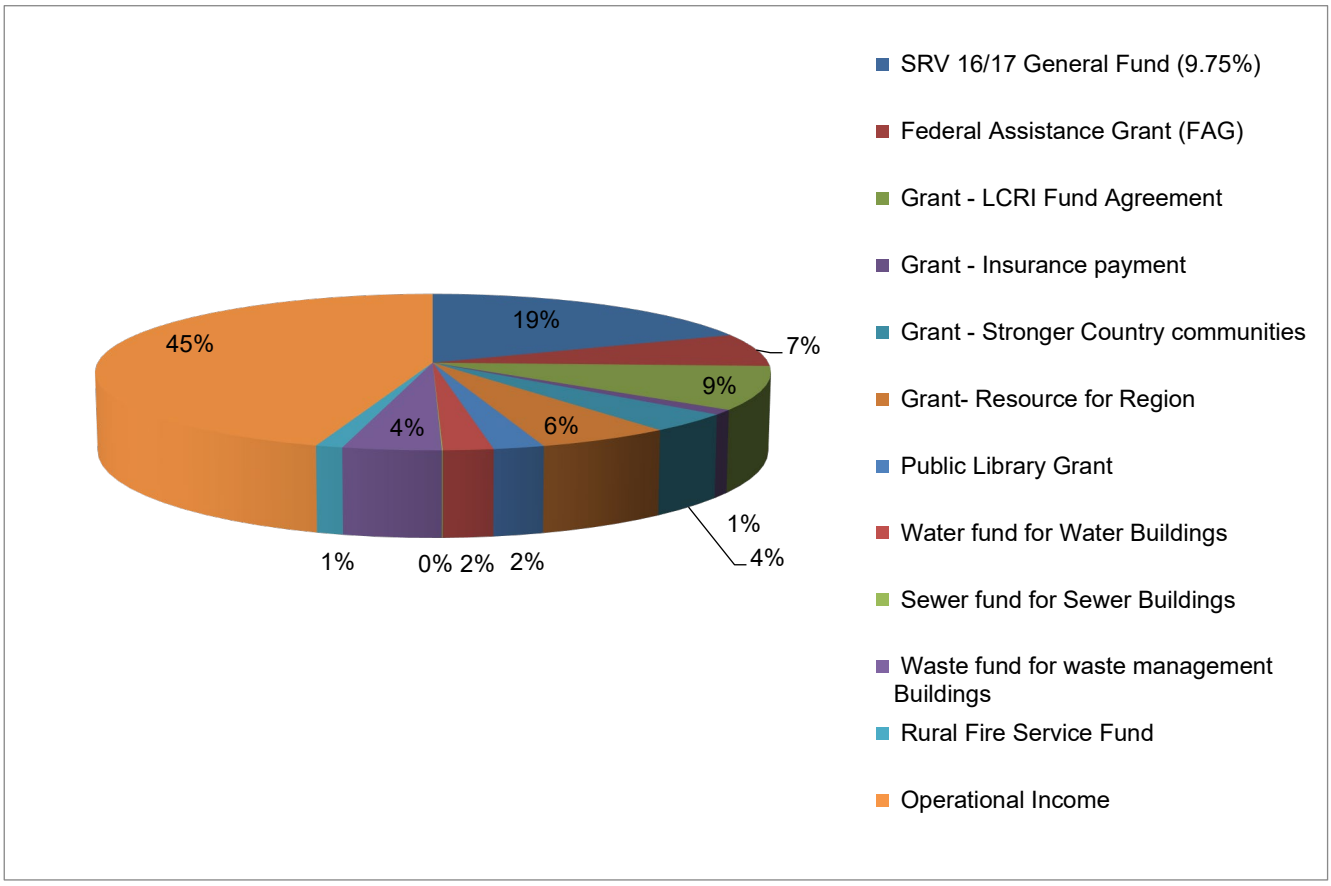
A summary of the funding requirements over the next 10 years is included in **Appendix D**, with the projected budget amounts being based on 2021 dollars increased for growth by 0.9% per annum.

Funding for management of assets can come from a variety of sources as detailed in the table below.

Table 11.1: Where does our Income come from ($,000)

Item	Budget – Average over the 10 Years
SRV 16/17 General Fund (9.75%)	442
Federal Assistance Grant (FAG)	158
Grant - LCRI Fund Agreement	210
Grant - Insurance payment	24
Grant - Stronger Country communities	89
Grant- Resource for Region	135
Public Library Grant	51
Water fund for Water Buildings	50
Sewer fund for Sewer Buildings	1
Waste fund for waste management Buildings	99
Rural Fire Service Fund	27
Operational Income	1,052
Total	**2,337**

Figure 11.1: What is the breakup of our income streams



12. Plan Improvements

In addition to the Asset Management Strategy improvements, the following items outline proposed improvements to the way in which building assets are managed. It is expected that this will be an ongoing process, as part of good asset management practice is to continually review and improve the methodology used.

Also, there is a general improvement plan in place for asset management framework PM20_80014 - Asset Management Framework Improvement plan.

Table 12.1 How will we improve our AMP

Plan Improvement	Timeframe
Develop catalogue for renewal unit rates for building components	June 2022
Updating condition assessment manual	February 2022
Finalising strategic modelling of building asset class	June 2022
Develop register and management plan for asbestos in buildings	June 2022
Updating and adding condition of assets against financial attribute (CVR)	June 2022
Check financial coding of CVR and relocate the assets to the appropriate category	June 2022
Developing planned maintenance program	June 2023
Ongoing maintenance of asset register	On going

It must be noted that these items are part of a continual process and need to be reviewed on a yearly basis as to progress and validity.

13. Risk Management Plan

Council is committed to the identification and elimination, or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan is being re-developed which includes the management of risks for each of its assets. From this Plan the following key Risks have been identified: Full risk register of Infrastructure Services can be viewed at CM9 record 18/8934

The key Risks identified in this Plan are summarised in the following **Table 13.1**.

Table 13.1 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
failure of critical asset in the building asset class	injury/fatality damage to reputation loss of amenity for community litigation loss of service	9	Defining level of service Ongoing monitoring of condition of assets

One of the outcomes of this assessment is the determination of **Critical Assets.** Critical assets are specific assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenances activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Criticality can be assessed by applying broad assumptions about the implications of failure, for example, whether the non-availability of an asset would have a significant impact on the local or possibly the national economy. Using this approach, simple criteria can be defined to assess the loss of service. For example, the loss of use of a Building asset may.

- affect or disconnect specific parts of a community,
- affect businesses of different sizes and significance, and
- affect specific numbers of users.

Table 13.2 Criticality Ranking

Asset Class	Asset Category	Criticality Ranking	Criticality Definition
Building			
	Building Community-operational		
		Very High (4)	Loss of building would cause **significant** disruption. These would include emergency services, Council administration and water and sewer treatment plants and buildings for emergency evacuation purposes.
		High (3)	Loss of building would cause **some** disruption. These include childcare services, library, waste management centre (tip).
		Medium (2)	Loss of building would cause **minor** impact. Regional Livestock Market, amenities, sporting clubhouses and amenities.
		Low (1)	Loss of building would have **virtually no** impact (would not be replaced). These include disused buildings or storage sheds with no worth.

The identification of critical building assets is identified in **Table 13.3** where there is a potential for failure to risk public safety or property have also been identified as critical.

Table 13.3 Critical Assets & Rankings

Asset Number	Building	Location	Criticality Ranking	Comments
82379	Belford RFS	Amenities (Belford RFS)	4	Information is based on emergency services
82380	Belford RFS	Brigade Shed (Belford RFS)	4	
82382	Bourke Street Sewer Pump Station	Pump House (Bourke St SPS)	4	
82384	Broke Pump Station	Pump House (Broke WPS)	4	
82392	Broke RFS	Brigade Shed (Broke RFS)	4	
82400	Bulga RFS	Brigade Shed (Bulga RFS)	4	

Asset Number	Building	Location	Criticality Ranking	Comments
82405	Carrowbrook RFS	Brigade Shed (Carrowbrook RFS)	4	
82409	Civic Park	Amenities (Civic Park)	4	
82414	Control Valve No.1	Valve House (No.1 Control)	4	Water treatment
82416	Control Valve No.2	Valve House (No.2 Control)	4	
82418	Control Valve No.3	Valve House (No.3 Control)	4	
82420	Darlington RFS	Brigade Shed (Darlington RFS)	4	
82424	Dulcamah Pump Station	Pump House (Dulcamah WPS)	4	
82430	Dunolly Water Pump Station	Pump House (Dunolly WPS)	4	
82432	Glendon Brook RFS	Brigade Shed (Glendon Brook RFS)	4	
82434	Glennies Creek Dam Chlorination Plant	Plant Building (Glennies Chlorination Plant)	4	
82436	Glennies Creek Dam Water Pump Station	Pump House (Glennies Creek WPS)	4	
82438	Glennies Creek RFS	Brigade Shed (Glennies Creek RFS)	4	
82440	Gowrie Reservoir Chlorination Plant	Plant Building (Gowrie Chlorination Plant)	4	
82451	Howes Valley RFS	Brigade Shed (Howe Valley RFS)	4	
89758	Howes Valley RFS	Amenities (Howe Valley RFS)	4	
82453	Hunter Valley Fire Control Centre	Muster Area and Breezeway (HV Fire Control)	4	
82454	Hunter Valley Fire Control Centre	Training Room (HV Fire Control)	4	
82455	Hunter Valley Fire Control Centre	Vehicle Shed (HV Fire Control)	4	
82456	Hunter Valley Fire Control Centre	Workshop (HV Fire Control)	4	
82457	Hunter Valley Fire Control Centre	Admin Building (HV Fire Control)	4	

Asset Number	Building	Location	Criticality Ranking	Comments
82464	Jerrys Plains RFS	Amenities (Jerrys Plains RFS)	4	
82465	Jerrys Plains RFS	Brigade Shed (Jerrys Plains RFS)	4	
82466	Jerrys Plains RFS	Brigade Shed - Old (Jerrys Plains RFS)	4	
82467	Jerrys Plains RFS	Storage Shed (Jerrys Plains RFS)	4	
82469	Jerrys Plains Water Pump Station	Pump House (Jerrys Plains WPS)	4	
82474	Kelso Street Sewer Pump Station	Pump House (Kelso Street SPS)	4	
82499	Mt Dyrring Communications Tower	Shed (Mt Dyrring Communications Tower)	4	
82501	Mt Thorley Chlorination Plant	Plant Building (Mt Thorley Chlorination Plant)	4	
82503	Naleen Pump Station	Pump House (Naleen WPS)	4	
82507	Obanvale Water Treatment Plant	Generator Shed (Obanvale WTP)	4	Water treatment
82508	Obanvale Water Treatment Plant	Plant Building (Obanvale WTP)	4	
82510	Ourcare / HACC	Main Building (Ourcare / HACC)	4	
82512	PAC Plant	Plant Building (PAC Plant)	4	
82514	Putty Valley RFS	Brigade Shed (Putty Valley RFS)	4	
82527	Retreat Pump Station	Pump House (Retreat WPS)	4	
82529	RFS Workshop	Brigade Shed (RFS Workshop)	4	
82539	Scotts Flat RFS	Shelter (Scotts Flat RFS)	4	
82540	Scotts Flat RFS	Amenities (Scotts Flat RFS)	4	
82543	Scotts Flat RFS	Brigade Shed (Scotts Flat RFS)	4	
82545	Scotts Flat RFS	Training Room (Scotts Flat RFS)	4	

Asset Number	Building	Location	Criticality Ranking	Comments
82542	Scotts Flat (Stanhope) RFS	Amenities (Stanhope RFS)	4	
82544	Scotts Flat (Stanhope) RFS	Brigade Shed (Stanhope RFS)	4	
82547	Sedgefield Cemetery	Amenities (Sedgefield Cemetery)	4	
82552	SES	Admin Building (SESI)	4	
82553	SES	Store (SES)	4	
82555	Sewerage Treatment Plant	Generator Shed (STP)	4	Sewer treatment
82556	Sewerage Treatment Plant	Hardstand Shed (STP)	4	
82557	Sewerage Treatment Plant	Mower Shed (STP)	4	
82558	Sewerage Treatmant Plant	Office (STP)	4	
82559	Sewerage Treatment Plant	Switch Room (STP)	4	
82577	Singleton Heights Indoor Sports Centre	Sports Centre (Singleton Heights ISC)	4	Supporting EMPLAN
82581	Singleton Library	Main Building (Singleton Library)	4	Supporting heatwave management
82583	Singleton Shire Council & Civic Centre	Admin Building (Civic Centre)	4	Supporting council services
82584	Singleton Shire Council & Civic Centre	Auditorium (Civic Centre)	4	
82592	Stewart McTaggart Reserve	Amenities - Broke RFS (Stewart McTaggart)	4	
82600	Water Works Lane Depot	Depot Office (Water Works Lane)	4	
82601	Water Works Lane Depot	Storage Shed (Water Works Lane)	4	
82602	Water Works Lane Depot	Wax Plant (Water Works Lane)	4	
82604	Whittingham RFS	Amenities (Whittingham RFS)	4	
82605	Whittingham RFS	Brigade Shed (Whittingham RHS)	4	

Asset Number	Building	Location	Criticality Ranking	Comments
82607	Works Depot	Building Maintenance Shed (Works Depot)	4	Supporting EMPLAN
82608	Works Depot	Lunchroom / Amenities (Works Depot)	4	
82609	Works Depot	Main Store (Works Depot)	4	
82612	Works Depot	Workshop (Works Depot)	4	
89827	Works Depot	Park / Bridge Gang Shed (Works Depot)	4	
89762	McDougall Hill Reservoir	Pump Shed (McDougall Hill Reservoir)	4	

Table 13.4 Building Assets Critical Risks and Treatment Plans

Potential Risk	Risk Rating	Risk Treatment Plan
Destruction by fire	Medium	Regular inspection of all buildings to ascertain adequacy for fire detection systems. Check adequacy of insurance, install fire alarms and develop continuity plans as required.
Structural damage	High	Inspect, monitor and report
Failure to meet Disability Discrimination Act (DDA) requirements and other codes	High	Assess assets and optimise funding
Obsolescence	Medium	Adopted strategic planning to ensure replacement plans & timings are appropriate.
Damage by vandals	Medium	Regular inspection of all buildings to ascertain adequacy for security systems. Check adequacy of insurance.
No alternative building arrangements	High	Develop a robust Business Continuity Plan (BCP) and update it regularly to ensure relevance. Have formal arrangements in place with owners of alternative buildings.

Appendix A: Maintenance Programs

To enable an analysis of the building stock owned and managed by Council, buildings have been grouped into one of 9 categories as follows, with the buildings that match this Sub-Group:

Table 14.1 Building asset groups

Asset Group	Asset Sub-Group	Building	Building Classification
COMMUNITY	RECREATION	Alroy Oval	D
		Broke Recreation Ground	D
		Bulga Recreation Ground	D
		Dunolly Football Ground	D
		Howe Park	D
		Jerrys Plains Recreation Ground	D
		Rose Point / Cook Park	D
		Singleton Gym and Swim	D
		Singleton Heights Indoor Sports Centre	D
		Stanhope Tennis Clubhouse	D
		Jim Johnstone Reserve	D
		Jerrys Plains Pony Club	D
	PUBLIC TOILETS (Amenities)	Allan Bull Reserve	B
		Broke Recreation Ground	B
		Bulga Recreation Ground	B
		CBD - Ryan Ave	B
		Civic Park	B
		Heuston Lookout	B
		Jim Johnstone Reserve	B
		McNamara Park	B
		Nowlan Park	B
		Rose Point / Cook Park	B
		Sedgefield Cemetery	B
		Stewart McTaggart Reserve	B
		Townhead Park	B
		Victoria Square	B
		Jerrys Plains Recreation Ground	B
		Burdekin Park	B
		Riverside Park	B
	COMMUNITY	Singleton Library	A
		Albion Park	B
		Bulga Recreation Ground	B
		Burdekin Park - Music Shell	B
		Singleton Historical Museum	B

		Mechanics Institute	B
		Men's Shed	D
		Ourcare / HACC	D
		Senior Citizens Centre	D
		Singleton Heights Community Centre	D
		Civic Centre - Auditorium	A
		Singleton Youth Venue	A
OPERATIONAL	ADMINISTRATION (OR COUNCIL OPERATIONS)	Lake St Clair	A
		Singleton Shire Council & Civic Centre	A
		Visitors Information and Enterprise Centre	A
		Lake St Clair	A
		Colleen Gale Child Care Centre	A
		Singleton Council Out of School Hours Care	A
	WORKSHOP/STORAGE (OR COUNCIL OPERATIONS)	Works Depot	C
		Dog Pound	C
		Works Depot	C
	WASTE MANAGEMENT	Landfill Site	B
		Bufferland Site	B
		Sewerage Treatmant Plant	B
		Broke Pump Station	B
		Control Valve No.1 (near pinnacle)	B
		Control Valve No.2 (near railway corridor)	B
		Control Valve No.3 (near substation)	B
		Dulcamah Pump Station	B
		Dunolly Water Pump Station	B
		Glennies Creek Dam Chlorination Plant	B
		Glennies Creek Dam Water Pump Station	B
		Gowrie Reservoir Chlorination Plant	B
		Jerrys Plains Water Pump Station	B
		Judan Raw Water Pump Station	B
		McDougall Hill Reservoir	B
		Mt Thorley Chlorination Plant	B
		Mt Thorley Raw Water Pump Station	B

		Naleen Pump Station	B
		Obanvale Water Treatment Plant	B
		PAC Plant	B
		Retreat Pump Station	B
		Water Works Lane Depot	B
	COMMERCIAL	47 Glendon Road	D
		Bufferland Site	D
		Landfill Site	D
		Animal Management Facility	D
		Regional Livestock Market	D
		Riverside Park	D
		Parkview Café	D
		189-195 John St	C
	EMERGENCY SERVICES	Belford RFS	D
		Broke RFS	D
		Bulga RFS	D
		Carrowbrook RFS	D
		Darlington RFS	D
		Glendon Brook RFS	D
		Glennies Creek RFS	D
		Howes Valley RFS	D
		Hunter Valley Fire Control Centre	D
		Jerrys Plains RFS	D
		Mt Dyrring Communications Tower	D
		Mt Royal RFS	D
		Putty Valley RFS	D
		RFS Workshop	D
		Scotts Flat (Stanhope) RFS	D
		Scotts Flat RFS	D
		SES	D
		Whittingham RFS	D

Until recently, indications of desired levels of service were obtained from various sources including residents' feedback to Councillors and staff, service requests and correspondence.

Council's approach to the Building Asset Management Plan is driven by what it takes to provide acceptable, accessible and functional building assets to support the delivery of Council's services to the community.

Development of the levels of service considers the following:

1. Council has established key services that are delivered to the community via its building asset portfolio. These services form the basis of funding objectives and the program of

works for each building. This describes both the current state of assets and services and Council's vision for future services and assets.

2. Council will establish and document 'acceptable levels' at which these services may be provided. These levels will form the basis for future resource levels.

3. The agreed levels of service are used to determine the:

   - Standard of new building assets and their functional features.
   - Upgrade requirements for existing assets.
   - Minimum maintenance requirements for existing assets, so that service levels are met.
   - Response times to requests for maintenance (e.g. leaky toilets)

4. Strategies are being developed considering:

   - Financial resources required for the short-term and the long-term to meet the target service levels.
   - Condition monitoring of building assets to manage the physical state and the serviceability potential of the assets.
   - Critically monitoring building assets to develop prioritisation mechanisms that will enable Council to target funds more appropriately.
   - Resource allocation to meet service level targets.

The monitoring and review process is intended to regularly improve the quality of information, strategies, and associated plans.

In the development of Levels of Service (LOS) there are two distinct groupings to be used. The first relates to programmed works and relates to maintenance service levels undertaken on a routine (Proactive) basis. The second pertains to reactive maintenance (Reactive) including response to storm damage, vandalism etc.

Maintenance Service Levels (MSL) (Proactive)

It has been the practice in the past for maintenance activities to generally involve a cyclical approach to routine works, combined with the need from time to time to respond to specific buildings suffering particular deterioration. This can result in buildings which receive the greatest use or which have the least serviceable integrity receiving the most maintenance effort.

This reactive approach to maintenance can mean that some buildings are left for lengthy periods without maintenance attention and in some cases left to gradually deteriorate to levels which are past the point of being restorable to a satisfactory level of service with normal maintenance type of activity.

To rationally allocate maintenance effort to individual buildings requires the establishment of a relationship between the relative function of the building within the building portfolio, the service level that the building should provide, and the maintenance effort required to maintain that service level. The structural building hierarchy (class) provides a basis upon which to establish this relationship and the recommended hierarchy facilitates that process.

Response Service Levels (Reactive)

Given the nature of the buildings, issues will continually arise that require a reactive response. Defining the proposed levels of service for reactive responses provides measurable performance criteria and outlines the target response times to our customers. The recommended LOS is as follows:

- All works requests relating to the operation of toilets, power, gas, lighting, operation of hot water systems, heating or cooling units, water intrusion into ceilings or building structural integrity will be actioned within a suitable timeframe in relation to the type of building, the building classification and what the building services.
- All works requests regarding damage to the mains pressure water supply, firefighting equipment, safety concerns or loss of integrity of the security of the building should be actioned as soon as possible.
- Requests relating to the, floor surface failure, termites and vermin, to be investigated according to Council's Customer Charter.
- All other written requests / enquiries will be responded to on a priority basis or in order of receipt. Whilst it is not always possible for the response to be in full, an acknowledgement listing the action to be taken, if any, and the name and telephone number of the officer dealing with the matter will be provided.
- Telephone and counter requests / enquiries will be handled promptly and where information is not readily available, verbal enquiries will be answered on a priority basis or in order of receipt.

The MSL will depend on the building classification. These classes address the minimum requirements that Council buildings must meet to ensure that all contractual, regulatory and employment responsibilities are adequately covered.

Scheduled Maintenance

Preventative maintenance activities are essential to the protection of the fabric of a building, or are activities required to meet compliance and regulatory standards for continued occupation of a building. Routine maintenance tasks will be undertaken on building class as follows:

- Cleaning Tender

Strikeforce is Council's current cleaning contractor. The contract follows a set agreement as per the contract No. T2018.024. This contract will include the regular cleaning of buildings and facilities at thirty 30 sites owned by Singleton Council. The Service Provider is required to perform cleaning services within the time frames on each of the days outlined in **Table 14.2**.

Table 14.2 Cleaning Frequencies, Days and Times

Ref No.	Building Name	Cleaning Frequency	Cleaning Days							Cleaning Times	
		(visits per week)	M	Tu	W	Th	F	Sa	Su	Between	
B	Administration building	5	✓	✓	✓	✓	✓	✗	✗	10:00pm	7:00am
C	Auditorium	5	✓	✓	✓	✓	✓	✗	✗	6:00pm	7:00am
D	Singleton Library	5	✓	✓	✓	✓	✓	✗	✗	7:00pm	7:00am
E	Singleton VIEC	7	✓	✓	✓	✓	✓	✓	✓	6:00pm	7:00am
F	Depot Offices and Facilities	5	✓	✓	✓	✓	✓	✗	✗	3:00pm	6:00am
G	Senior Citizens Centre	1	✓	✗	✗	✗	✗	✗	✗	5:00pm	7:00am
H	Colleen Gale Children's Centre	5	✓	✓	✓	✓	✓	✗	✗	6:00pm	6:00am
I	Youth Venue	2	✗	✗	✓	✗	✓	✗	✗	6:00pm	6:30am
J	OOSH	5	✓	✓	✓	✓	✓	✗	✗	6:00pm	6:00am
K	Waste Depot Office and Amenities	1	✗	✗	✗	✗	✓	✗	✗	6:00pm	6:00am
L	Toilets, Singleton Township	6	✓	✓	✓	✓	✓	✗	✓	8:00pm	6:00am
M	BBQ facilities, Singleton Township	2	✓	✗	✗	✗	✓	✗	✗	6:00am	6:00pm
N	Toilets, Regional	2	✓	✗	✗	✗	✓	✗	✗	6:00pm	6:00pm
O	BBQ facilities, Regional	2	✓	✗	✗	✗	✓	✗	✗	6:00am	6:00pm
P	Water Works Depot	1	✗	✓	✗	✗	✗	✗	✗	3:00pm	12:00am
Q	Water Treatment Plant	1	✗	✗	✗	✗	✓	✗	✗	3:00pm	12:00am
R	Sewerage Treatment Plant	1	✗	✗	✗	✗	✓	✗	✗	3:00pm	12:00am

Alarm Monitoring and Security

Singleton Council currently has 49 facilities within the LGA that are covered by the contract. The Security provider Balanced Security provides monitoring and security patrols to these. Between Balanced Security and Council an agreed level of service has been adopted for the monitoring and patrolling of these sites.

The tender was awarded for a period of 3 years from 1 January 2021 with a provision for 2 x 12 month extensions based on satisfactory supplier performance. Balanced Security undertakes the following services on the facilities identified within the Scope of Services listed in the tender.

This includes -

- Security patrols and/or monitoring
- Security patrols only
- Monitoring and patrols on alarms only
- Fire alarm and duress monitoring
- Cash collections
- Alarm maintenance

Recommended Maintenance Levels of Service

Regular building maintenance will be actioned on the criteria for each building class detailed in **Table 7.1** to ensure the condition of infrastructure is maintained, the following maintenance activities are included.

Condition of infrastructure

- Electrical System working properly
- Adequate lighting for all work stations
- Emergency exit lights working
- Air Conditioning/heating/cooling working
- Hot water systems working
- No leaking taps
- Toilets in working order
- Telephone and computer systems working
- Safe entry and egress to and from the building
- Floor free of trip / slip hazards
- All blinds/sun control devices working properly
- No water leaks into the building form guttering and roof system
- No vermin
- Fire service and detection system operational
- Mechanical system operational
- Security system maintained in good order
- Kitchens maintained in a hygienic standard

Additional Maintenance Level of Service Options

- No “piggy-back” electrical cords and connections
- Exterior lights working
- Mechanical components installed in building kept in good order
- Air vents correctly aligned and calibrated for air flow
- Air conditioning filters clean
- All trees cut clear of roofing and building
- All paving kept level
- Clear entry to delivery access.

- All stair nosings in good order
- Identified hazards rectified as soon as possible

Appendix B: Renewals

Building Envelope ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Colleen Gale - Building Assessment	Condition		188,700			188,700
Burdekin Park - Replacement of amenities	Strategy	240,000				240,000
Building assessment - Audit structural assessment (condition 4-5)	Condition			50,000		50,000
Townhead Park - Amenities Upgrade/ Replacement	LoS	300,772				300,772
James Cook Park - Increase AFL Clubhouse and capacity for female members	LoS				300,000	300,000
Library - External Painting	Condition	96,300				96,300
Jerrys Plains Water Pump Station Upgrade	Condition		80,000			80,000
Water & Sewer - Warkworth Raw Water - Doors x2 replacement	Condition	20,000				20,000
Sewer treatment works - Security gate issues	Condition	10,000				10,000
Water Depot - Demolish old tank shed	Condition	25,000				25,000
Water Depot - Repair white ant damage in building	Condition	35,000				35,000
Detailed design of handstand area behind Community Recycling Centre	LoS	50,000				50,000
Detailed design – WMF gatehouse building upgrade/replacement	Condition	50,000				50,000
Construct new gate house	Condition				200,000	200,000
Saleyard Kiosk	Condition		300,000			300,000
Total Funded		**827,072**	**568,700**	**50,000**	**500,000**	**1,945,772**
Unfunded Projects						
Sewer Treatment Works - Roller Door Upgrades	Condition			15,000		15,000
Total Unfunded				**15,000**		**15,000**

Electrical Services ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Library - Exterior/ Interior lighting upgrades		261,000				261,000
Total Funded		**261,000**				**261,000**
Unfunded Projects						
Total Unfunded						

Fire & Security Services ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Security - Key, lock upgrade- Remaining buildings				85,000		85,000
Water treatment plant - Security gate		80,000				80,000
Security - Key, lock upgrade- Admin and water& Sewer	tba	85,000				85,000
Total Funded		**165,000**		**85,000**		**250,000**
Unfunded Projects						
Security - Key, lock upgrade- Clubhouses and sports fields			85,000			85,000
Total Unfunded			**85,000**			**85,000**

Fit Out ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Library - Internal plywood ceiling replacement	Mandate	181,000				181,000
Gym and Swim - Mechanical Audit	LoS		40,000			40,000
Gym and Swim - Sand filter bed improvements	Condition			200,000		200,000
Dunolly Rugby League Ground - Clubhouse Upgrade	Condition		1,600,000			1,600,000
Youth Venue - Stage improvements with disability ramp	Strategy		30,000			30,000
Mechanical Institute - Upgrade of building	Condition		90,000			90,000
Total Funded		**181,000**	**1,760,000**	**200,000**		**2,141,000**
Unfunded Projects						
Singleton Heights Sports Centre - Kitchen improvements	LoS			15,000		15,000
Total Unfunded				**15,000**		**15,000**

Floor Finish ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Senior Citizen - Upgrade flooring and internal walls	Condition		60,000			60,000
Total Funded			**60,000**			**60,000**
Unfunded Projects						
Administration - Carpet replacement	Condition				300,000	300,000
Total Unfunded					**300,000**	**300,000**

Mechanical Services ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Library – Air conditioning upgrade	Condition		$489,500			$489,500
Total Funded			**$489,500**			**$489,500**
Unfunded Projects						
Administration -Air conditioning replacement	Condition				$550,000	$550,000
Total Unfunded					**$550,000**	**$550,000**

Roof ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Auditorium - Roof smoke vents replacement	Strategy	100,000				100,000
Administration -Roof improvements and repair (LRCI)	Mandate	420,000				420,000
Bulga Recreation Ground - Replacement of verandah around clubhouse	Condition				50,000	50,000
Auditorium - Roof improvements and repair	Condition				152,500	152,500
OOSH - Roof improvements and replacement of external patio roof	Condition	28,900	304,978			333,878
Water Depot - Replace workshop roof	Condition				35,000	35,000
Total Funded		**548,900**	**304,978**		**237,500**	**1,091,378**
Unfunded Projects						
Library - Upgrade of Roof Anchor Points	Condition			30,000		30,000
Gym & Swim - replacement of pool dome roof (future R4R) [Project B00077]	Condition				3,430,000	3,430,000
Total Unfunded				**30,000**	**3,430,000**	**3,460,000**

Plumbing & Sanitary ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
OOSH - Bathroom upgrade	Condition		50,000			50,000
Total Funded			**50,000**			**50,000**
Unfunded Projects						
Saleyard EPA Compliance	Mandate	160,000				160,000
Total Unfunded		**160,000**				**160,000**

Site Features ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Auditorium - replacement of fibro asbestos sheeting in forecourt pergola	Condition	72,000				72,000
Youth Venue - Entry Beautification and retaining wall Improvements	Condition		25,000			25,000
Gym and Swim - Perimeter Fence replacement including disability contrast for emergency exits	Condition			100,000		100,000
OOSH - Fence and retaining wall replacement	Condition		90,000			90,000
OOSH - Softfall replacement	Condition		35,000			35,000
Colleen Gale - Playground continuation and softfall repairs	LoS	30,000				30,000
Lake St Clair - Lower amenity block upgrade to improve access and disability use (buildings)	Strategy				100,000	100,000
Water & Sewer - Warkworth Raw Water - Staircase access dangerous and erosion	Condition	40,000				40,000
Investigate buffer land management requirements (access tracks, fire breaks, fencing etc.)	Mandate	15,000				15,000
Legacy landfill site investigation/planning	Mandate	50,000				50,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Investigate and implement WMF wash bay water mgt. improvements	Mandate		30,000			30,000
Total Funded		**207,000**	**180,000**	**100,000**	**100,000**	**587,000**
Unfunded Projects						
Total Unfunded						

Appendix C: Upgrade / New Capital Works Program ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Funded Projects												
James Cook Park - New Athletics Clubhouse	Strategy		1,107,036									1,107,036
Auditorium - Storage improvements and upgrades - Construct	LoS										400,000	400,000
Auditorium - Appropriate disability access to the stage	Strategy					25,000						25,000
Auditorium - Forecourt Beautification Project	Mandate	132,283										132,283
Administration - Disability bathroom - Design only	Strategy		50,000									50,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Administration - Council Chambers access improvements with ramp to Mayor area	Strategy								25,000			25,000
Administration - Improvements to Customer Service area for disability access	Strategy			75,000								75,000
Works Depot - Design of area to include Water and Sewer	LoS		100,000									100,000
Mirannie RFS - New Fire Shed	LoS				270,000							270,000
Construction of additional waste drop off areas	LoS	100,000										100,000
Install weighbridge boom gates	LoS	50,000										50,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Electricity supply review and install Solar PV system/s @ WMF	LoS	50,000										50,000
Investigate Waste Management Facility Fern Gully Road Closure and purchase land	Strategy	20,000										20,000
Fencing Fern Gully Rd land acquisition	LoS	20,000										20,000
Construction of handstand area behind Community Recycling Centre	LoS				200,000							200,000
Auditorium - Café upgrades and glass partition [Project B00076]	LoS					100,000						100,000
Total Funded		**372,283**	**1,257,036**	**75,000**	**470,000**	**125,000**			**25,000**		**400,000**	**2,724,319**

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Unfunded Projects												
Administration - Disability bathroom - Construct	Strategy				500,000							500,000
VIEC - LED lighting adding	LoS				125,000							125,000
Burdekin Park - Accessible ramp to the music shell and landscaping (Buildings)	Strategy				50,000							50,000
Singleton Heights Sports Centre - Disability emergency access	Strategy			70,000								70,000
Works Depot upgrade to include Water and Sewer	Mandate				13,000,000							13,000,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
189-195 John St - Old Sutton Ford Building - Remove asbestos and refurbish site [Project B00053]	Condition						100,000					100,000
Singleton Heights Community Hub	Strategy										1,900,000	1,900,000
Total Unfunded				**70,000**	**13,675,000**		**100,000**				**1,900,000**	**15,745,000**

Appendix D: 10 year Financial Plan (2021 $,000)

Item	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Average
Income											
SRV 16/17 General Fund (9.75%)	(354)	(385)	(185)	(393)	(350)	(1,070)	(90)	(940)	(150)	(500)	(442)
Federal Assistance Grant (FAG)	(161)	(35)	(115)	(220)	0	0	(350)	0	0	(700)	(158)
Grant - LCRI Fund Agreement	(721)	(1,382)	0	0	0	0	0	0	0	0	(210)
Grant - Insurance payment	(240)	0	0	0	0	0	0	0	0	0	(24)
Grant - Stronger Country communities	(118)	(774)	0	0	0	0	0	0	0	0	(89)
Grant- Resource for Region	0	(1,345)	0	0	0	0	0	0	0	0	(135)
Public Library Grant	(269)	(240)	0	0	0	0	0	0	0	0	(51)
Water fund for Water Buildings	(285)	(80)	(50)	(35)	(50)	0	0	0	0	0	(50)
Sewer fund for Sewer Buildings	(10)	0	0	0	0	0	0	0	0	0	(1)
Waste fund for waste management Buildings	(405)	(30)	0	(400)	0	0	(150)	0	0	0	(99)
Rural Fire Service Fund	0	0	0	(270)	0	0	0	0	0	0	(27)
Operational Income	(934)	(1,353)	(1,132)	(982)	(1,036)	(1,012)	(902)	(1,073)	(1,095)	(1,001)	(1,052)
Total Income	**(3,497)**	**(5,623)**	**(1,482)**	**(2,299)**	**(1,436)**	**(2,082)**	**(1,492)**	**(2,013)**	**(1,245)**	**(2,201)**	(2,337)
Operations											
Recreation	38	38	39	40	41	42	42	43	44	45	41
Amenities	74	75	77	78	80	81	83	85	86	88	81
Community Buildings	26	26	27	27	28	28	29	29	30	31	28
Administration	75	76	78	79	81	82	84	86	87	196	92
Council Operations	196	200	204	208	212	217	221	225	230	11	193
Commercial	13	13	14	14	14	14	15	15	15	16	14
Youth Venue	21	21	22	22	22	23	23	24	24	25	23

Colleen Gale	35	36	37	38	38	39	40	41	41	42	39
Library	76	78	79	81	83	84	86	88	89	91	84
S.E.S.	1	1	1	1	1	1	1	1	1	2	1
Bushfire Claimable-RFS	38	39	39	40	41	42	43	43	44	45	41
Visitor Information Centre	40	41	42	43	44	44	45	46	47	48	44
Waste Management Building- Residential	3	3	3	3	3	3	3	3	3	3	3
Waste Management Facility	5	5	5	5	5	5	5	5	6	6	5
OOSH	23	24	24	25	25	26	26	27	27	28	25
Total Operations	**663**	**676**	**690**	**704**	**718**	**732**	**747**	**762**	**777**	**676**	715
Maintenance											
Recreation	33	33	34	35	35	36	37	38	38	39	36
Amenities	60	61	63	64	65	66	68	69	70	72	66
Community Buildings	21	21	22	22	23	23	24	24	25	25	23
Administration	36	36	37	38	38	39	40	41	42	42	39
Council Operations	5	5	5	6	6	6	6	6	6	6	6
Commercial	12	12	12	12	13	13	13	14	14	14	13
Youth Venue	7	7	7	7	7	8	8	8	8	8	8
Colleen Gale	6	7	7	7	7	7	7	7	8	8	7
Library	20	20	20	21	21	22	22	23	23	24	22
S.E.S.	4	4	5	5	5	5	5	5	5	5	5
Bushfire Claimable-RFS	27	28	28	29	29	30	30	31	32	32	30
Visitor Information Centre	19	20	20	21	21	21	22	22	23	23	21
Waste Management Building- Residential	2	2	2	2	2	2	2	2	2	2	2
Waste Management Facility	6	6	6	6	6	6	6	6	6	7	6
Water Treatment - Singleton	1	1	1	1	1	1	1	1	1	1	1
Water Pump Stations	3	3	3	3	3	3	3	3	3	3	3
Water Pump Station - Mount Thorley Raw	0	0	0	0	0	0	0	0	0	0	0

Water Works Lane Depot	0	0	0	0	0	0	0	0	0	0	0
Sewer Pumping Stations	0	0	0	0	0	0	0	0	0	0	0
OOSH	10	10	10	10	10	10	11	11	11	11	10
Total Maintenance	**271**	**277**	**282**	**288**	**294**	**299**	**305**	**312**	**318**	**324**	297
Renewals											
Building Envelope	827	569	50	500	50	500	350	855	150	800	465
Electrical Services	261	0	0	0	0	0	0	0	0	0	26
Fire and Security Services	165	0	85	0	0	0	0	0	0	0	25
Fit out	181	1,760	200	0	0	400	0	0	0	0	254
Floor Finish	0	60	0	0	0	150	0	0	0	0	21
Mechanical Services	0	490	0	0	250	0	0	0	0	0	74
Plumbing and Sanitary	0	50	0	0	0	0	0	25	0	0	8
Roof	549	305	0	238	0	0	0	0	0	0	109
Site Feature	207	180	100	100	0	0	90	35	0	0	71
Total Renewal	**2,190**	**3,413**	**435**	**838**	**300**	**1,050**	**440**	**915**	**150**	**800**	1,053
Upgrade / Expansion											
Building Envelope	0	1,207	0	470	0	0	0	0	0	400	208
Electrical Services	50	0	0	0	0	0	0	0	0	0	5
Fit Out	0	0	75	0	125	0	0	25	0	0	23
Plumbing and Sanitary	0	50	0	0	0	0	0	0	0	0	5
Roof	100	0	0	0	0	0	0	0	0	0	10
Site Features	222	0	0	0	0	0	0	0	0	0	22
Total Upgrade / Expansion	**372**	**1,257**	**75**	**470**	**125**	**0**	**0**	**25**	**0**	**400**	272
Total Expenditure	**3,497**	**5,623**	**1,482**	**2,299**	**1,436**	**2,082**	**1,492**	**2,013**	**1,245**	**2,201**	**2,337**

ASSET MANAGEMENT PLAN

DRAINAGE

SINGLETON COUNCIL

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Document Control					
Rev No	**Date**	**Revision Details**	**Author**	**Verifier**	**Approver**
1	24/08/2021	Draft	NK	ML	DM

1. Executive Summary

Council's intention is to provide a stormwater network that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The urban and rural stormwater network had a fair value of **$81.26 million** on the 30 June 2020

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can used in the determination of levels of service and funding required. The following table identifies the asset categories in this plan, the ten (10) year average costs and funding gap if one exists. Figure 1.1 indicates the proposed expenditure over the next 10 years based on current (2021) dollars.

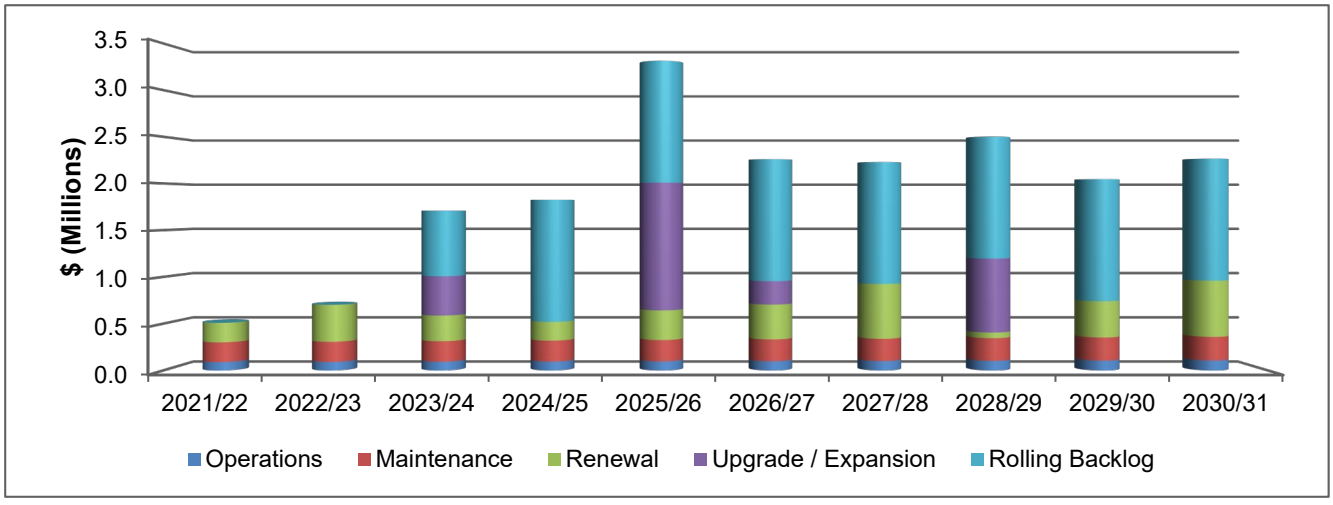
Table 1.1: Drainage Asset Portfolio Overview (2021 $,000)

Asset	Fair Value	Replacement Cost	Operation & Maintenance	Renewal	Upgrade & New	Funding Gap	Backlog Year 1	Backlog Year 10
Drainage Pit	7,074.4	8,499.8		-	-	-	-	-
Drainage pipe	25,360.3	30,130.0	193	286	283	131	0	1,305
Culvert	26,956.3	31,842.6	130	43	-	-	-	-
Headwall	7,739.0	9,535.7	0	8	-	-	-	-
Stormwater Quality Improvement Device	8,173.6	6,114.9	0	-	-	-	-	-
Flood Mitigation	27.1	37.8	7	3	-	-	-	-
Open Drains	5,930.0	3,767.5			-	-	-	-
Other								
Total	**81,260.6**	**89,928.1**	**330**	**340**	**283**	**131**	**0**	**1,305**

1. The funding gap is the average annual gap over the 10-year plan

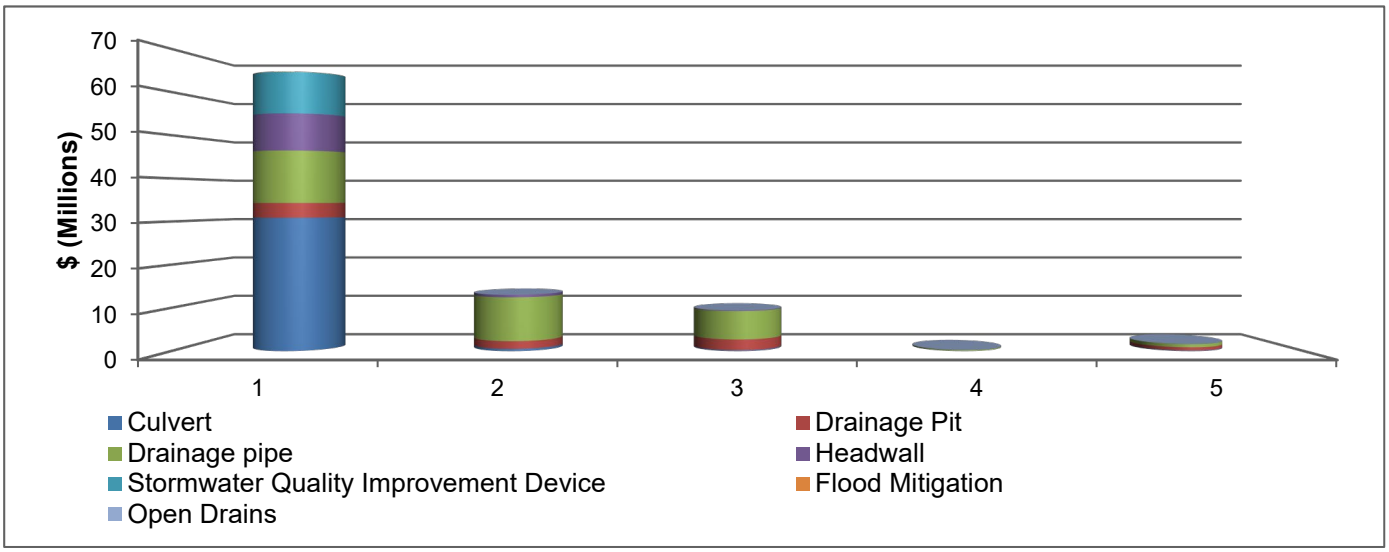
The following figure identifies the proposed expenditure over the next 10 years.

Figure 1.1: What will we spend over the next 10 years in current dollars (2021 $,000)



The current condition of our assets is shown in the following graph based on the value of each asset in each of 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a very poor asset.

Figure 1.2: What condition are our assets in ($,000)



Section 12 contains details of the plan to further improve the details contained in the next Plan.

2. Strategic Objectives

Council operates and maintains the urban stormwater network to achieve the following strategic objectives.

1. Protect private property from flooding from public roads, public reserve areas and neighbouring private property where inter-allotment drainage is installed.
2. Ensure safe and trafficable driving conditions in wet weather to a defined and cost effective level of service.
3. Reduce stormwater pollution through community education and the provision of appropriate water quality improving infrastructure
4. Ensure that these assets are managed to deliver the requirements of Council's Asset Management Policy and Strategic Asset Management Plan.

The above objectives are consistent with Council's Community Strategic Plan strategies under the local government Integrated Planning and Reporting (IP&R) framework:

- Collect and manage urban stormwater effectively
- Manage and reduce risk from environmental pollution and disease
- Infrastructure services, facilities and Council are managed in a financially sustainable way

Council has developed a comprehensive community engagement strategy to ensure a broad range of opinions; ideas and visions were captured to help shape the Singleton Council Community Strategic Plan. The outcomes & strategies supported by that plan are detailed in the Strategic Asset Management Plan.

To assist in the delivery of the objectives in this plan, a number of key documents & systems have been prepared and should be referred to in considering the findings presented:

Table 2.1: Where can I find additional information

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community
Council Asset Policy	How we manage assets
Asset Management Strategy	Overall direction of asset management and portfolio summary
Asset Management Manual	Procedures and Processes that guide the management of assets
2017 Urban Stormwater Drainage Systems Review - Final Report	Review and modelling of urban stormwater drainage capacity
2020 Urban Stormwater Drainage condition assessment report	Review of condition of urban stormwater pipes using limited CCTV inspection

Document / System	Content
Condition Assessment Manual	Details on the process of assessing condition, including photographic examples of various conditions
Enterprise Risk Management Plan	The identification and management of risks across Council operations currently being developed
Asset Management System (Civica Authority)	Electronic system that contains the asset register, condition ratings and used to model future renewals
GIS (Geocortex)	Geographical information system that produces maps of assets
Australian Rainfall and Runoff	Industry standard for stormwater infrastructure design.

3. Services Provided & Classification

Council provides a stormwater network and treatment devices to manage stormwater runoff in the urban areas. Small culverts on rural roads are also considered Drainage assets whereas major culverts or causeways which are accounted for in the Road Infrastructure asset class. The failure of pipes, pits or open channels can be categorised into either structural failure, capacity failure or a combination of both.

The criticality, in relation to structural failure, would be considered extreme if there was an immediate threat to life or property. Highly Critical situations may arise when there is a structural failure of a larger pipeline within a major roadway or adjacent to a building. Lower criticality may be attributed to a smaller pipeline that is located in an urban residential zone that can be easily isolated and repaired. Highly Critical Infrastructure is often located in built up areas, such as the CBD, with failure resulting in major disruption to the community.

Capacity issues can arise whereby the pipeline or channel cannot perform to its designed capacity. This may be due to a number of issues, such as tree root intrusions, sediment or gross pollutant build up, structural failure or influence of other utility services or illegal connections protruding into the pipeline. Capacity issues can also occur where the pipeline is too small to cope with the amount of flow due to increased runoff from changes in land use (eg. urban development). Council has investigated urban stormwater issues to determine where the capacity of pipes in insufficient, see for instance Figure 3.1 below.

Figure 3.1 Example of upgrade recommendation from drainage capacity investigation - Springdale Dr, Singleton (Cardno 2017)

Stormwater drainage is designed according to the 'major/minor' storm philosophy. Minor storms are low intensity, short duration events that occur relatively frequently. The minor drainage system is designed to capture runoff from these events and, in general, convey it underground to a discharge point. In essence the 'minor' system aims to reduce the nuisance

of frequent, low intensity storms by removing runoff from the surface. The ‘minor’ system drainage is designed to cope with up to a 1-in-10 event (the storm that has a 10% chance of being exceeded in any given year), though sometimes a lesser standard of 1-in-5 year is adopted. The underground drainage in the old part of Singleton was built decades ago and may not have been built to such a standard. Runoff from larger storms which exceed the capacity of the minor system are conveyed through the ‘major’ drainage system. The ‘major’ system consists of roadways and natural or artificial open channels that carry overland runoff safely to the discharge point. In some rare cases large size underground pipes may be used to carry the large amounts of runoff from ‘major’ storms if overland paths have insufficient capacity. Typically, the ‘major’ system is designed to cope with large storms up to the 1-in-100 event (a 1% chance of being exceeded in any given year). Events rarer than 1-in-100 are exceptional events and infrastructure to handle these bigger floods are only built in special cases (eg. the levee bank on Hunter River).

Minor rural culverts are designed to convey stormwater from one side of a road to the other using underground pipes or box culverts. This runoff is a combination of water running off the land and from the road surface. Where the amount of runoff is substantial a Major Culvert or Causeway may be used in substitution for a minor culvert (that infrastructure is included in the Roads AMP).

Traditionally a pipe network is classified into trunk drainage and non trunk drainage, with trunk drainage having larger capacity to drain the network. A Trunk drainage system is one that drains a large area and is critical to the overall drainage scheme of a catchment with any type of failure having a larger impact.

The use of detention basins in upstream catchments aids in the reduction of peak flows and can help in reducing the pressure on overloaded systems that may not have been designed to cater for the larger flows.

Council has broadly classified the stormwater network based on criticality. The highest criticality (A) has been allocated to larger pipes (1200 dia and above), as they are often trunk drainage lines and the failure of these pipes would have a higher effect on the community. The second highest classification (B), relates to pipelines between 675 and 1050mm dia. The lowest criticality (C) is allocated to pipes that are less than 600mm diameter as these are often part of a minor drainage catchment and their failure has less potential to cause major disruption to the community.

The stormwater assets had a fair value of $81,260,590 on the 30 June 2020 and details of the major components are contained in Table 3.1 together with their renewal cost.

Table 3.1: What is provided

Classification	Asset	Dimension	Renewal Cost ($)	Fair value based on condition of assets (source: 2019/20 revaluation 20/59197)
Culverts (rural)	Box and circular conduits, headwalls	26.3 km conduit	31,844,434	26,956,258
Headwalls	Headwalls and endwalls and erosion control structures	4,299 headwalls	9,530,719	7,738,972
Flood mitigation	Flood gates	6 flood gates	37,800	27,090
Pipes (urban)	Circular or rectangular conduits	79.6 km *20% 100-300mm* *55% 375-450mm* *17% 500-750mm* *8% 800-1350mm*	29,924,741	25,360,263
Pits (urban)	Kerb and sag pits with and without grates, junction pits	2,933 pits	8,457,190	7,074,380
Stormwater Quality Improvement Devices	Detention basins, rain gardens, gross pollutant traps, swales	41 GPTs 8 rain gardens 10 detention basins 21 swales 1 Dissipator	6,114,850	8,173,621
Open Drains	Formed maintained open channels	6.5km	3,767,480	5,930,000
Total			**89,677,215**	**81,260,585**

4. Levels of Service & Key Performance Measures

One of the basic tenets of sound asset management practice is to provide the level of service the current and future community want and are prepared to pay for, in the most cost effective way (NZ NAMS 2007).

Stormwater assets have been categorised into criticality ratings to assist in the determination of Levels of Service (LOS) which are grouped into:

Community LOS – The Community expects private property to be free of flooding. Community expectation also pertains to levels/widths of flow within gutters as well as pollution and the potential for stormwater harvesting. Rural property owners also expect that access roads will not be made impassable by flooding too frequently or for excessive periods of time such that they are isolated by floodwaters**.**

Technical LOS – Council has set design criteria for the provision of systems to cater for the minor/major storm events, which are in line with the guidelines set out in Australian Rainfall and Runoff. Council also has a maintenance regime which means issues are dealt with under the guidelines of this asset management plan and the asset management manual.

Figure 4.1 Temporary flooding of an urban street in south Singleton after modest rain due to drainage capacity problem, most likely due to blockage (September 2020)

At present parts of the Singleton - such as the villages - do not contain underground stormwater infrastructure. Council has no plans to construct underground urban stormwater drainage in these areas. Upgrades to existing drainage will be considered at locations with known capacity issues for the drainage system. New residential subdivision around Singleton will install new underground drainage as required in development consents.

A challenge for underground drainage particular to Singleton's urban area east of the river is the very flat terrain on which the town was originally built. As the ground is so flat it is difficult to install pipes with the grade required to carry stormwater away at the required rate. Consequences of this are (i) pipes are laid shallow which reduces their hydraulic ability to convey water, (ii) pipes are laid very flat and accumulate sediment rather than being self-cleansing, and (ii) in some parts of urban Singleton there are soak pits or similar devices to infiltrate stormwater into the water table with overflow pits that only carry stormwater once upstream pits are overflowing.

Stormwater assets have been categorised to assist in the determination of Levels of Service (LOS).

i. Community Level of Service

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

ii. Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Function:

- Operations – the regular activities to provide services such as, street sweeping, roadside slashing and vegetation control, signage inspections
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition, e.g., road patching, unsealed road grading, building and structure repairs

Quality:

- Renewal – the activities that return the service capability of an asset up to that which it had originally, e.g., frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement

- Upgrade – 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

Capacity/Utilisation:

- New service – is the activity to provide an asset that did not exist previously e.g., a new library, new kerb and gutter, new safety barriers

Table 4.1: Community Level of Service – Quality

Community Levels of Service						Technical Service level							
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Target Expenditure	Actual Expenditure	Renewals Ratio
Quality	Stormwater	Stormwater drainage assets meet the hierarchy conditions	CRM's & Customer satisfaction			condition of assets > condition 3	96.69%	0.95			$1,181,991	$964,000	81.6%

Table 4.2: Community Level of Service – Function

Community Levels of Service						Technical Service level							
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Required Maintenance	Actual	Maintenance Ratio
Function	Stormwater	Ensure stormwater system meets community Expectations	CRM's			Maintenance standards are meet		95%	Maintenance		$500,809	$209,000	41.73%
		Remove hazards	CRM's			Maintenance standards are meet							
		Routine clearing of drains	CRM's			Maintenance standards are meet							
		Removal of Gross Pollutants	Customer satisfaction			Tonnes of rubbish removed per yr.							

Table 4.3: Community Level of Service – Capacity/Utilisation

Community Levels of Service						Technical Service level						
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Required Maintenance	Actual
Capacity/ Utilisation	Stormwater	Network meets the capacity requirements	CRM's re flooding complaints	reduce by 5%		No of properties impacted by stormwater inundation					$118,199	$112,000

5. Condition of Our Assets

Council undertakes periodic condition assessment of a representative catchment and annual check of above ground assets in poor or very poor condition. Council has a program in place to inspect underground stormwater assets using CCTV to improve knowledge of asset condition. This data is recorded in the Council Asset Management System and used to predict the timing of renewal / maintenance requirements in the Long-Term Financial Plan.

Assets are rated on a 1 (Near New) to 5 (very poor) scale consistent with industry best practice as outlined in the IPWEA International Infrastructure Management Manual. The physical condition of the stormwater infrastructure is assessed using industry standard practice notes published by the Institution of Public Works Engineers Australia (IPWEA). At Singleton Council condition of drainage assets will be assessed as per IPWEA practice note 5.[1]

The underground urban stormwater network serving Darlington, Singleton Heights and Hunterview is generally 30 to 50 years old having been built mainly from the mid-1970s onward as these suburbs developed. Life expectancy of underground drainage infrastructure is in the range of 80 to 100 years. Hence pipes and pits in these suburbs are about halfway through their expected service life. By comparison underground drainage in Singleton east of the river is much older having been installed at least as early as the 1920s. CCTV inspections so far show many of these pipes in the older parts of Singleton are in very poor condition and will require renewal in the near term at considerable cost.

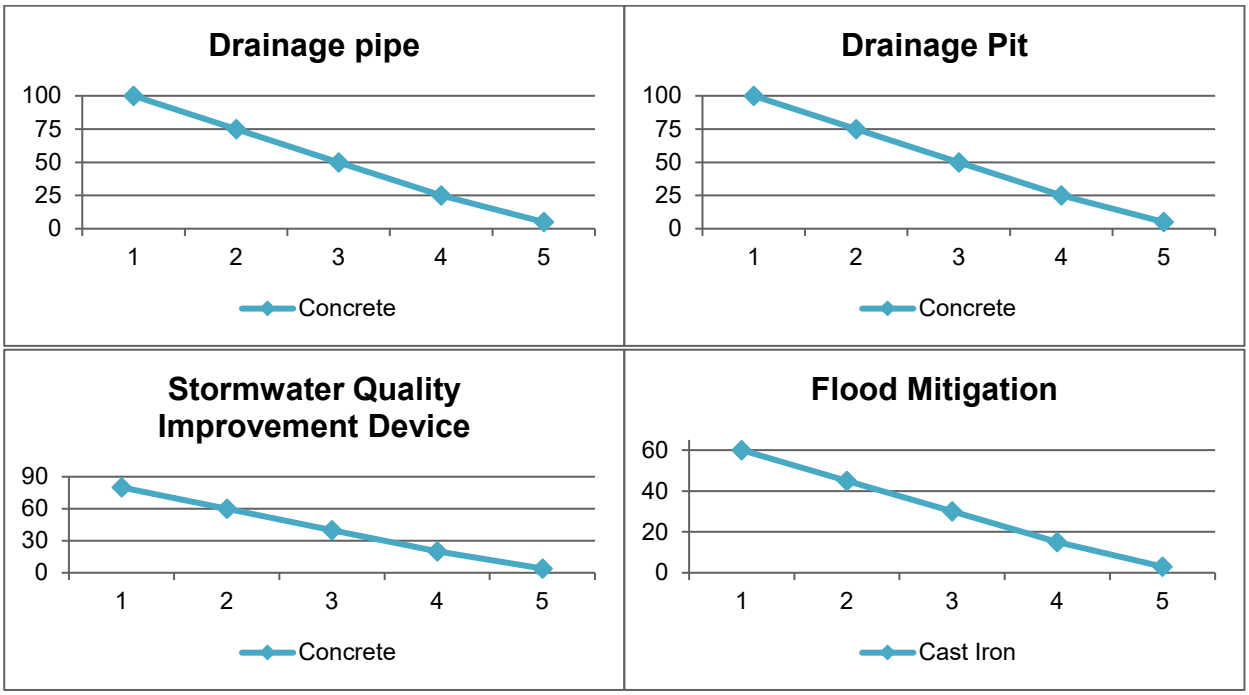
The intent of Council is not to undertake renewal on an asset until it reaches its ‘Intervention Level’, that is the condition at which the community has determined renewal is required based on the LOS analysis. Typically, assets will be renewed between condition 4 and 5 which ranges from fair/poor to very poor depending on their classification. The intervention level is also related to the criticality of the asset as per the information in Table 5.1.

Deterioration profiles have been developed that track the rate of deterioration expected over time for each material type in each asset group. This information is used in our models to determine when an asset is expected to be due for renewal, noting that assets will only be renewed when they reach their intervention condition, not based on their age.

Figure 5.1 provides examples of several deterioration profiles used with the vertical column showing the years remaining at a particular condition. For example, Drainage pipes at condition 3 will last 45 years until complete failure at condition 5.

[1] CM9 Reference : 20/14993

Figure 5.1: At what rate (%) do we expect our assets to deteriorate?



Using the information from the curves above and the intervention level set for the class of an asset we can determine the expected useful life of our assets as detailed in table 5.1 below.

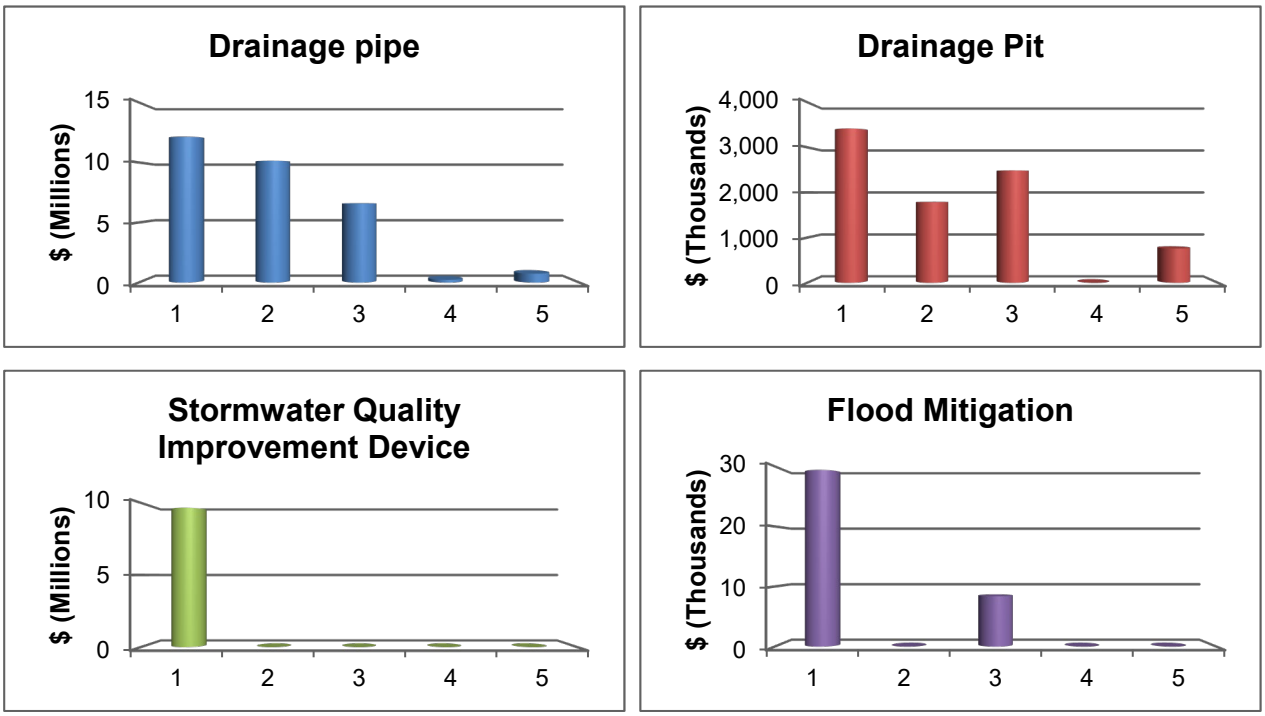
Table 5.1: What are our Intervention Levels to Renew an Asset

Component	Intervention Level (condition grading)	Useful Life
Drainage Pit	4	100
Drainage Pipes	4	100
Culverts	4	80
Headwalls	5	80
Stormwater Quality Improvement Devices	4	80
Flood Mitigation	3	60
Open Drains	5	40

Flood gates are critical infrastructure to prevent flooding in Singleton and so the intervention to overhaul these assets is at a higher level than other assets.

Each asset's condition is maintained in the Asset Register and the graphs below gives the condition profile based on the value of the top 4 valued assets in each condition.

Figure 5.2: What Conditions are our assets in ($0,000)



6. Operations

Operational activities are those regular activities that are required to continuously provide the service including asset inspection, engagement of internal/external service providers and overheads.

Council conducts regular CCTV inspections and reporting of parts of the underground network. Generally, between 500m and 1000m of conduit is inspected each year. It is anticipated that CCTV inspections will focus on older areas, and those identified as getting close to intervention level, with newer areas not requiring inspection until the pipes are 30 years of age, unless specific problems are identified. As noted above evidence to date indicates pipes in urban Singleton east of the river are in poor condition and these pipes will remain the focus of asset inspection and cleaning. Pipe cleaning and CCTV inspections are normally an Operational activity but due to limited budget these are funded from the Capital budget in Singleton. The only 'operational' activities are inspections and cleaning of GPTs.

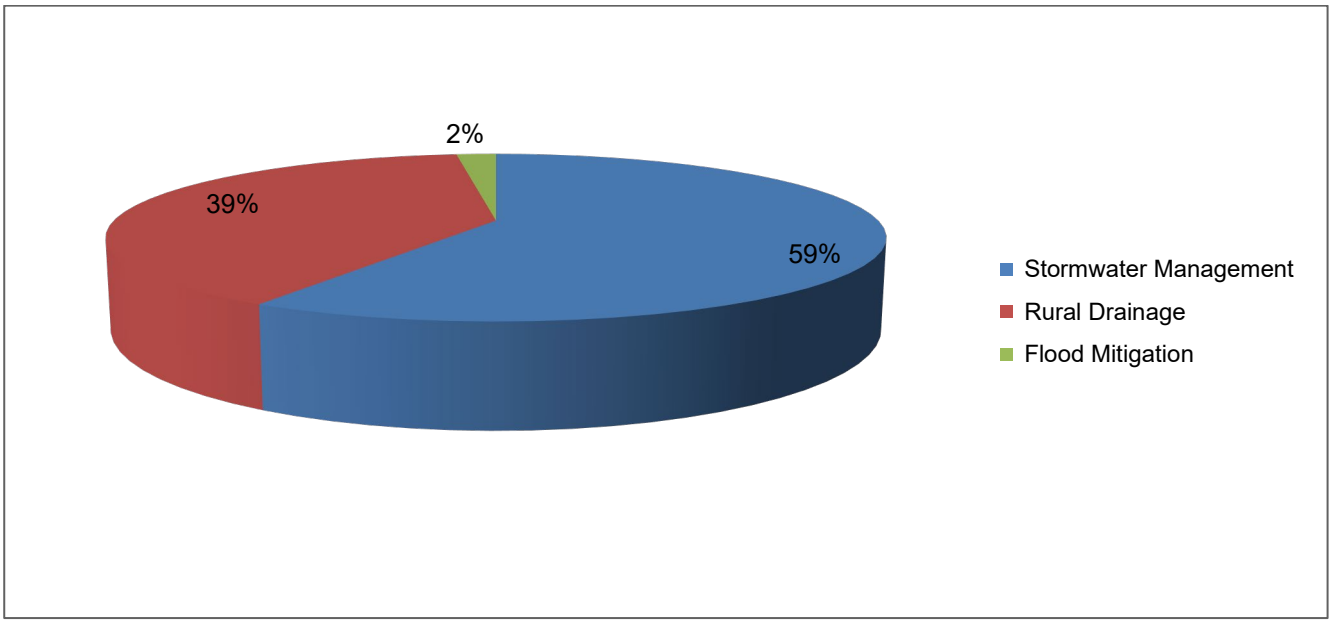
Table 6.1: When do we undertake Inspections

Inspection	Frequency
CCTV	Annual 500-1000 metres
Basins	Nil
Open drains/swales	Nil
GPT' s	6 monthly
Surface Pits	Nil

Table 6.2: What are our annual Operational Costs

Item	Budget Available	Budget Required	Gap
Stormwater Management	57.98	58.86	0.88
Rural Drainage	39.09	50.38	11.29
Flood Mitigation	1.97		-1.97
Total	**99.04**	**109.24**	**10.21**

Figure 6.1: What is the breakup of our Operational Costs



7. Maintenance

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their expected useful life. It includes work on an asset, where a portion may fail and require immediate repair to make it operational again. It may be either planned, where works are programmed in, cyclic in nature or reactive, in response to storm damage or vandalism.

Council carries out routine inspection and maintenance on the stormwater system. A particular issue for Singleton east of the river is the flat terrain makes it difficult to achieve good grades and depth of burial for pipes to carry stormwater to discharge outlets. Lack of depth (head) and flat grades limits the capacity of the pipes and also reduces their ability to self clean in storms, so they end up filling with silt and gravel. This reduces the effectiveness of the drainage and adds to Council's maintenance costs in cleaning.

Cleaning – There is an allocated budget for pipe cleaning and removal of tree root intrusions within parts of the underground pipe network. Council is developing a plan for inspections and cleaning of the pipe system and is able to use specialist pipe cleaning contractors to carry out this work. This will be informed by a review of existing CCTV footage.

Figure 7.1 CCTV inspection of a stormwater pipe in Bathurst St, note pieces missing from bottom of pipe.

Council has over 50 devices on the urban stormwater system designed to reduce water pollution The Gross Pollutant Traps help to prevent rubbish and other pollutants from entering our waterways. Many of these devices need to be routinely cleaned of litter and debris to be effective. This work is generally carried out by contractors. Council does not currently budget sufficient funds for this routine cleaning to occur at the required frequency. This means that gross pollutant traps are filling up with litter and not being effectively captured. Council routinely inspects and cleans Gross Pollutant Traps, which are designed to collect rubbish and other pollutants that may end up in the stormwater system.

Council undertakes ad hoc cleaning of stormwater pits and grates to ensure they are free of debris and able to perform to capacity. This is generally done in high activity areas, such as the CBD or in known areas that have large leaf matter build-up from street trees. In the older parts of Singleton east of the river some of the inlet pits are very old and have only a small opening to let water into the underlying pipe. These old pits tend to block more easily than modern pits with extended kerb inlets, such as those found in Hunterview and Singleton Heights. Blockage of these ‘short’ pits increases the chance of nuisance flooding.

Figure 7.2 Short length inlet pit in 'old' part of Singleton is easily blocked by leaf litter

Council has no programme of mowing open grassed channels and stormwater retarding basins.

Repairs - There is a reactive maintenance programme for the repair/replacement of stormwater inlet pit and junction pits. Priority is given to critical locations, such as in major roadways.

Inspections -There is an ongoing programme of CCTV inspections of parts of the pipe network. The CCTV reports are used to develop rehabilitation/maintenance plans.

Customer Request Management System - Council has a customer service system, which allows residents to report issues and inspections/repairs to be prioritised and carried out.

Table 7.1: What are our Maintenance Activities and the frequency we undertake them

Activity	Expected Timing	Notes
Drainage Maintenance	As per CRM requests	In response to customer requests cleaning of debris from storm or surveillance officer defect report. Also street sweeping program remove material from gutters that would otherwise enter drains.
Floodgates Maintenance	As per CRM requests	
GPT / SQID Maintenance	Unplanned	In response to customer requests cleaning of debris from storm or surveillance officer defect report.

Activity	Expected Timing	Notes
Levee Maintenance	Mowing part of Open Space	Inspections following major floods
Manholes Maintenance	As per CRM	In response to customer requests cleaning of debris from storm or surveillance officer defect report.

Adjusting Levels of Service

If there is a desire based on community feedback, the following changes to the current LOS can be further investigated and costed.

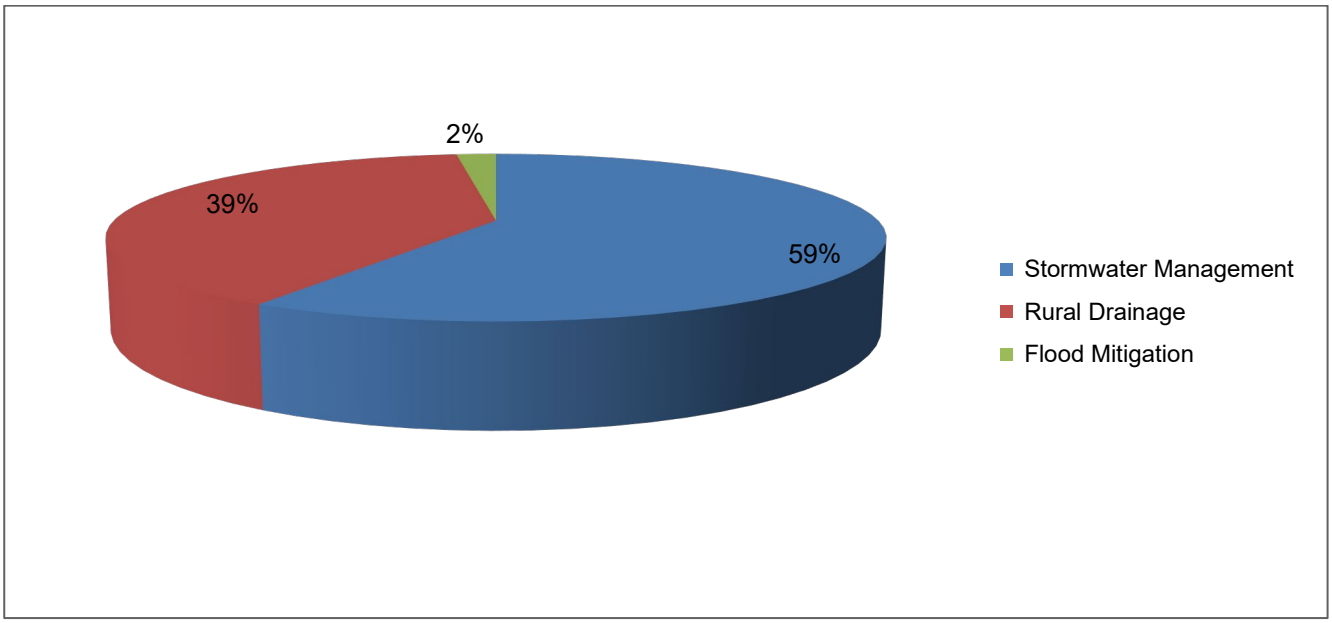
- Reduced mowing and maintenance of open swales and basins leading to potential loss of capacity and loss of amenity
- Reduced cleaning of Gross Pollutant Traps in areas that are expected to generate less pollution per hectare, such as residential areas, meaning that resources can be redirected to areas of higher pollution, such as the CBD and shopping strips or industrial areas.
- Lower intervention levels, meaning that assets will become more degraded before repairs are carried out
- Reduced maintenance services, meaning that the response time for repairing reported issues is extended.
- The use of alternative pipe materials, which may lead to lower useful lives and increased maintenance costs.
- A reduction in the design ARI for the underground stormwater system in areas of lower criticality, meaning the system will be designed to cope with smaller storm events and more reliant on overland flow paths to convey stormwater flows
- Reduced street sweeping and cleaning activities, which may lead to increase pollution loads in the stormwater system.

The proposed maintenance programs are detailed in Appendix A

Table 7.2: What are our annual Maintenance Costs ($000)

Item	Budget Available	Budget Required	Gap
Stormwater Management	135.28	137.34	2.06
Rural Drainage	91.21	117.56	26.35
Flood Mitigation	4.60	0.11	-4.49
Total	**231.09**	**255.01**	**23.93**

Figure 7.2: What is the breakup of our Maintenance Costs



8. Capital Renewal / Rehabilitation

This includes work on an existing asset to replace or rehabilitate it to a condition that restores the capability of the asset back to that which it had originally. The intervention level and estimated useful lives are contained in Table 5.1.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than the full replacement cost. In the case of underground pipes and pits, 'low cost' renewal means use of trenchless techniques such as Cured In Place and Spiral liners for pipes and structural or non-structural coating for pits. These technologies use the existing deteriorated structure as a 'host' for a new lining which resists external loads and restores the service potential of the asset.

This Asset Management Plan contains an analysis based on broad assumptions and best available knowledge to date. Modelling is not an exact science, so we deal with long term averages across the entire asset stock. Work will continue on improving the quality of our asset registers and systems to increase the accuracy of our renewal models.

Asset renewal for stormwater pipes is based on the conditions of the pipe network. The majority of the system is made up of concrete pipes, which have an expected lifespan of 100 years. Regular inspections of the system, using CCTV, allows for more accurate condition ratings to be established. Although CCTV records of drainage pipes are incomplete the evidence so far is that urban stormwater pipes in the old part of Singleton are in very poor condition, whereas those in Darlington, Hunterview and Singleton Heights are better, as they are relatively young. Council should anticipate the need to spend considerable amounts renewing stormwater pipes in the old part of Singleton in the near future.

The criticality of the pipe is also important when assessing the need for rehabilitation and determines the intervention level for renewal / rehabilitation of a pipe. For example, a trunk drain line that services a major arterial road may have a higher criticality rating than a small pipeline within an urban street.

Assets requiring renewal will be generally identified from estimates of remaining life and condition assessments obtained from the asset register and models. Candidate proposals will be inspected to verify the accuracy of the remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

Details of planned renewal activities proposed in the current Delivery Program are contained in Appendix B for each asset category. There is some uncertainty about the magnitude of the forward work program as Council's data on the condition of underground pipes is incomplete. Council staff will continue to build the knowledgebase of the condition of stormwater pipes and use this to refine or expand the forward works program. As noted above early evidence is that pipes in the 'old' part of Singleton will need urgent renewal in the next few years. The first year of the program will be considered in the development of the next Operational Plan and the remaining 3 years of work will be assessed each year to confirm that the asset has reached its intervention level prior to the work being scheduled.

The costs presented in the following table identifies the current level of funding for the required renewal programs and the funding required to maintain the asset to what is considered an appropriate standard. The required funding in that table is based on the intervention specified in Section 5.

For this asset group, an analysis has been undertaken to determine assets that are already at or above intervention level that are not able to be funded in the next Operational Plan. This work is quantified in the 'Backlog' column.

Table 8.1: What are our Renewal Costs, Gap and Backlog (2021 $,000)

Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Drainage Pit					
Drainage pipe	286	417	131		1,305
Culvert	43	43			
Headwall	8	8			
Stormwater Quality Improvement Device					
Flood Mitigation	3	3			
Open Drains					
Total	**340**	**470**	**131**		**1,305**

The following graphs show the proposed expenditure on renewals over the next 10 years and the rolling backlog in any one year over that period. Two graphs are presented due to the high impact of the rolling backlog. Figure 8.1 indicates that, based on current projections, Council will spend an average $340,000 per annum on renewals which includes 'operational' spending cleaning pipes, CCTV inspections and repairs to erosion control structures.

Figure 8.1: What will we spend (2021 $,000) over the next 10 years on Renewal

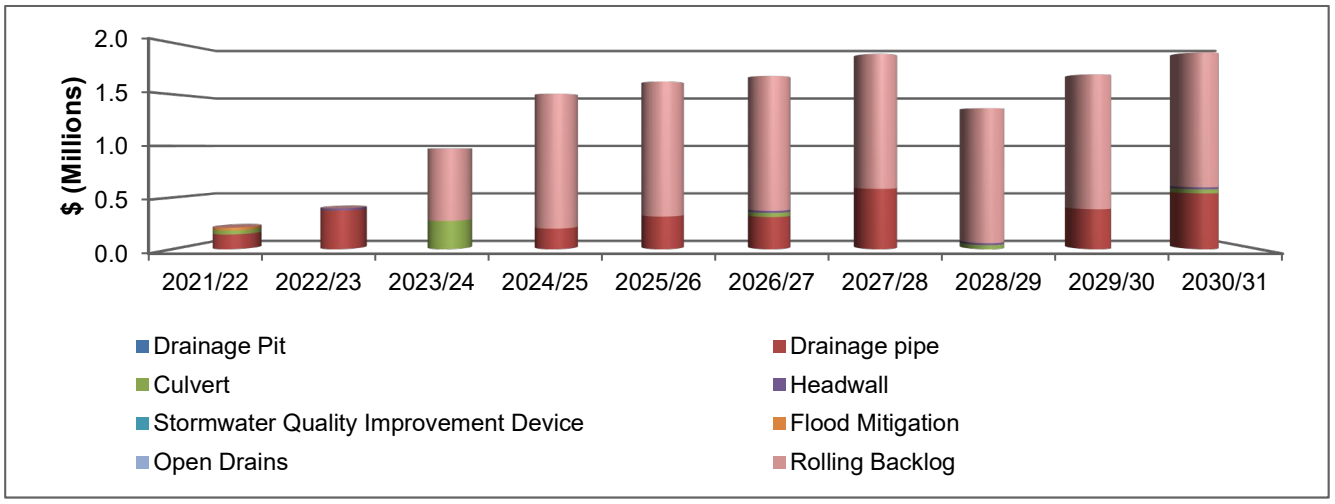
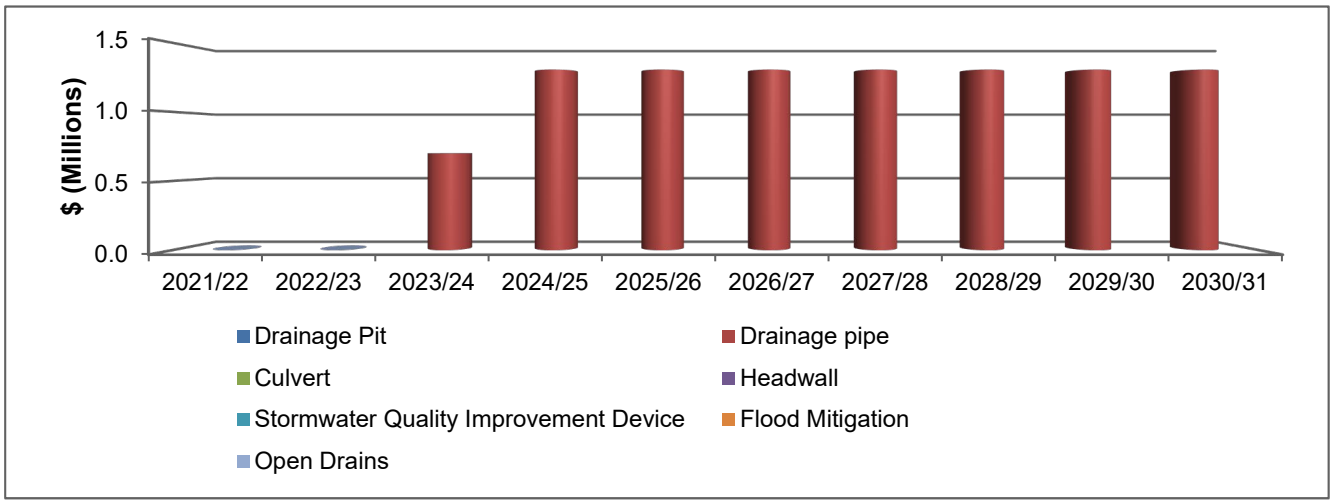


Figure 8.2 indicates that in any year the value of work exceeding the intervention levels set in this Asset Plan will reach $1.3 million the end of 10 years. However, from Table 8.1, when considering the renewals required over the next 10 years, an additional $131,000 per year would be required to ensure no backlog of works in 2030/31.

Figure 8.2: What are the projected rolling backlog splits ($,000)



Lifecycle costs

The lifecycle costs are determined based on the total cost of ownership of each asset including operations, maintenance, renewal and disposal costs. The ten (10) year average annualised lifecycle costs for each component is presented in table 8.2 – depending on information available, may need to apportion the maintenance and operating costs.

The Asset Life Cycle Cost is the total cost of ownership over the life of the asset. Typically, the capital cost of stormwater assets will be about 70% of the life cycle cost.

A life cycle cost analysis should be undertaken which examines capital costs, recurrent costs (O&M), financing arrangements and residual costs at end of life.

Estimating life-cycle costs

The life-cycle cost of an asset can be expressed by the simple formula:

LCC = Capital cost + life-time operating costs + life-time maintenance costs + disposal cost – residual value.

However, ascertaining a measure of each variable in the formula can be difficult. Future costs are usually subject to a level of uncertainty that arises from a variety of factors, including:

- The prediction of the pattern of use of the asset over time;
- The nature and scale of operating costs;
- The need for and cost of maintenance activities;
- The impact on inflation on individual and aggregate costs;
- The prediction of the length of the asset's useful life; and
- The significance of future expenditure compared with present day expenditure.

Please note that there is quite a variation between costs for differing sizes of mains and associated infrastructure depending on capacity, and type of construction material. As this document is a high level overview of the Asset Management Plan for Stormwater Assets; the table has been produced using averages of these different costs. For a more detailed and precise lifecycle cost forecast the individual units of infrastructure must be interrogated on its own merits.

Table 8.2: Some examples our Scheduled Lifecycle Costs? ($000)

Asset	Quantity	Units	O&M	Renewal	Disposal	Average Annual	$/Unit p.a
Culvert	26.3	km	130.3	317.4	31.7	479.5	18,223.85
Drainage Pit	2,933.0	ea	0.0	84.9	8.5	93.4	31.85
Drainage pipe	79.6	km	193.3	298.4	29.8	521.5	6,553.65
Headwall	4,299.0	ea	0.0	94.2	9.4	103.6	24.10
Stormwater Quality Improvement Device	61.0	ea	0.0	82.2	8.2	90.5	1,482.96
Flood Mitigation	6.0	ea	6.6	0.6	0.1	7.3	1,210.47
Open Drains	6.5	km	0.0	44.4	2.2	46.6	7,141.20
Total			**330.1**	**922.1**	**90.0**	**1,342.3**	

9. Capital Upgrades & New Assets

Upgrades enhance an existing asset to provide a higher level of service, for example widening an existing road seal. New assets are those created to meet an additional service level requirement or increase the size of a network, for example, new subdivisions, or extension of the stormwater drainage network.

The requirements for new assets may result from growth, social or environmental needs. The impact from growth is included in the demand analysis within the Asset Management Strategy.

Both capital types may be funded at least in part through Developer Contributions in the form of a Section 64 or 7.11 Contribution, a Voluntary Planning Agreement, or as part of a subdivision development.

Selection criteria

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

Council has developed a framework for the prioritisation of capital projects and that information is used in the consideration of all new projects above the threshold set in the framework. Included in the analysis is the identification of life cycle costs as outlined in the Asset Management Strategy.

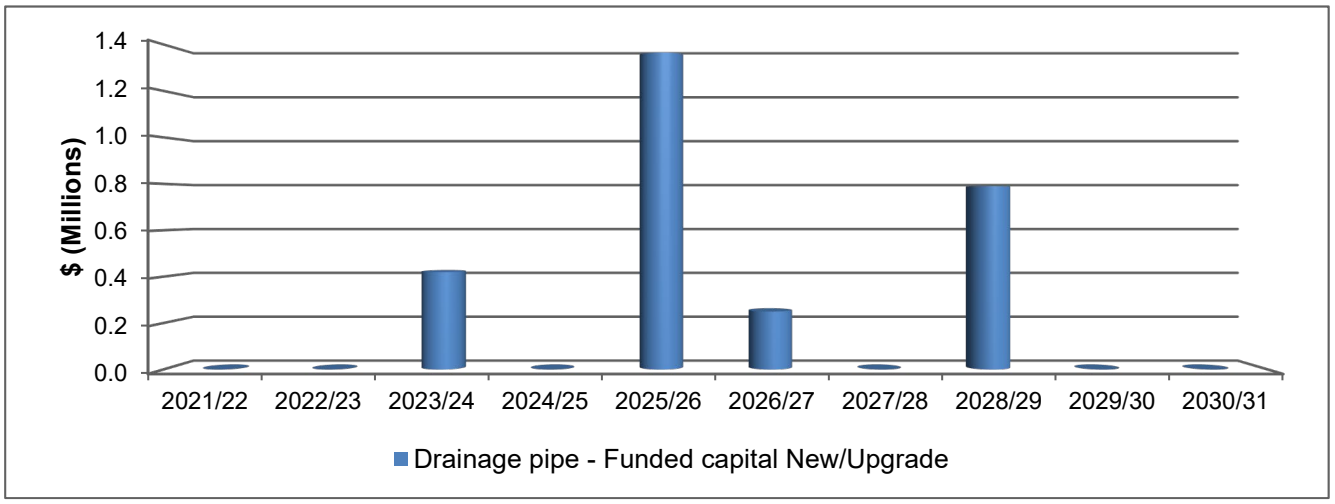
Council has an adopted strategy for the expansion of Stormwater Network with the following new / upgraded assets proposed over the next 10 years to meet demand and safety improvement requirements. Table 9.2 indicates the major projects and groups of new / upgraded assets proposed.

This does not include developer contributed assets, although Figure 9.1 anticipates the total asset expansion. The table below shows the major proposed Council projects.

Table 9.1: What upgraded / new assets are proposed over the next 4 years (2021 $,000)

Project	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects					
Town head Park Drainage Improvements			420,000		420,000
Total Funded			**420,000**		**420,000**
Unfunded Projects					
Kelso/Ada Area pipe work upgrade & SQID-Part 1			500,000		500,000
Upgrade downstream pipes to sizes euqal to or larger than the upstream pipes near York St & Bathurst St Construction - Upgrade			150,000		150,000
Springdale Park - Upgrade pipe to match sizes				200,000	200,000
Total Unfunded			**650,000**	**200,000**	**850,000**

Figure 9.1: What Upgraded or New Assets will be Created – 2021 ($,000)



10. Disposal Plan

Disposal is any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Generally, stormwater assets are retained, through rehabilitation or augmentation of the existing system. Known disposals in the past include old brick lined pipe systems and stormwater lines located within subdivisions, that due to changes in proposed lot layouts, have been relocated.

Other disposals may include the replacement of open swales with a pipe system, or the relocation of existing lines that are within private property that is being redeveloped, which have required the shifting of infrastructure.

The disposal of land, upon which assets are located may also be considered in the disposal plan. This may include the sale of land, due to a change in use, or the disposal of easements or lease agreements that are no longer required.

At this stage there are no known plans to dispose of any stormwater assets. Generally, pipes which are due for renewal will be relined/rehabilitated, meaning that the existing asset is restored to a satisfactory service level.

11. Financial Plan

As part of its funding strategy, Council has the option to supplement any or all of the current or new capital expansion or rectification proposals that come into consideration for construction with borrowings. This strategy is heavily influenced by the monitoring of Councils Debt Service Ratio. Council currently limits this ratio at 7.49%.

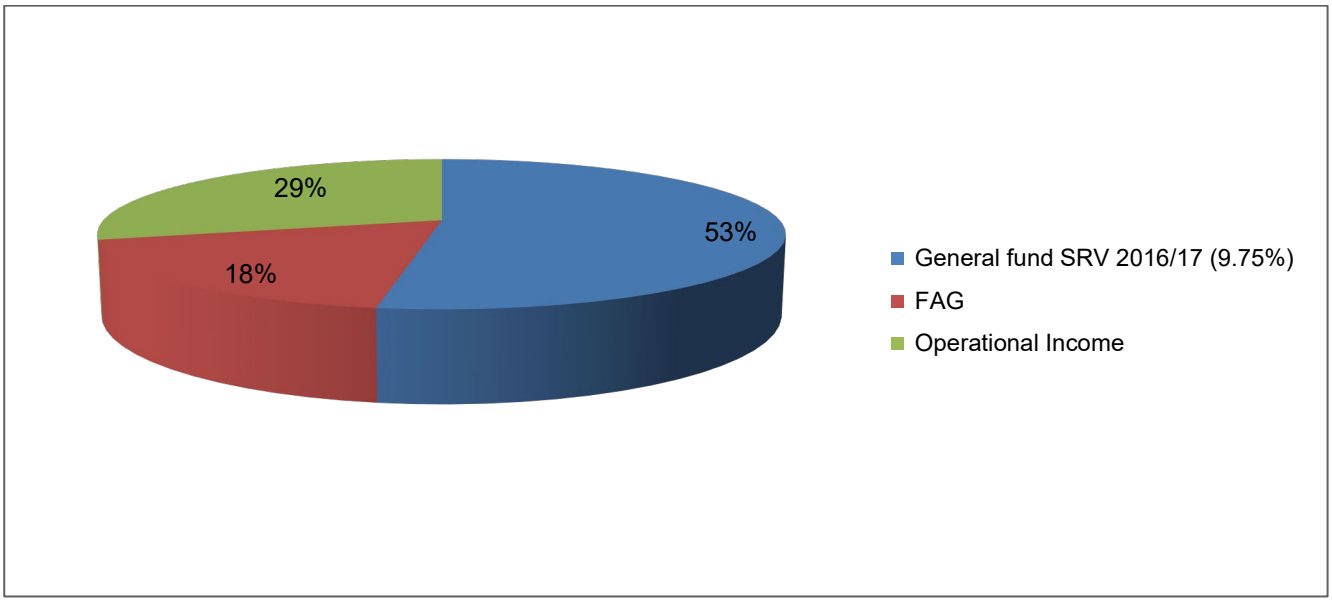
A summary of the funding requirements and expenditure over the next 10 years is included in Appendix D.

Funding for management of assets can come from a variety of sources as detailed in the table below.

Table 11.1: Where does our Income come from ($,000)

Item	Budget Available
General fund SRV 2016/17 (9.75%)	500
FAG	157
Operational Income	278
Total	**953**

Figure 11.1: What is the breakup of our income streams



12. Plan Improvements

In addition to the Asset Management Strategy improvements, the following items outline proposed improvements to the way in which stormwater assets are managed. It is expected that this will be an ongoing process, as part of good asset management practice is to continually review and improve the methodology used.

Also, there is a general improvement plan in place for asset management framework PM20_80014 - Asset Management Framework Improvement plan

Plan Improvement	Timeframe
Review existing CCTV records of drainage pipes and link condition rating to asset register and GIS to identify pipes in Condition 4 or 5 that need relining/replacement, to inform major replacement contract (especially in 'old' Singleton).	December 2021
Develop a program to replace short-length pits in the older parts of Singleton that are prone to blocking with modern long-length lintels.	June 2022
Routine inspection and periodic cleaning of open channels and detention basins, mowing of grassed channels	As per level of service
Increased budget for cleaning of Gross Pollutant Traps to ensure GPTs not overflowing.	As per level of service
Obtain accurate data on pipe levels and grades via survey and use this to develop new urban stormwater drainage models for each sub-catchment in the urban area of Singleton to determine capacity (ie. a new stormwater strategy)	June 2023
Updating condition assessment manual	June 2022
Finalising strategic modelling of Drainage asset class	June 2023
Updating and adding condition of assets against financial attribute (CVR)	June 2022
Check financial coding of CVR and relocate the assets to the appropriate category	June 2022
Developing planned maintenance program	June 2023
Ongoing maintenance of asset register	ongoing

It must be noted that these items are part of a continual process and need to be reviewed on a yearly basis as to progress and validity.

13. Risk Management Plan

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan is being re-developed which includes the management of risks for each of its assets. From this Plan the following key Risks have been identified: Full risk register of Infrastructure Services can be viewed at CM9 record 18/8934.

Table 13.1 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
failure of critical asset in the drainage asset class	injury/fatality damage to reputation loss of amenity for community litigation loss of service	9	Defining level of service Ongoing monitoring of condition of assets- above ground assets: visual inspection and underground assets through a planned CCTV program

One of the outcomes of this assessment is the determination of **Critical Assets.** Critical assets are specific assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenance activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Criticality can be assessed by applying broad assumptions about the implications of failure, for example, whether the non-availability of an asset would have a significant impact on the local or possibly the national economy. Using this approach, simple criteria can be defined to assess the loss of service. For example, the loss of use of a drainage asset may.

- affect or disconnect specific parts of a community,
- affect businesses of different sizes and significance, and
- affect specific numbers of road users/hour.

Table 13.2 Criticality Ranking

Asset Class	Asset Category	Criticality Ranking	Criticality Definition
Drainage			
	SQID- Pipe-Pit-Culverts-Flood gate		
		Very High (4)	Loss of asset would cause **significant disruption**. Could cause severe damage to property like shops and businesses in heavy rain events or excessive flooding in residential areas.
		High (3)	Loss of asset would cause **some disruption**. These assets result in flooding of the road network.
		Medium (2)	Loss of asset would cause **minor impact**. Has limited concerns for the network, often in road reserves.
		Low (1)	Loss of asset would have **virtually no impact**. Generally situated parks or reserves with flow on into open space with no major issues.

The identification of critical drainage assets is identified in Table 13.3 where there is a potential for failure to risk public safety or property have also been identified as critical.

Table 13.3 Critical Assets

Critical Assets	Critical Failure Mode	Treatment Plan	Critically Ranking
Flood gates	Level of Service: Fail to close	Annual 'test' operation to open/close Inspection and overhaul of mechanical parts every decade	4
Levee bank	'Piping' failure of earthen embankments Structural failure of concrete elements	Annual visual inspection and post flood event. Formal inspection once per decade.	4
Pipe network	Physical Mortality, Capacity	CCTV program in place to monitor condition of pipe and plan for renewal or redesign if the capacity is an issue	3

Appendix A: Maintenance Program

Council carries out regular maintenance of the stormwater assets to ensure optimal operation of the system.

Regular pit lid/grate repairs are carried out as well as inspection and repair of GPT's. Regular maintenance is carried out on swales that require reshaping.

Council also carries out regular cleaning and tree root removals of stormwater pipes.

There is also a regular programme of open drain maintenance as well as maintenance of Councils wetlands and bio-swales.

Planned maintenance program will be developed.

Appendix B: Renewals

Table 15.1 Drainage Pipe ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Bathurst St Drainage Line - Replace or Structural Lining - York to Albert	Condition		100,000			100,000
Church St Drainage Line - Replace or Structural Lining - York St to Shaw St	Condition			200,000		200,000
Finish Catchment S10 - Clean and CCTV	Condition	118,319				118,319
Upgrade downstream pipes to sizes equal to or larger than the upstream pipes near York St & Bathurst St Design - Upgrade	Strategy	25,000				25,000
Finish Catchment S10 - Replace or Structural Lining	Condition			221,000		221,000
Total Funded		**143,319**	**100,000**	**421,000**		**664,319**
Unfunded Projects						
Catchment S2 Clean and CCTV	Condition				200,000	200,000
Catchment S2 Upgrade - Relining/Replacement	Condition				605,000	605,000
Total Unfunded					**805,000**	**805,000**

Table 15.2 Culverts ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Standen Drive - 7.08 from Bell Road - Culvert Replacement	Condition		300,000			300,000
Erosion Control Repairs - Rural Drainage areas	Condition	40,000				40,000
Total Funded		**40,000**	**300,000**			**340,000**
Unfunded Projects						
Total Unfunded						

Table 15.3 Headwalls ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Headwall Repairs - Rural Drainage	Condition		20,000			20,000
Total Funded			**20,000**			**20,000**
Unfunded Projects						
Total Unfunded						

Table 15.4 Flood Mitigation ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Flood Gate Repair & Improvement	Condition	25,000				25,000
Total Funded		**25,000**				**25,000**
Unfunded Projects						
Total Unfunded						

Appendix C: Upgrade / New Capital Works Program ($,000)

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Funded Projects												
Town head Park Drainage Improvements	Commitment		420,000									420,000
Upgrade downstream pipes to sizes equal to or larger than the upstream pipes near York St & Bathurst St Construction - Upgrade	Strategy			150,000	654,000							804,000
Total Funded			**420,000**	**150,000**	**654,000**							**1,224,000**
Unfunded Projects												
Kelso/Ada Area pipe work upgrade & SQID-part 1 & Part 2	Commitment					500,000		500,000				1,000,000
Harry George Reserve - New pipework to Greenwood Ave	Strategy						1,511,000					1,511,000
Bowden St basins - Connection to existing open drain	Strategy						402,000					402,000
Upgrade downstream pipes to sizes euqal to or larger than the upstream pipes from Gowrie St to Ryan Ave	Strategy								800,000			800,000
Upgrade downstream pipes to sizes equal to or larger than the upstream pipes at intersection of Kelso & Bond St - pipe upgrade 375 to 450	Strategy									800,000		800,000
Albion Park - lower 900mm to catch large flows & reduce flooding & bioretention including infiltration device	Strategy										900,000	900,000
Springdale Park - Upgrade pipe to match sizes	Strategy				350,000							350,000
Install new detention basin in the open space near Ada St - Design in progress	Strategy				1,582,900							1,582,900
Total Unfunded					**1,932,900**	**500,000**	**1,913,000**	**500,000**	**800,000**	**800,000**	**900,000**	**7,345,900**

Appendix D: 10 Year Financial Plan (2021 ,$000)

Item	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Average
Income											
General fund SRV 2016/17 (9.75%)	(125)	0	(468)	(200)	(1,690)	(601)	(585)	(365)	(370)	(600)	(500)
FAG	(83)	(395)	(327)	(200)	(117)	(121)	0	(485)	(18)	0	(175)
Operational Income	(301)	(308)	(213)	(120)	(201)	(233)	(340)	(346)	(353)	(360)	(278)
Total Income	**(510)**	**(703)**	**(1,008)**	**(520)**	**(2,008)**	**(955)**	**(925)**	**(1,196)**	**(741)**	**(960)**	(953)
Operations											
Stormwater Management	53	54	55	56	57	58	60	61	62	63	58
Rural Drainage	36	36	37	38	39	39	40	41	42	43	39
Flood Mitigation	2	2	2	2	2	2	2	2	2	2	2
Total Operations	**90**	**92**	**94**	**96**	**98**	**100**	**102**	**104**	**106**	**108**	99
Maintenance											
Stormwater Management	124	126	129	131	134	136	139	142	145	148	135
Rural Drainage	83	85	87	88	90	92	94	96	98	100	91
Flood Mitigation	4	4	4	4	5	5	5	5	5	5	5
Total Maintenance	**211**	**215**	**220**	**224**	**228**	**233**	**238**	**242**	**247**	**252**	231
Renewals											
Drainage pipe	143	375	0	200	317	312	585	0	388	540	286
Culvert	40	0	274	0	0	40	0	40	0	40	43
Headwall	0	20	0	0	0	20	0	20	0	20	8
Flood Mitigation	25	0	0	0	0	0	0	0	0	0	3
Total Renewal	**208**	**395**	**274**	**200**	**317**	**372**	**585**	**60**	**388**	**600**	340
Upgrade / Expansion											
Drainage pipe - Funded capital New/Upgrade	0	0	420	0	1,365	250	0	790	0	0	283
Total Upgrade / Expansion	**0**	**0**	**420**	**0**	**1,365**	**250**	**0**	**790**	**0**	**0**	283
Total Expenditure	**510**	**703**	**1,008**	**520**	**2,008**	**955**	**925**	**1,196**	**741**	**960**	**953**

ASSET MANAGEMENT PLAN

OPEN SPACE + RESERVE

SINGLETON COUNCIL

W singleton.nsw.gov.au

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Document Control					
Rev No	**Date**	**Revision Details**	**Author**	**Verifier**	**Approver**
1	08/11/2021	Draft	NK	ML	DM

1. Executive Summary

Council's intention is to provide the Singleton local government area with an Open Space network that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Open Space assets had a fair value of **$20.509 M** on the 30 June 2020.

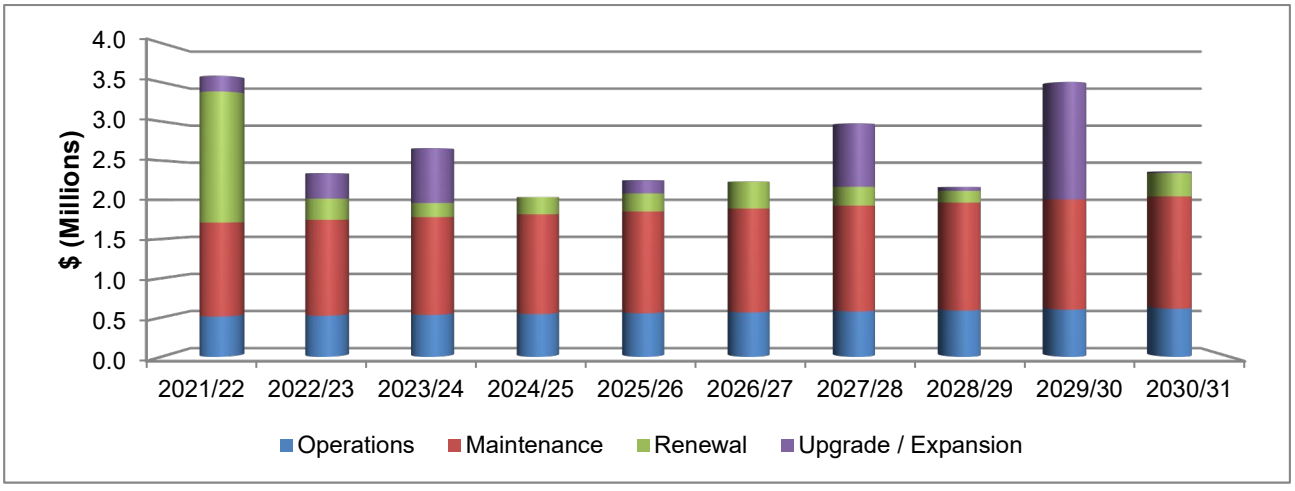
This plan assists Council in the decision-making process and is presented at a high level to provide key information that can used in the determination of levels of service and funding required. The following table identifies the asset categories in this plan, the ten (10) year average costs and funding gap if one exists. Figure 1.1 indicates the proposed expenditure over the next 10 years.

Table 1.1: Parks Asset Portfolio Overview (in 2021 $,000)

Asset	Fair Value	Replacement Cost	Operation & Maintenance	Renewal	Upgrade & New	Funding Gap	Backlog Year 1	Backlog Year 10
Art\Memorial	678	1,163	62	9	-	-		
Furniture	230	1,382	21	2	78	-		
Structure	2,789	5,631	255	18	98	21	209	209
Electrical	768	2,295	70	99	2	20		200
Field	12,050	15,695	1,100	61	155	24		241
Landscaping	572	4,177	52	62	20	9		85
Playground	3,422	5,409	312	110	25	20		200
Total	**20,509**	**35,751**	**1,872**	**361**	**378**	**93**	**209**	**935**

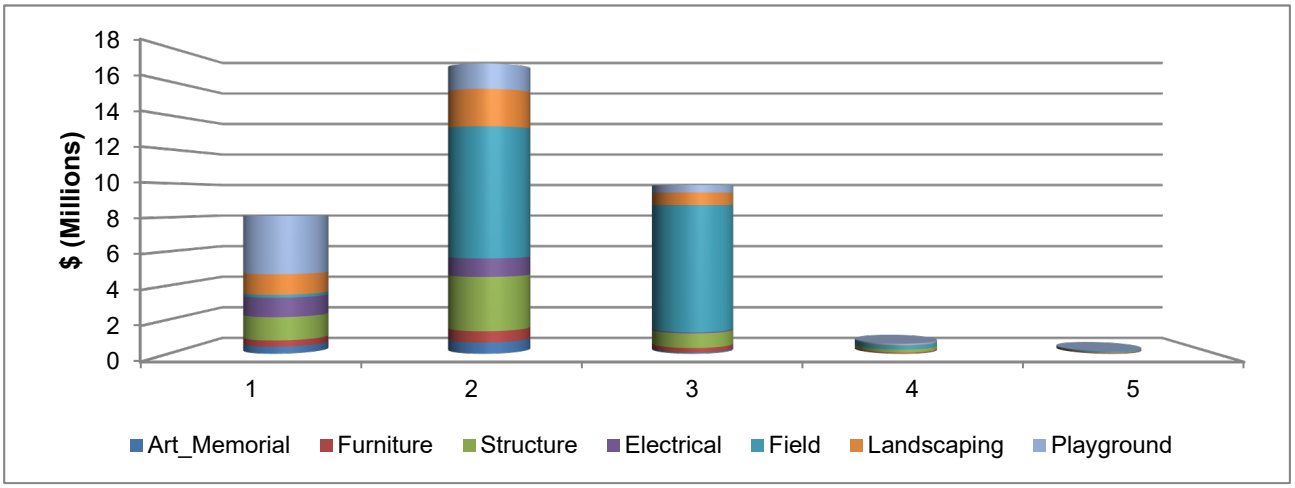
The following figure identifies the proposed expenditure over the next 10 years together with the backlog if one exists. The identified backlog in year 1 of the plan is $209,000.

Figure 1.1: What will we spend over the next 10 years in current dollars (2021 $,000)



The current condition of our assets is shown in the following graph based on the value of each asset in each of the 5 conditions. These range from 1 to 5, with 1 being new to near new and 5 as an almost unserviceable asset, yet still providing limited function.

Figure 1.2: What condition are our assets in ($,000)



The process of managing our Open Space assets is one of continually improving the knowledge Council has, including maintaining up to date asset registers, condition ratings, the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level. Section 12 contains details of the plan to further improve the details contained in the next Plan.

2. Strategic Objectives

The 2022-2032 Community Strategic Plan outcomes that are supported by this Open Space & Reserve AMP include:

- Provide safe and well-maintained facilities and infrastructure
- Collaborate to enhance, protect and improve our environment
- Increase the planning and preparedness for natural disasters
- Infrastructure, services, facilities and Council are managed in a financially sustainable way

Singleton Council developed a comprehensive community engagement strategy to ensure a broad range of opinions; ideas and visions were captured to help shape the 2017-2027 Community Strategic Plan. The outcomes & strategies supported by that plan are detailed in the Strategic Asset Management Plan.

To assist in the delivery of the objectives in this plan, a number of key documents and systems have been prepared and should be referred to in considering the findings presented:

Table 2.1: Where can I find additional information

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community
Council Asset Policy	How we manage assets; A document that broadly outlines the principles and mandated requirements for undertaking AM across the organisation in a systematic and coordinated way, consistent with the organisation's strategic plan. It provides the framework for the AM Strategy and AM Plan.
Asset Management Strategy	Overall direction of asset management and portfolio summary' The high-level long-term approach to AM including AM action plans and objectives for managing the assets
Asset Management Manual	Procedures and Processes that guide the management of assets
Level of Service Open space and Reserve	Levels of service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.
Integrated Risk Management Framework	Coordinated activities to direct and control an organisation with regard to risk.
Civica Asset Management System (AM)	Electronic system that contains the asset register, condition ratings and used to model future renewals
Singleton Council Engineering specification	Describe Council's planning, design and construction standards for new infrastructure associated with subdivisions and development works.

3. Services Provided & Classification

Public Open Spaces have been categorised into 8 classes to assist in the determination of Levels of Service. Table 3.2 identifies the characteristics that assist in identifying which class an open space will fit into. The overall rating will determine how frequently maintenance is carried out and to what standard. The establishment of a hierarchy for open spaces provides a useful tool for the planning and provision of active and passive recreation spaces and ensuring the efficient allocation of resources based on maintaining levels of service appropriate to their function within the hierarchy.

Singleton Council maintains 199.7 hectares of Urban Parks and Open Space, 76.8 hectares of sporting ovals and fields, 65.5 hectares of road side reserves and building surrounds and 90.9 hectares of bushland reserve. The total area of regional and rural public open space is 433.1 hectares. The Open Space categories had a fair value of $20.509 M at 30 June 2020 and are detailed in Table 3.1.

Table 3.1: What is provided

Category	Hierarchy	Dimension (Ha)	Number of Assets	Replacement Cost ($) (Gross Value)
Community Parks	Regional	0.19	55	1,311,310
	District	22.54	189	1,285,870
	Local	34.34	174	1,235,160
Sports Parks	District	56.47	736	26,210,180
	Local	5.63	52	234,790
	Village	12.77	247	3,230,830
Civic Spaces	Regional	1.05	84	813,420
	District	8.65	80	114,500
Linear Parks	Local	20.0	38	230,410
Landscape Areas	Parks	2.62	28	40,680
Natural Areas	Regional	131.89	147	625,680
	District	20.55	61	237,410
	Local	57.7	13	27,300
Cemeteries	District	16.34	75	126,210
	Local	3.26	12	27,250
Total			**1991**	**35,751,000**

Table 3.2: Hierarchy classification

Category	Hierarchy	Description
Community Parks	Regional	Defined spaces that attract visitors from across the city and beyond due to their uniqueness, opportunity offered or the scale of events that may be staged. Provides a range of facilities to cater for a variety of users and recreational activities which may include playground equipment for toddlers, juniors and older children, seating, shade, paths, toilets and BBQ facilities. Typical visit time greater than 60 minutes.
	District	A park of substantial size, well developed, offering a broad range of quality recreation opportunities. A range of facilities to cater for a variety of users and recreational activities which may include playground equipment for toddlers, juniors and older children, seating, shade, paths, toilets and BBQ facilities. Typical visit time greater than 30 minutes.
	Local	Open Space primarily serving a local population. Provides a limited range of facilities to support recreational activities including playground equipment, limited seating and paths to enhance play opportunities. Typical visit time about 30 minutes.
Sportsgrounds	Local	A local sportsground will primarily provide sport and recreation opportunities for residents within the locality. It is less developed than a district or regional sportsground. Provision of facilities generally service social or informal activity and foundation level sport (eg not competition).
	District	A district sportsground has the potential to draw sporting participants and spectators from across the LGA due to its uniqueness, size, quality or scope. Whilst it may draw people from the wider region, the main purpose is to cater for residents of the LGA. Generally provides multipurpose playing fields, floodlighting, irrigation, amenities and services, cycleway linkages
	Village	Whilst a village sportsground has the potential to draw sporting participants and spectators from across the LGA, the main purpose is to cater for residents of the village and surrounding district. Provision of facilities generally service social or informal activity and foundation level sport (ie not competition).

Category	Hierarchy	Description
Civic Spaces	Regional	Open spaces that provide a civic purpose and facilities to encourage the holding of functions and visitation from across the city and beyond.
	District	Open spaces that provide improved amenity through gardens and trees as well as some infrastructure such as picnic tables and bench seats for the workers and visitors to the CBD.
Linear Spaces	Local	Long and mostly narrow parks that link green spaces and provide opportunities for walking and cycling.
Landscape Areas	Parks	Provide open space and amenity values with extremely low levels of use.
	Road Reserve	Provide roadside open space and amenity values and may contain shared paths and ancillary infrastructure. May contain perennial and annual gardens in roundabouts, kerb side blisters, street trees and landscape elements.
Natural Areas	Regional	Spaces that provide the opportunity for low-impact recreational activities, such as walking, camping, picnicking, playing, watching or exploring natural features. These spaces may include bush land, wetlands and riparian habitats, and geological and natural features. Sites are managed to enable recreational access while protecting local ecological and biodiversity value that attract visitors from across the city and beyond due to their uniqueness, opportunity offered or the scale. Visitors can stay overnight.
	District	Spaces that provide the opportunity for low-impact recreational activities, such as walking, picnicking, watching or exploring natural features. These spaces may include bush land, wetlands and riparian habitats, and geological and natural features. Sites are managed to enable recreational access while protecting local ecological and biodiversity value that attract visitors from within the district to visit for approximately 1 hour.

Category	Hierarchy	Description
	Local	Smaller sites that provide the opportunity for low-impact recreational activities, such as walking, picnicking, watching or exploring natural features. These spaces may include bush land, wetlands and riparian habitats, and geological and natural features. Sites are managed to enable recreational access while protecting local ecological and biodiversity value that attract visitors within the locality for short periods of time.
Unmaintained Reserves		Reserves that are not maintained by Council on a regular basis. They generally contain no infrastructure and a low recreational value.

4. Levels of Service

Level of service are key business drivers and influence all AM decisions. Level of service statements describe the outputs that Singleton Council intends to deliver to its community and customers and other stakeholders.

Level of service typically relates to service attributes such as quality, function, and capacity.

Level of service provide the link between higher levels corporate and AM Objectives and more detailed technical and operational objectives. Service levels are defined service levels in two terms, community levels of service and technical levels of service.

Open Space assets have been categorised into classes to assist in the determination of Levels of Service (LOS) which are grouped into:

1. Community LOS – relates to how the community receives the service in terms of safety, quality, quantity, reliability responsiveness, cost efficiency and legislative compliance; and
2. Technical LOS – are the technical measures of performance developed to ensure the minimum community levels of service are met.

4.1.1 Community Level of Service

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

4.1.2 Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Function:

- Operations – the regular activities to provide services such as, mowing playing fields, cleaning of BBQs and shelters, inspections of playgrounds.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition, such as repairs to picnic tables and seats, replacement of irrigation, repairs to playground equipment such as swing seats.

Quality:

- Renewal – the activities that return the service capability of an asset up to that which it had originally, e.g. frequency and cost of asset component replacement.
- Upgrade – the activities to provide a higher level of service e.g. extending playground equipment

Capacity/Utilisation:

- New service – is the activity to provide an asset that did not exist previously e.g. a new playground to a park that did not have one, a new path extension into a park to add linkages, a new sports field for new type of sport.

Due to complexity of this asset class, a detailed level of service document has been developed to ensure that levels of service are used by all disciplines within the Open Space and Reserves area, and so that they influence all decisions to do with Open Space and Reserves asset management. The information in this document provides background support for community and technical level of service. A summary of the detailed level of service provided in Appendix 1

Table 4.1: Community Level of Service – Quality

Community Levels of Service						Technical Service level							
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Target Expenditure	Actual Expenditure	Renewals Ratio
Quality	Open Space and reserve	Plan for a sustainable and safe community	Assets are maintained in good condition	% of residents satisfied with the quality of park assets		% of assets in condition 3 or better	97.40%	95.00%	Renewals		$697,230	$306,000	43.9%

The detail of current level of service and performance target at community level will be provided in the next revision of plan after adoption of level of service for Open space and Reserve assets.

Table 4.2: Community Level of Service – Function

Community Levels of Service						Technical Service level								
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Cost / unit	Required Maintenance	Actual	Maintenance Ratio
Function	Open Space and reserve	Respond to the changing needs of the community	Assets are maintained in good condition	% of residents satisfied with the quality of park assets		Works orders and CRM completed within community charter	95%		Maintenance		see below	$2,078,517	$2,396,000	115.27%
		Greening Community places and spaces	Parks are managed sustainably	% of residents satisfied with the quality of park assets		Works orders and CRM completed within community charter	95%		Maintenance					

The detail of current level of service and performance target at community level will be provided in the next revision of plan after adoption of level of service for Open space and Reserve assets.

Table 4.3: Community Level of Service – Capacity/Utilisation

Community Levels of Service						Technical Service level						
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Required**	**Actual**
Capacity/ Utilisation	Open Spaces and reserve	Offer a range of recreational facilities meeting the community needs	Assets are maintained in good condition	% of residents satisfied with the quality of park assets		% of parks that meet service standards			New	$981,000	$1,045,845	$1,023,000

The detail of current level of service and performance target at community level will be provided in the next revision of plan after adoption of level of service for Open space and Reserve assets.

5. Condition of Our Assets

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

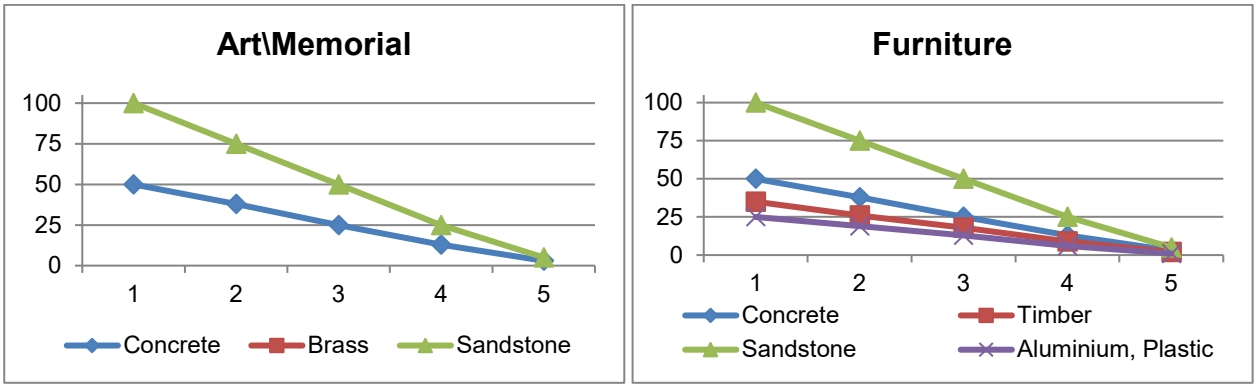
Assets are rated on a 1 (Near New) to 5 (Almost Completely Failed) scale consistent with the advanced asset management practices as outlined in the IPWEA International Infrastructure Management Manual. This details how Council will assesses condition and further information on the rating scale are contained in the Condition Assessment Manual.

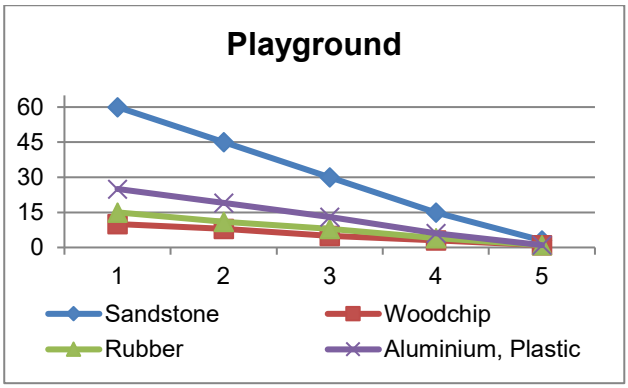
The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level', that is the condition at which the community has determined renewal is required based on the LOS analysis. Typically, assets will be renewed between condition 4 and 5 which ranges from fair/poor to very poor depending on their classification.

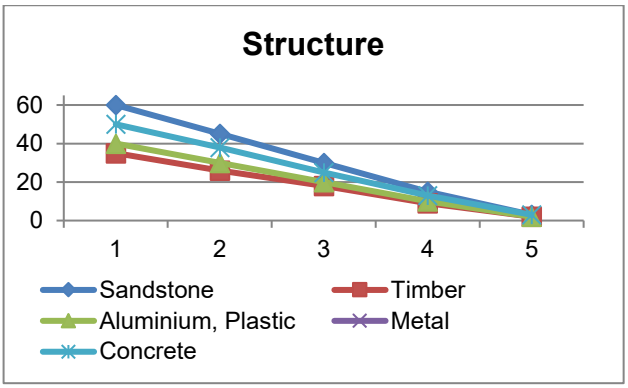
Deterioration profiles have been developed that track the rate of deterioration expected over time for each material type in each asset group. This information is used in our models to determine when an asset is expected to be due for renewal, noting that assets will only be renewed when they reach their intervention condition, not based on their age.

Figure 5.1 provides examples of several deterioration profiles used with the vertical column showing the years remaining at a particular condition. For example, park furniture made from timber at a condition 3, will last 18 years until it is considered close to failure, at condition 5.

Figure 5.1a: At what rate (%) do we expect our assets to deteriorate







Using the information from the curves above and the intervention level set for the class of an asset we can determine the expected useful life of our assets as detailed in table 5.1 below.

Table 5.1: What are our Intervention Levels to Renew an Asset

Group	Type	Material	Intervention Level	Life
Art/Memorial	Public Art	Masonry	4	100
		Sandstone	4	100
		Timber	4	100
		Steel	4	100
		Bronze	4	100
	Monument	Bronze	4	100
		Cast Iron	4	100
		Concrete	4	100
		Granite	4	100
		Masonry	4	100
		Sandstone	4	100
		Steel	4	100
		Timber	4	100
		Wrought Iron	4	70
	Plaque	Aluminium	4	70
		Brass	4	70
		Bronze	4	100
		Concrete	4	100
	Feature	Concrete	4	100
		Masonry	4	100
		Sandstone	4	100
		Steel	4	100
		Timber	4	80
	Columbarium wall	Brick	4	50
		Sandstone	4	80
Furniture	Sign	Cast Aluminium	4	35
		Gal Steel	4	35
		Sandstone	4	100

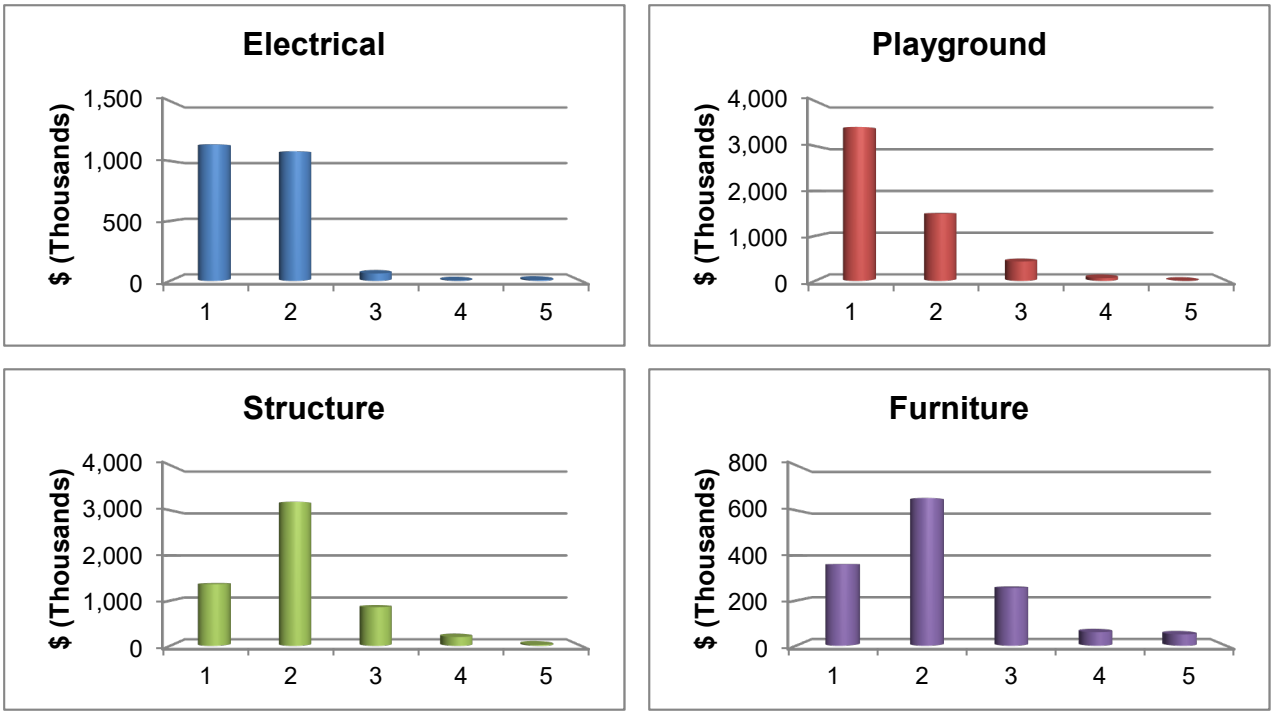
Group	Type	Material	Intervention Level	Life
		Stainless Steel	4	40
		Timber	4	35
	Seat	Cast Aluminium	4	25
		Gal Steel	4	15
		Recycled Plastic	4	35
		Timber	4	15
	Table	Cast Aluminium	4	25
		Concrete	4	50
		Gal Steel	4	25
		Masonry	4	60
		Plastic	4	25
		Stainless Steel	4	30
		Timber	4	30
	Drinking Fountain	Aluminium	4	40
		Cast Iron	4	40
		Stainless Steel	4	45
	Bin	Plastic	4	20
		Metal	4	15
	BBQ	Aluminium	4	25
		Cast Iron	4	25
		Stainless Steel	4	25
	Bike Rack	Aluminium	4	15
		Cast Iron	4	15
		Stainless Steel	4	15
Structure	Boat Ramp	Concrete	4	100
	OS - Tank - Water	Concrete	4	50
		Plastic	4	25
	OS - Fence	Concrete	4	60
		Gal Steel	4	25
		Plastic	4	100
		Powdered Coated Metal	4	25
		Sheet Metal	4	25
		Timber	4	35
		Treated Timber	4	35
		Wire Mesh	4	25
	OS - Gate	Gal Steel	4	15
		Timber	4	35
		Wire Mesh	4	15
	Bollard	Gal Steel	4	50
		Treated Timber	4	30
	Headstone strip	Concrete	4	100
	Stairway	Brick	4	100
		Concrete	4	50

Group	Type	Material	Intervention Level	Life
		Pavers	4	100
		Pebblecrete	4	50
		Sandstone	4	50
	OS - Retaining Wall	Masonry	4	50
		Rock	4	80
		Sandstone	4	60
		Timber	4	40
	Shade shelter	Plastic/ Powdered Coated steel	4	40
		Plastic/ Gal Steel	4	35
		Sheet Metal/ Gal steel	4	35
		Sheet Metal/ Brick	4	35
		Sheet Metal/ Timber	4	35
		Sheet Metal/ Powered Coated Steel	4	40
	Flag Pole	Aluminium	4	45
		Gal Steel	4	45
Electrical	Light	Fluorescent	4	30
		Halogen	4	30
		LED	4	50
		Solar	4	50
		Pole - Timber	4	40
		Pole - Metal	4	50
	Light pole	Gal Steel	4	50
		Treated Timber	4	35
	Meter Box	Metal	4	50
		Plastic	4	30
	Power outlet	Plastic	4	30
	Telecommunications - Phone	Metal	4	50
Field	Playing Field surface	Asphalt	4	60
		Concrete	4	60
		Flexipave	4	15
		Natural Turf	4	40
		Synthetic Turf	4	15
		Rubber	4	35
	Playing field sub surface	Concrete	4	60
		Gravel	4	40
		Synthetic	4	40
	Playing field earthworks	Clay	4	1000
		Soil	4	1000
		Concrete	4	80

Group	Type	Material	Intervention Level	Life
	Playing field equipment	Gal Steel	4	25
		Plastic	4	10
		Powdered Coated Metal	4	25
		Rubber	4	10
		Wire Mesh	4	40
Landscaping	Edging	Concrete	4	100
		Masonry	4	50
		Metal	4	40
		Rock	4	60
		Sandstone	4	60
		Timber	4	35
	Garden bed	Garden Soil	4	10
		Rock	4	10
	Irrigation	Concrete	4	60
		Copper	4	25
		High Density Polyethylene	4	15
		Low Density Polyethylene	4	15
		Medium Density Polyethylene	4	15
		Metal	4	60
		Modified Polyvinyl Chloride	4	80
		Oriented PVC	4	15
		Plastic	4	40
		Polypropylene	4	25
		Gal Steel	4	25
	Paving	Clay	4	40
		Concrete	4	40
		Sandstone	4	40
	Surface	Concrete	4	60
		Turf	4	40
Playground	Play equipment	Cast Aluminium	4	25
		Gal Steel	4	25
		Plastic	4	25
		Powdered Coated Metal	4	25
		Rubber	4	25
		Stainless Steel	4	25
		Timber	4	25
	Skate Ramp	Concrete	4	60
	Softfall	Rubber	4	15
		Sand	4	10
		Synthetic Turf	4	15
		Woodchip	4	10

Each asset's condition is maintained in the Asset Register and the graphs below gives the condition profile based on the value of the top 4 valued assets in each condition.

Figure 5.1b: What Conditions are our assets in



6. Operations

Operational activities are those regular activities that are required to continuously provide the service including asset inspection, mowing of parks and reserves, electricity costs, fuel and overheads.

Specific Levels of Service, including Operational Levels of Service are currently being developed for adoption by the Council and the community and will be provided in future revisions of this document.

One of the main operations undertaken by Council (directly by staff or through the provision of contracted services) and one which is highly recognisable to the community is mowing and cleaning of public open spaces. These operational tasks are conducted on a schedule basis that is more of a guide than a specific requirement. This is due to the nature of the work as sometimes more cleaning is required at a park or reserve due to high usage than normally expected. The same is for mowing requests as more than often a well-used park or sporting area will be mown more often than a less used space. So, in busy peak times of heavy rainfall and good growth areas that are more highly used will be mown more often.

Table 6.1: When do we undertake Inspections

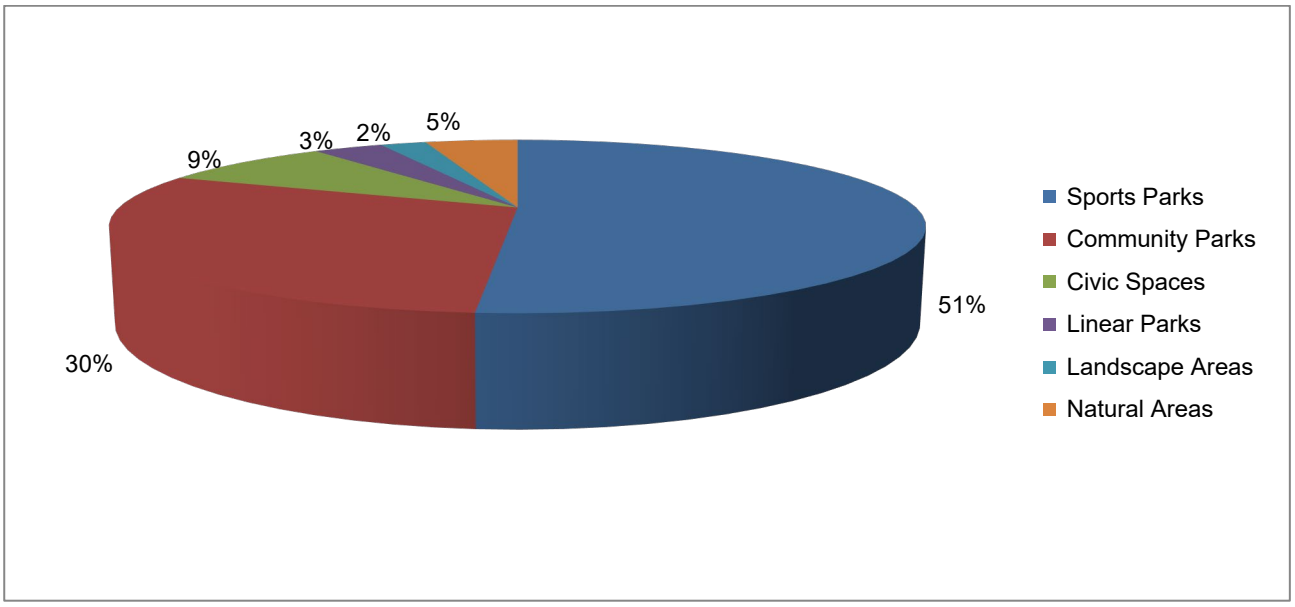
Inspection	Frequency	Responsible Department
Condition Assessments	Annually - Condition 4&5 assets inspected. Major condition assessment is per revaluation round	Asset planning
Asset BBQ's	Quarterly	Recreation and Facility
Asset Furniture	Quarterly	Recreation and Facility
Mowing	As per seasonal change over	Recreation and Facility
Playground Inspections	Quarterly by Council Officers Annually by Contractor	Recreation and Facility
Playing Fields	Quarterly	Recreation and Facility
Picnic Shelters	Quarterly	Recreation and Facility
Skate Park	Quarterly	Recreation and Facility
Irrigation	Annually	Recreation and Facility

The overall operational costs as per each category as assigned through the Levels of Service are detailed in Table 6.2. These costs relate to the budget that is spent on operational and overhead costs associated with maintain the Open Space asset class. These costs below exclude the annual depreciation expense of $1,044,574.

Table 6.2: What are our Operational Costs ($,000)

Item	Budget – Average over 10 years
Sports Parks	673
Community Parks	393
Civic Spaces	111
Linear Parks	45
Landscape Areas	29
Natural Areas	59
Total	**1,310**

Figure 6.1: What is the breakup of our Operational Costs



7. Maintenance

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and need immediate repair to make it operational again. It may be either planned where works are programmed in or cyclic in nature or reactive in response to storm damage, vandalism etc.

All works requests relating to the operation of playgrounds, sport lights, mowing of areas, damage to park furniture, damage to playing fields and the like will be actioned in a timeframe that is pertinent to the classification of the park. For example, if the sports field at a district park was damaged through vehicular damage then that would be actioned and repaired quicker than a playing field at a village park.

Safety is highly important in the area of the Open Space assets, therefore, any request that relates to a safety issue is investigated and dealt with, according to the agreed timeframes, as stated in Council's Customer Service Charter.

Preventative maintenance actives are essential to the protection of the asset and the users of the space. This type of maintenance is vital to meet compliance and regulatory standards such as the maintenance on all of our playgrounds areas.

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and need immediate repair to make it operational again. It may be either planned where works are programmed in or cyclic in nature or reactive in response to storm damage, vandalism etc.

Table 7.1: What are our Maintenance Activities and the frequency we undertake them

Activity	Regional	District	Local
Irrigation	Six Monthly	Annually	As Required
Playground Inspections – Visual	Quartey	Quarterly	Quarterly
Playground Inspections – Safety Checklist	Annually	Annually	Annually
Repainting/oiling of timber infrastructure items including seats, fences,	Annually	Bi-Annually	As required
Tree Maintenance	As required	As required	As required

Adjusting Levels of Service

The opportunity to adjust the level of service provided is primarily through two options in the Open Space class.

- Decreasing the amount of maintenance either in a specific group of parks or generally overall.
- Decreasing the number of operational tasks, required in some of the least used parks.

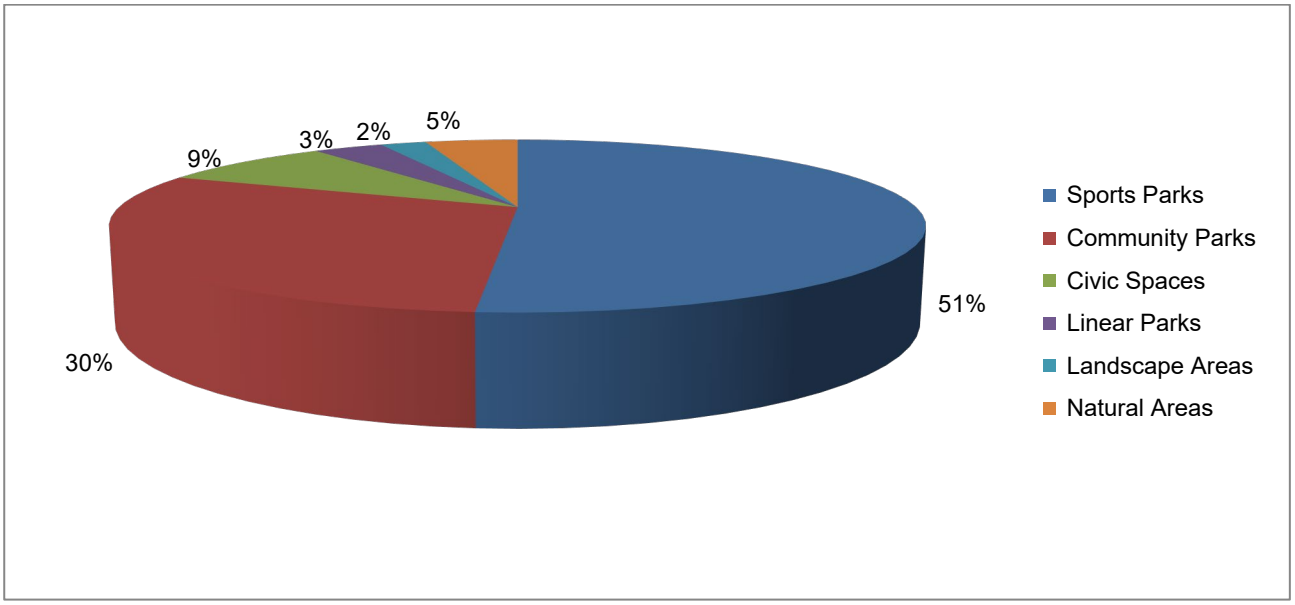
This could include such activities as reduced mowing cycles for some parks, cleaning frequencies of BBQs and picnic tables, and reducing the amount of assets in a category of park.

The consequence of doing either of these (or a combination of both options) in order to reduce expenditure is an expected increase in customer complaints as the areas are not being maintained to the same standard as the user has come to expect. This would have a negative effect on Council's reputation and as such public consultation is necessary before changing the Levels of Service that Council has adopted.

Table 7.2: What are our Maintenance Costs ($,000)

Item	Budget – Average over 10 years
Sports Parks	288
Community Parks	169
Civic Spaces	48
Linear Parks	19
Landscape Areas	13
Natural Areas	25
Total	**562**

Figure 7.1: What is the breakup of our Maintenance Costs



8. Capital Renewal / Rehabilitation

This includes work on an existing asset to replace or rehabilitate it to a condition that restores the capability of the asset back to that which it had originally. The intervention level and estimated useful lives are contained in Table 5.1.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than the full replacement cost.

This Asset Management Plan contains an analysis based on broad assumptions and best available knowledge to date. Modelling is not an exact science, so we deal with long term averages across the entire asset stock. Work will continue on improving the quality of our asset registers and systems to increase the accuracy of our renewal models.

The Strategic Asset Management (SAM) module through Authority is the asset management program used by Council has expected useful lives for each open space asset. These useful lives are based on industry standards and then adjusted where relevant to align with local conditions (eg. dry & hot summers, no threat of degradation by salt air). A snapshot of expected useful lives for the open space assets are found at Table 5.1 above.

The component renewal list is generated via a mixture of condition inspections, remaining life of the asset and what the modelling from the Strategic Asset Management system identifies. The open space assets that are proposed for their renewal will be further inspected to ensure that the remaining life and condition are accurate, and a preliminary estimate for renewal can be forecast. Verified proposals are ranked by priority and available funds are scheduled in future works programmes.

Details of planned renewal activities proposed in the current Delivery Program are contained in Appendix B for each asset category. The first year of the program will be considered in the development of the next Operational Plan and the remaining 3 years of work will be assessed each year to confirm that the asset has reached its intervention level prior to the work being scheduled.

The costs presented in the following table identifies the current level of funding for the required renewal programs and the funding required to maintain the asset to what is considered an appropriate standard. The required funding in that table is based on the intervention specified in Section 5.

For this asset group, an analysis has been undertaken to determine assets that are already at or above intervention level that are not able to be funded in the next Operational Plan. This work is quantified in the 'Backlog' column.

Table 8.1: What are our Renewal Costs, Gap and Backlog (2021 $,000)

Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Art\Memorial	9	9			
Furniture	2	2			
Structure	18	39	21	209	209
Electrical	99	119	20		200
Field	61	85	24		241
Landscaping	62	70	9		85
Playground	110	130	20		200
Total	**361**	**454**	**93**	**209**	**935**

The following graphs show the proposed expenditure on renewals over the next 10 years and the rolling backlog in any one year over that period. Two graphs are presented due to the high impact of the rolling backlog. Figure 8.1 indicates that, based on current projections, Council will spend nearly $361,000 per annum on renewals.

Figure 8.1: What will we spend (2021 $,000) over the next 10 years on Renewal

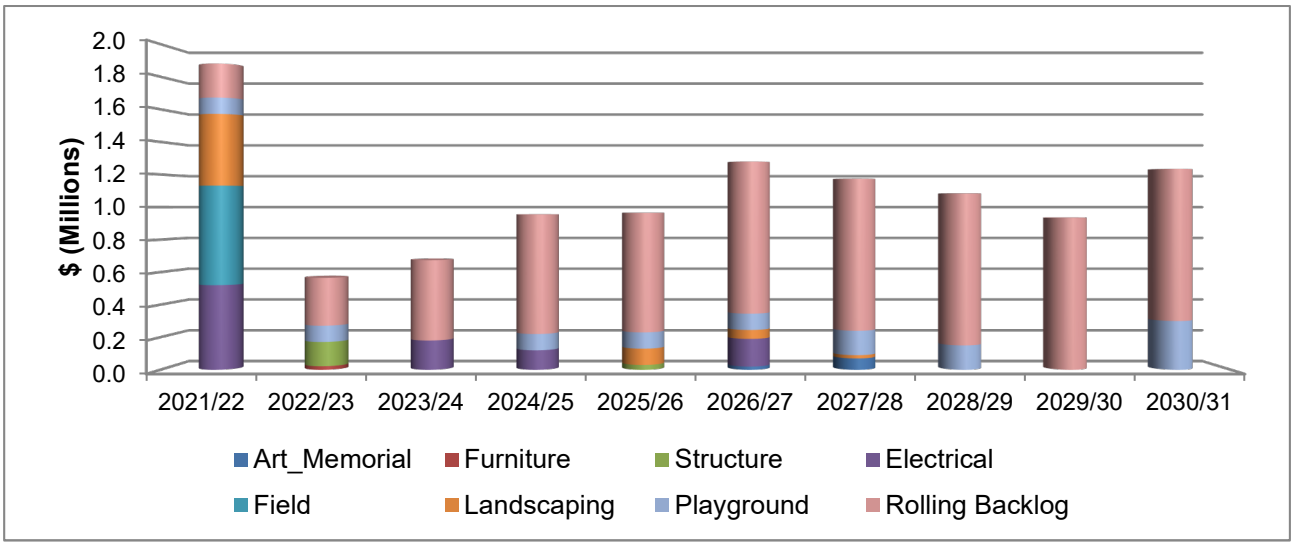
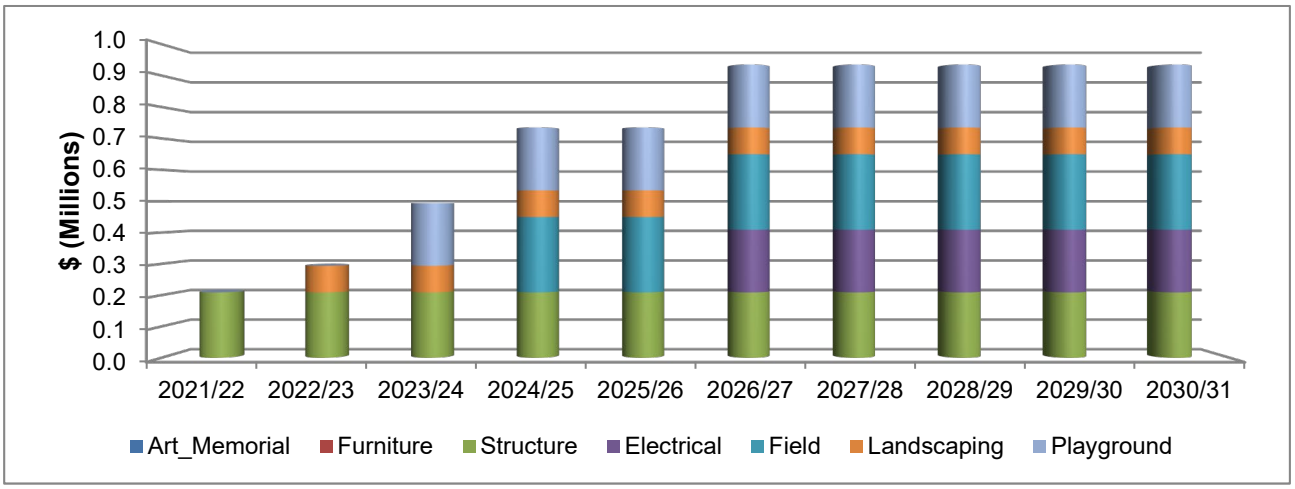


Figure 8.2 indicates that in any year the value of work exceeding the intervention levels set in this Asset Plan will reach $935,000 at the end of 10 years. However, from Table 8.1, when considering the renewals required over the next 10 years, an additional $93,000 per year would be required to ensure no backlog of works in 2030/31.

Figure 8.2: What are the projected rolling backlog splits ($,000)



Lifecycle costs

The lifecycle costs are determined based on the total cost of ownership of each asset including operations, maintenance, renewal and disposal costs. The ten (10) year average annualised lifecycle costs for each component is presented in table 8.2 – depending on information available, may need to apportion the maintenance and operating costs.

Life Cycle costs (or Whole of Life Costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and annual average asset renewal expense.

Life cycle costs can be compared to current life cycle expenditure to give an indicator of life cycle sustainability in service provision. Life cycle expenditure includes current maintenance and capital renewal expenditure. Over time, actual renewal expenditure will vary depending on the timing of asset renewals.

A gap between long-term life cycle costs and long-term life cycle expenditure gives an indication as to whether Council's assets are currently being serviced adequately. The purpose of this plan is to identify levels of service that the community needs and can afford and develop the necessary Long Term Financial Plans to provide the service in a sustainable manner.

Currently with the way that the modelling is set up the lifecycle costs cannot be established at this point in time and will be part of our future development for this AMP.

Table 8.2: What are our Lifecycle Costs (to be developed in next revision)

Category or Component	Units	Rate	Annual Average

9. Capital Upgrades & New Assets

Upgrades enhance an existing asset to provide a higher level of service, for example installation of a new Playground or Grandstand. New assets are those created to meet an additional service level requirement or increase the size of a network, for example, new land acquisitions, or extension of the Open Space network.

The requirements for new assets may result from growth, social or environmental needs. The impact from growth is included in the demand analysis within the Asset Management Strategy.

Section 7.11 Contributions or Development contributions are payments or in-kind works, facilities or services provided by developers towards the supply of infrastructure required to meet the future needs of a particular community, of which the development forms part.

Levies can be raised through Development Contributions Plans (DCPs) for a range of State and local government-provided infrastructure including roads, public transport, storm water and urban run-off management systems, open space and community facilities.

Both capital types may be funded at least in part through Developer Contributions in the form of a Section 64 or s7.11 Contribution, a Voluntary Planning Agreement, or as part of a subdivision development.

Selection criteria

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

Council has developed a framework for the prioritisation of capital projects and that information is used in the consideration of all new projects above the threshold set in the framework. Included in the analysis is the identification of life cycle costs as outlined in the Asset Management Strategy.

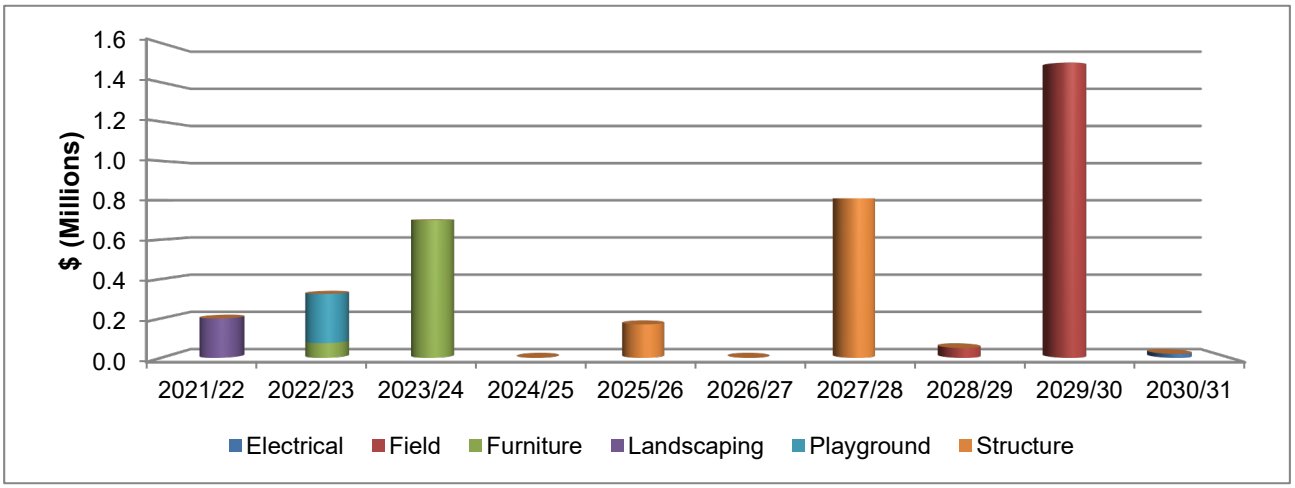
Council has an adopted strategy for the expansion of Open Space assets with the following new / upgraded assets proposed over the next 10 years to meet demand and safety improvement requirements. Table 9.1 indicates the major projects and groups of new / upgraded assets proposed, a complete list is contained in Appendix C.

Table 9.1: What upgraded / new assets are proposed over the next 10 years ($)

Project	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects					
Allan Bull Reserve - Install irrigation on the sports ground	200,000				200,000
Allan Bull Reserve - Install spectator seating at the sports ground		75,000			75,000

Project	2021/22	2022/23	2023/24	2024/25	Total
Lake St Clair - Construct a playground area		250,000			250,000
James Cook Park - Install tiered seating and shade for spectators at AFL/ Cricket			700,000		700,000
Total Funded	**200,000**	**325,000**	**700,000**		**1,225,000**
Unfunded Projects					
Lake St Clair - Install an RV Dump Point			70,000		70,000
New Sportsground - Random Location by 2023			2,000,000		2,000,000
Total Unfunded			**2,070,000**		**2,070,000**

Figure 9.1: What will we spend over the next 10 years on Upgraded or New Assets ($,000)



10. Disposal Plan

Disposal is any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets with a condition rating of 5 (poor condition), where Council has received no contact through the Customer Request System indicating that the community don't require the asset (as they have raised concerns or complaints about the asset condition) may be considered to be a redundant asset or not utilised and therefore decommissioned and disposed unless it is considered critical infrastructure

Table 10.1: What assets are we planning to dispose of

Asset	Reason	Year	Cost
BBQ with shelter at Harry George Reserve	No longer required	2024	$7,000

11. Financial Plan

As part of its funding strategy, Council has the option to supplement any or all of the current or new Open Space proposals that come into consideration for construction with borrowings. This strategy is heavily influenced by the monitoring of Councils Debt Service Ratio which is the capacity of Council to repay principal and interest.

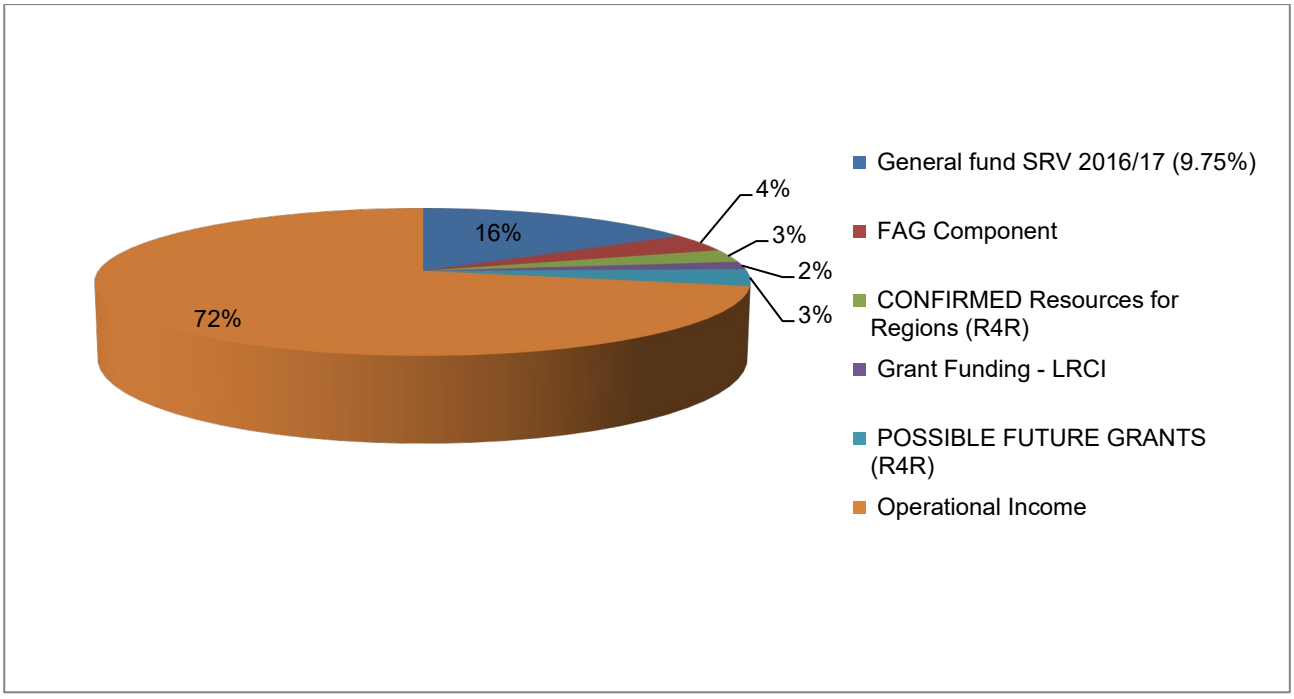
A summary of the funding requirements and expenditure over the next 10 years is included in Appendix D, with the projected budget amounts being based on 2021 dollars increased for growth by 0.9% per annum.

Funding for management of assets can come from a variety of sources as detailed in the table below.

Table 11.1: Where does our Income come from ($,000)

Item	Budget ($)
General fund SRV 2016/17 (9.75%)	426
FAG Component	101
CONFIRMED Resources for Regions (R4R)	73
Grant Funding - LRCI	44
POSSIBLE FUTURE GRANTS (R4R)	95
Operational Income	1,872
Total	**2,610**

Figure 11.1: What is the breakup of our income streams



12. Plan Improvements

In addition to the Asset Management Strategy improvements, the following items outline proposed improvements to the way in which open space assets are managed. It is expected that this will be an ongoing process, as part of good asset management practice is to continually review and improve the methodology used.

Also, there is a general improvement plan in place for asset management framework PM20_80014 - Asset Management Framework Improvement plan.

Table 12.1 How we will improve our AMP

Plan Improvement	Timeframe
Develop catalogue for renewal unit rates for open space components	June 2022
Updating condition assessment manual	May 2022
Finalising strategic modelling of open space asset class	June 2022
Develop register for management plans and master plans for open space assets	June 2022
Updating and adding condition of assets against financial attribute (CVR)	June 2022
Check financial coding of CVR and relocate the assets to the appropriate category	June 2022
Developing planned maintenance program	June 2023
Ongoing maintenance of asset register	On going
Develop method for reporting on Lifecycle costs	May 2022

It must be noted that these items are part of a continual process and need to be reviewed on a yearly basis as to progress and validity.

13. Risk Management Plan

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan is being re-developed which includes the management of risks for each of its assets. From this Plan the following key Risks have been identified: Full risk register of Infrastructure Services can be viewed at CM9 record 18/8934.

The key Risks identified in this Plan are summarised in the following Table 13.1.

Table 13.1 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
Failure of critical asset in the open space asset class	injury/fatality damage to reputation loss of amenity for community litigation loss of service	9	Defining level of service Ongoing monitoring of condition of assets

One of the outcomes of this assessment is the determination of **Critical Assets.** Critical assets are specific assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenance activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Criticality can be assessed by applying broad assumptions about the implications of failure, for example, whether the non-availability of an asset would have a significant impact on the local or possibly the national economy. Using this approach, simple criteria can be defined to assess the loss of service. For example, the loss of use of an Open Space asset may:

- affect or disconnect specific parts of a community,
- affect sporting groups or businesses of different sizes and significance, and
- affect specific numbers of users to the space.

The factors in table 13.2 have been used to determine the most critical assets, with those scoring more than 6 being listed in table 13.3.

Table 13.2 Criticality Ranking

Asset Class	Asset Category	Critically Ranking	Criticality Definition
Open space And Reserve	Parks, Sport, Cemetery		
		Very High (4)	Loss of asset would cause **significant** disruption. Legislative requirements need to be met.
		High (3)	Loss of asset would cause **some** disruption. Often associated with historical significance, tourism or major sporting venues.
		Medium (2)	Loss of asset would cause **minor** impact.
		Low (1)	Loss of asset would have **virtually no** impact. Often natural areas with no impact on people, sport or tourism.

Table 13.3 Critical Assets

Asset Number	Open Space and Reserves	Location	Criticality Ranking	Comments
46380	Sport	Civic Park	4	Emergency helicopter landing pad
48201	Cemetery	Jerrys Plains Cemetery	4	
48311	Cemetery	Sedgefield Cemetery	4	

Appendix A- Maintenance Programme and Schedule

These are currently being developed and are part of the improvement plan for this document.

Appendix B: Renewal

Art/Memorial ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Total Funded						
Unfunded Projects						
Total Unfunded						

Furniture ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Lake St Clair - Replacement woodfire BBQs - Condition 5	Condition		22,000			22,000
Total Funded			**22,000**			**22,000**

Structure ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Lake St Clair - Replacement of picnic shelters at the site	Strategy		22,000			22,000
Clydesdale Reserve - Replacement of picnic shelters - Condition 5	Condition		37,000			37,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Jerrys Plains Cemetery - Replacement of fencing - Condition 5	Condition		80,000			80,000
Sedgefield Cemetery - Replacement of fencing - Condition 5	Condition		10,000			10,000
Total Funded			**149,000**			**149,000**
Unfunded Projects						
Burdekin Park - Replacement/ refurbishment of existing shade structures with new improved ones	Strategy	209,000				209,000
Total Unfunded		**209,000**				**209,000**

Electrical ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Howe Park - Lighting Upgrade (R4R)	Mandate	350,000				350,000
Alroy Oval - Improvement to sports lighting (R4R Grant)	Mandate	170,000				170,000
Allan Bull Reserve - Improve and add to the lighting of the sports grounds	LoS			180,000		180,000
Burdekin Park - Installation of lighting	Strategy				120,000	120,000
Total Funded		**520,000**		**180,000**	**120,000**	**820,000**

Field ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Howe Park - Turf renovations (R4R Grant)	Mandate	611,749				611,749
Total Funded		**611,749**				**611,749**
Unfunded Projects						
Lake St Clair - Upgrade to campsites - Stage 1	Strategy				240,685	240,685
Total Unfunded					**240,685**	**240,685**

Landscaping ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Baileys Union Park - completion of stage 2 beautification of park area entry		440,000				440,000
Total Funded		**440,000**				**440,000**
Unfunded Projects						
Townhead Park - Sensory Garden Rejuvenation	Strategy		85,000			85,000
Total Unfunded			**85,000**			**85,000**

Playground ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Robins Park - Playground Replacement	LoS	100,000				100,000
Alroy Oval - Playground Replacement	Condition		100,000			100,000
Jim Johnstone Park - Playground Replacement	Condition				100,000	100,000
Total Funded		**100,000**	**100,000**		**100,000**	**300,000**
Unfunded Projects						
Civic Park - Playground Replacement	LoS			100,000		100,000
James Cook Park - Playground Replacement	LoS			100,000		100,000
Total Unfunded				**200,000**		**200,000**

Appendix C: Upgrade / New Capital Works Program ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Funded Projects												
Allan Bull Reserve - Install irrigation on the sports ground	LoS	200,000										200,000
Allan Bull Reserve - Install spectator seating at the sports ground	LoS		75,000									75,000
Lake St Clair - Construct a playground area	Strategy		250,000									250,000
Burdekin Park - Large picnic shelter adjacent to the playground for gatherings and celebrations with power and water	Strategy					100,000						100,000
Burdekin Park - 2 new picnic shelters next to existing ones	Strategy					70,000						70,000
James Cook Park - Install tiered seating and shade for spectators at AFL/ Cricket	LoS			700,000								700,000
Burdekin Park - Install 2 Rose Arbours at Highway entry and Bourke St entry	Strategy							60,000				60,000
Investigation - Combined Horse Sports Location	Strategy								50,000			50,000
James Cook Park - Masterplan completion	Strategy									1,500,000		1,500,000
Lake St Clair - Construct a pontoon near the boat ramp	Strategy							750,000				750,000
Allan Bull Reserve - Installation of lighting at Skate Park	LoS										20,000	20,000
Total Funded		**200,000**	**325,000**	**700,000**		**170,000**		**810,000**	**50,000**	**1,500,000**	**20,000**	**3,775,000**
Unfunded Projects												
Lake St Clair - Install an RV Dump Point	Strategy			70,000								70,000
New Sportsground - Random Location by 2023	Strategy			2,000,000								2,000,000
James Cook Park - Spirit of Anzac Memorial walk	Strategy										950,000	950,000
James Cook Park - Increase in netball courts	Strategy							1,095,116				1,095,116
Combo Lane - River walk from Cook Park to Combo lane incl a pedestrian bridge to Col Fisher	Strategy										3,991,764	3,991,764
Total Unfunded				**2,070,000**				**1,095,116**			**4,941,764**	**8,106,880**

Appendix D: 10 Year Financial Plan (2021 $)

Item	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Average
Income											
General fund SRV 2016/17 (9.75%)	(509)	(161)	(50)	(100)	(270)	(245)	(900)	(200)	(1,500)	(320)	(426)
FAG Component	(195)	(85)	(131)	(120)	(230)	(100)	(150)	0	0	0	(101)
CONFIRMED Resources for Regions (R4R)	(727)	0	0	0	0	0	0	0	0	0	(73)
Grant Funding - LRCI	(440)	0	0	0	0	0	0	0	0	0	(44)
POSSIBLE FUTURE GRANTS (R4R)	0	(250)	(700)	0	0	0	0	0	0	0	(95)
Operational Income	(1,710)	(1,844)	(1,777)	(1,814)	(1,751)	(1,888)	(1,925)	(1,964)	(2,003)	(2,043)	(1,872)
Total Income	**(3,581)**	**(2,340)**	**(2,659)**	**(2,034)**	**(2,251)**	**(2,233)**	**(2,975)**	**(2,164)**	**(3,503)**	**(2,363)**	(2,610)
Operations											
Sports Parks	614	627	639	652	665	678	692	706	720	734	673
Community Parks	359	367	374	381	389	397	405	413	421	429	393
Civic Spaces	102	104	106	108	110	112	114	117	119	121	111
Linear Parks	41	41	42	43	44	45	46	47	48	49	45
Landscape Areas	27	27	28	28	29	30	30	31	31	32	29
Natural Areas	54	55	56	57	59	60	61	62	63	65	59
Total Operations	**1,197**	**1,221**	**1,245**	**1,270**	**1,295**	**1,321**	**1,348**	**1,375**	**1,402**	**1,430**	1,310
Maintenance											
Sports Parks	263	269	274	279	285	291	296	302	308	315	288
Community Parks	154	157	160	163	167	170	173	177	180	184	169
Civic Spaces	44	44	45	46	47	48	49	50	51	52	48
Linear Parks	17	18	18	18	19	19	20	20	20	21	19
Landscape Areas	11	12	12	12	12	13	13	13	13	14	13
Natural Areas	23	24	24	25	25	26	26	27	27	28	25
Total Maintenance	**513**	**523**	**534**	**544**	**555**	**566**	**578**	**589**	**601**	**613**	562
Renewals											
Art Memorial	0	0	0	0	0	20	70	0	0	0	9

Electrical	520	0	180	120	0	170	0	0	0	0	99
Field	612	0	0	0	0	0	0	0	0	0	61
Furniture	0	22	0	0	0	0	0	0	0	0	2
Landscaping	440	0	0	0	100	55	20	0	0	0	62
Playground	100	100	0	100	100	100	150	150	0	300	110
Structure	0	149	0	0	30	0	0	0	0	0	18
Total Renewal	**1,672**	**271**	**180**	**220**	**230**	**345**	**240**	**150**	**0**	**300**	361
Upgrade / Expansion											
Electrical	0	0	0	0	0	0	0	0	0	20	2
Field	0	0	0	0	0	0	0	50	1,500	0	155
Furniture	0	75	700	0	0	0	0	0	0	0	78
Landscaping	200	0	0	0	0	0	0	0	0	0	20
Playground	0	250	0	0	0	0	0	0	0	0	25
Structure	0	0	0	0	170	0	810	0	0	0	98
Total Upgrade / Expansion	**200**	**325**	**700**	**0**	**170**	**0**	**810**	**50**	**1,500**	**20**	378
Total Expenditure	**3,581**	**2,340**	**2,659**	**2,034**	**2,251**	**2,233**	**2,975**	**2,164**	**3,503**	**2,363**	**2,610**

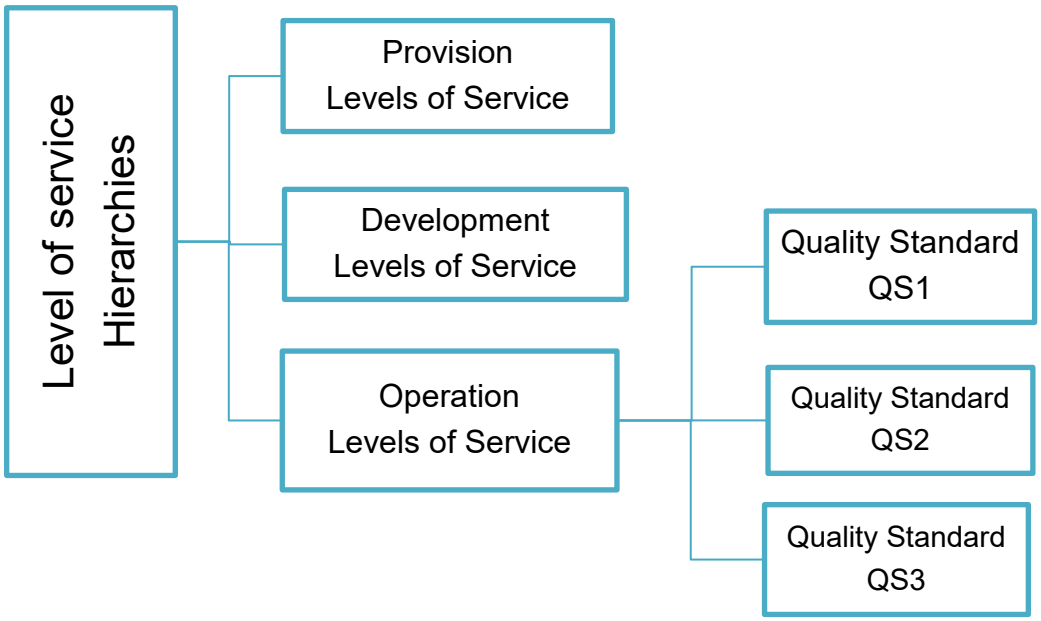
Appendix E: Summary of Level of Service at Community and Technical level

LEVELS OF SERVICE HIERARCHY

To ensure that levels of service are used by all disciplines within the Open Space and Reserves area, and so that they influence all decisions to do with Open Space and Reserves asset management, the level of service will be documented on the following framework.

Each level of the framework assists in governing the levels of service. The quality standards determine the level of priority/ quality and asset provision for each park.

This structure supports the decision for community and level of service



PROVISION LEVELS OF SERVICE

These define the amount and type of land provided within the Open Space and Reserve hierarchy, as well as the characteristics of the land provided. In addition, provision levels of service will also define distribution, such as distance that a resident should reasonably be expected to travel to access a particular park. The information in this section supports the decisions for the **Capacity/utilisation** of the assets.

In the tables below are the provisions set against each hierarchy other than the category of landscape. Landscape includes road reserves and existing small parcels of open space which provide amenity to residents with minimal infrastructure and are provided on an as needs basis.

SPORTS PARKS			
Type	**District Level**	**Village Level**	**Local Level**
Land Area	0.7ha/ 1,000	One in every village	0.4ha/1,000
Park Catchment	2km	10km	1km
Size	5 – 10ha	5ha	2ha
Shape	To maximise the area available for playing fields, a polygon shape to cater for a variety of sports, is considered most efficient. Fields and courts to be as close to north/south configuration as possible and no further than 15 deg from north/south		
Road Frontage	At least 25% of the park perimeter to have direct road frontage on a collector road or higher	At least 25% of the park perimeter to have direct road frontage	At least 25% of the park perimeter to have direct road frontage
Gradient	Maximum gradient of 1:100	1:80 for all playing surfaces	1:80 for all playing surfaces

Sports Parks Provisions[1]

COMMUNITY PARKS			
Type	**Regional Level**	**District Level**	**Local Level**
Land Area	0.6ha/ 1,000	0.5ha/ 1,000	0.4ha/1,000
Park Catchment	50km	2km	750m
Size	5+ha	2 – 5ha	0.5 – 2ha
Road Frontage	30-50% of the park perimeter to have direct road frontage on a collector road.	30-50% of the park perimeter to have direct road frontage on a collector road.	30-50% of the park perimeter to have direct road frontage.
Historical Significance	State historical significance	Local significance	No significance
Biodiversity Significance	High level of biodiversity	Medium level of biodiversity	Low level of biodiversity

Community Parks Provisions

LINEAR PARKS	
Land Area	No minimum standard set
Park Catchment	No minimum standard set
Size	1 – 5km
Road Frontage	Up to 10% of the park perimeter to have direct road frontage.
Historical Significance	No significance
Biodiversity Significance	High level of biodiversity

1 Based on DOPs Recreation and Open Space Planning Guidelines for Local Government)

Linear Parks Provisions

NATURAL AREAS			
Type	**Regional Level**	**District Level**	**Local Level**
Land Area	0.6ha/ 1,000	0.5ha/ 1,000	No minimum standard set
Park Catchment	Singleton LGA and beyond	No minimum standard set	No minimum standard set
Size	5+ha	2 – 5ha	0.5 – 2ha
Road Frontage	30% of the park perimeter to have direct road frontage.	20% of the park perimeter to have direct road frontage.	10% of the park perimeter to have direct road frontage.
Historical Significance	State historical significance	Local significance	No significance
Biodiversity Significance	High level of biodiversity	Medium level of biodiversity	Medium level of biodiversity

Natural Areas Provisions

DEVELOPMENT LEVELS OF SERVICE

These define the range of assets provided, their quality and quantity. They will vary between Open Space and Reserves asset categories and the number, quality and range of assets will decrease or increase depending on the quality of the site. Each type of asset should be listed, and then either around quality and quantity where that particular asset type is appropriate for the given park hierarchy (and quality standard).

By defining a range of assets, the expected park provisions generally provided at each quality standard for park categories is shown below in Table 10. It should be noted that some provisions are not necessary in some park locations due to proximity or nature of the park. The information in this section supports the decisions for the **Capacity/utilisation** of the assets

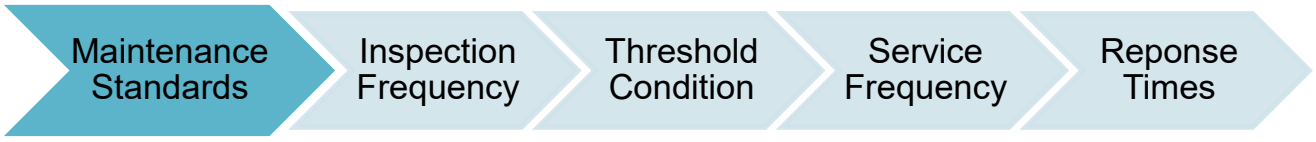
	Sports Parks			Community Parks			Civic Spaces		Linear Parks	Landscapes		Natural Areas		
Level of park	**District**	**Local**	**Village**	**Regional**	**District**	**Local**	**Regional**	**District**	**Local**	**Pocket Parks**	**Road Reserves**	**Regional**	**District**	**Local**
Amenities	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N
BBQ	N	N	Optional	Y	Y	N	N	N	N	N	N	Y	Y	N
Bike Racks	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Bubblers	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Bushland	N	N	N	N	N	N	N	N	Optional	Optional	N	Y	Y	Y
Cricket nets	Optional	Optional	Optional	N	N	N	N	N	N	N	N	N	N	N
Dog Tidy Bin	Optional	Optional	Optional	Optional	Optional	Optional	N	N	Optional	N	N	N	N	N
Fencing - Playground	N	N	N	Y	N	N	N	N	N	N	N	N	N	N
Fencing - Sports Field	Y	N	N	N	N	N	N	N	N	N	N	N	N	N
Fencing - Perimeter	Optional	Optional	Optional	N	Optional	N	N	N	N	Optional	Optional	Optional	Optional	Optional
Flagpoles	Optional	N	Optional	Optional	Optional	N	Optional	N	N	N	N	Y	N	N
Floodlighting	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N
Garden Beds	N	N	N	Y	Y	N	Optional	Optional	N	N	N	N	N	N
Goal Posts	Optional	Optional	Optional	N	N	N	N	N	N	N	N	N	N	N
Irrigation	Y	N	N	Y	Y	N	Y	Y	N	N	N	N	N	N
Monument/Public Art	Optional	N	Optional	Optional	Optional	N	Optional	Optional	N	N	N	N	N	N
Outdoor Exercise Equipment	Optional	Optional	Optional	Optional	Optional	N	N	N	Optional	N	N	N	N	N
Park Lighting	N	N	N	N	N	N	Y	Optional	Optional	N	N	Optional	N	N
Parking (Off Street)	Y	N	Y	Y	Y	N	N	N	N	N	N	Optional	Optional	N
Playground	N	N	N	Y	Y	Y	N	N	N	N	N	Y	N	N
Playing fields/surfaces	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N
Picnic Table	Optional	Optional	Optional	Y	Y	Y	Y	Y	N	N	N	Y	Y	N

Power Outlets	Optional	Optional	Optional	Optional	Optional	N	Optional	Optional	N	N	N	Optional	N	N
Public Toilets	Y	N	Y	Y	Y	N	Y	N	N	N	N	Y	Y	N
Rubbish Bins	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	N
Seating	N	N	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N
Skate Facilities	N	N	N	Optional	Optional	Optional	N	N	N	N	N	N	N	N
Shared Paths	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Optional	Optional	Optional	N
Shelters	Optional	Optional	Optional	Y	Y	Y	Y	Y	N	N	N	Y	Y	N
Softfall	N	N	N	Y	Y	Y	N	N	N	N	N	Y	N	N
Spectator Seating	Y	N	Optional	N	N	N	N	N	N	N	N	N	N	N
Trees	Optional	Optional	Optional	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Turf	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Water Supply	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N

OPERATIONS LEVELS OF SERVICE

Each open space and reserve hierarchy (and quality standard) should have unique provision and development level of service associated with them, however the operation levels of service may be common across one or more open space and reserve categories.

By considering the park categories, quality standard, provisions and development levels of service outlined above, Council are able to schedule how and when parks and facilities are maintained and operated in accordance with Maintenance Standards. These will include routine operational tasks, scheduled and reactive maintenance tasks and inspections which will be performed to differing standards according to the type, location, condition or usage of the asset.



Council will be responsible for the care and preservation of the open spaces and the included development to ensure they are always functional, safe for the public and their condition remains at that specified.

Assets are maintained by performing a range of defined activities which may include but are not limited to the following:

- Weeding
- Cleaning
- Plant Maintenance
- Mowing
- Repairs
- Painting
- Reporting

The information in this section supports the decisions for the **Function** of the assets

QUALITY STANDARDS

A further sub-category based on the level of utilisation determines the level of priority/ quality and asset provision for each park. Below table outlines a description for each standard in each park hierarchy. The higher the utilisation, the higher the level of priority and asset provision.

Name	Level of use	Description
Quality Standard 1	High	**High** level of utilisation and/or exposure This standard has the highest level of asset provision, using quality material and bespoke designs. Maintenance is undertaken to the highest affordable standards, with quick response times and proactive programmed operations.
Quality Standard 2	Medium	**Medium** level of utilisation and/or exposure This standard has a moderate level of asset provision, using robust materials and simple designs. Maintenance is undertaken to good standards, with standard response times and programmed operations.
Quality Standard 3	Low	Relatively **low** level of utilisation and/or exposure This standard has the lowest level of asset provision, using robust materials and simple designs. Maintenance is undertaking to the lowest standard, with longer response times and fewer programed operations.

Description of Priority Standards

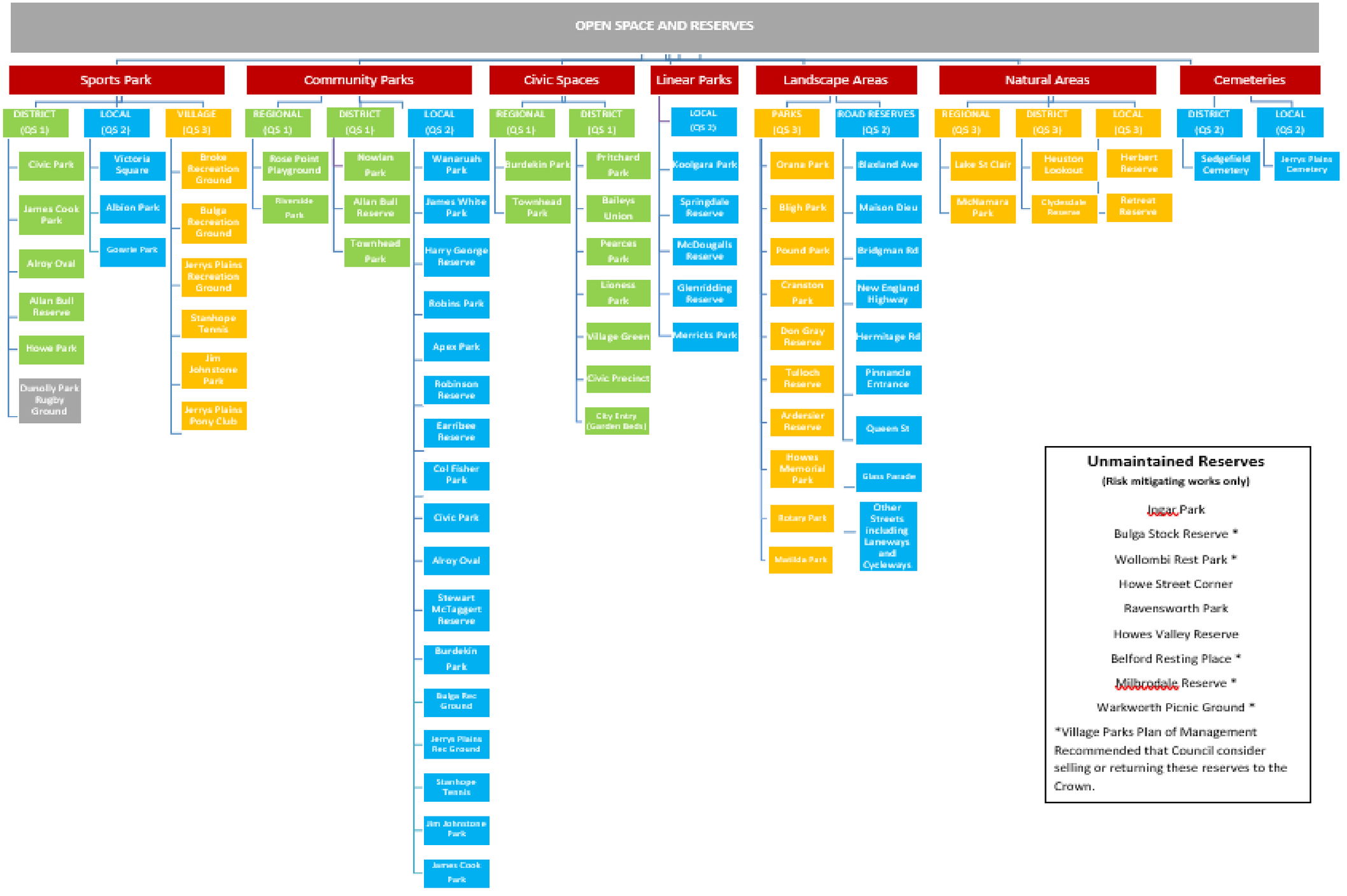
From these quality standards Council can set each type of park against the standard required. A regional park is a one of the highest levels within each hierarchy, therefore within each Open Space and Reserve hierarchy it is expected that park will be maintained at a very high level of service. Setting these parks against each standard allows for the operational staff to undertake maintenance within the park based on these standards that are set. Below is a description of the quality standards and what type of park would best suit these standards.

Open Space and Reserves Hierarchies	Quality Standard	Description
Community Parks	Quality Standard 1	A **regional** community park which attracts people from across the city and beyond due to its uniqueness and opportunity offered. A large range of high quality assets provided and maintained to the highest standard.

Sports Parks	Quality Standard 1	A **district** park is a well developed park of substantial size offering a broad range of quality recreation opportunities. It may be walking distance, but not necessarily. The majority of people will drive to the park.
	Quality Standard 2	A **local** park used by residents within walking distance of their home. Few basic quality assets provided, and maintained to a basic standard
	Quality Standard 1	A **district** sports park used by the highest grades of competition sport or high levels of use. A large range of high quality assets provided and maintained to the highest standard
	Quality Standard 2	A **local** park catering for lower grades of sport and maintained for junior and lower competition. Few basic quality assets provided, and maintained to a standard for junior and lower club competition.
	Quality Standard 3	A **village** sports ground that serves the village and surrounding district with low use and no structured competition.
Linear Parks	Quality Standard 2	Generally a **local** linear reserve designed to be used by locals for walking or riding to a destination within the local area.
Landscape Parks	Quality Standard 3	Primarily **pocket parks** providing local use.
	Quality Standard 2	Primarily high exposure **road reserves** in urban areas which may provide pedestrian and cycleway linkages.
	Quality Standard 3	A **regional** natural area provides a significant and highly utilised setting with environmental value and/or amenity for visitors to enjoy.
Natural Areas	Quality Standard 3	A **district** natural area provides a well utilised setting with environmental value and/or ammenity for visitors to enjoy.
	Quality Standard 3	A **local** natural area provides some environmental value and/or amenity primarily for nearby residents to enjoy.
Civic spaces	Quality Standard 1	A park located within the Central Business District or entrance of the town or village providing high level facilities for **Regional** visitors and maintained to the highest standard

	Quality Standard 1	A park located within the Central Business District or entrance of the town or village providing a moderate level of facilities for **District or Local** visitors

Defining of the quality standards for each hierarchy



Unmaintained Reserves
(Risk mitigating works only)

Inver Park

Bulga Stock Reserve *

Wollombi Rest Park *

Howe Street Corner

Ravensworth Park

Howes Valley Reserve

Belford Resting Place *

Millbrodale Reserve *

Warkworth Picnic Ground *

*Village Parks Plan of Management Recommended that Council consider selling or returning these reserves to the Crown.

ASSET MANAGEMENT PLAN

ROADS

SINGLETON COUNCIL

W singleton.nsw.gov.au

TABLE OF CONTENTS

Document Control					
Rev No	**Date**	**Revision Details**	**Author**	**Verifier**	**Approver**
1	24/08/2021	Draft	NK	ML	DM

Asset Management Plan

1. Executive Summary

Council's intention is to provide the Singleton local government area with a Roads asset class that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Roads asset class had a fair value of **$521 million** on the 30 June 2020.

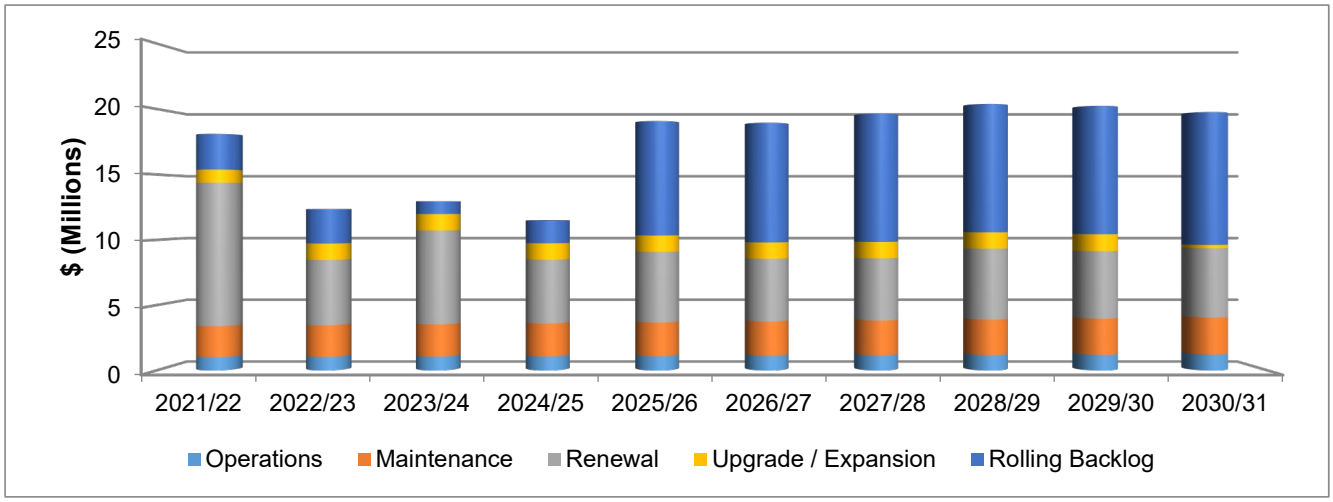
This plan assists Council in the decision-making process and is presented at a high level to provide key information that can used in the determination of levels of service and funding required. Table 1.1 identifies the asset categories in this plan, the ten (10) year average costs and any funding gap between the available renewal budget and predicted renewal requirements. Note that due to the cyclic nature of works, there may be small surpluses in any year that will be required in subsequent years.

Table 1.1: Roads Asset Portfolio Overview (in 2021 $,000)

Asset	Fair Value	Replacement Cost	Available O&M Budget	Planned Capital Renewals	Planned Capital Upgrade & New	Capital Funding Gap	Capital Backlog Year 1	Backlog Year 10	Required O & M
Wearing Surface	37,809	54,734	830	1,676	1,130				700
Pavement incl subbase	159,076	219,512	1,936	2,004		201	2,720	2,010	3,889
Gravel Resheeting	5,218	10,437	842	782					281
Kerb & Gutter	24,049	33,998		64					309
Bridges	30,873	49,967	33	523		740		7,400	455
Major Culverts	7,904	9,904	77	86					90
Safety Barriers	3,756	5,071		7					46
Causeways	2,327	4,316		752		74		740	39
Other (earthworks)	250,298	250,298							
Total	**521,309**	**638,237**	**3,717**	**5,895**	**1,130**	**1,015**	**2,720**	**10,150**	**5,809**

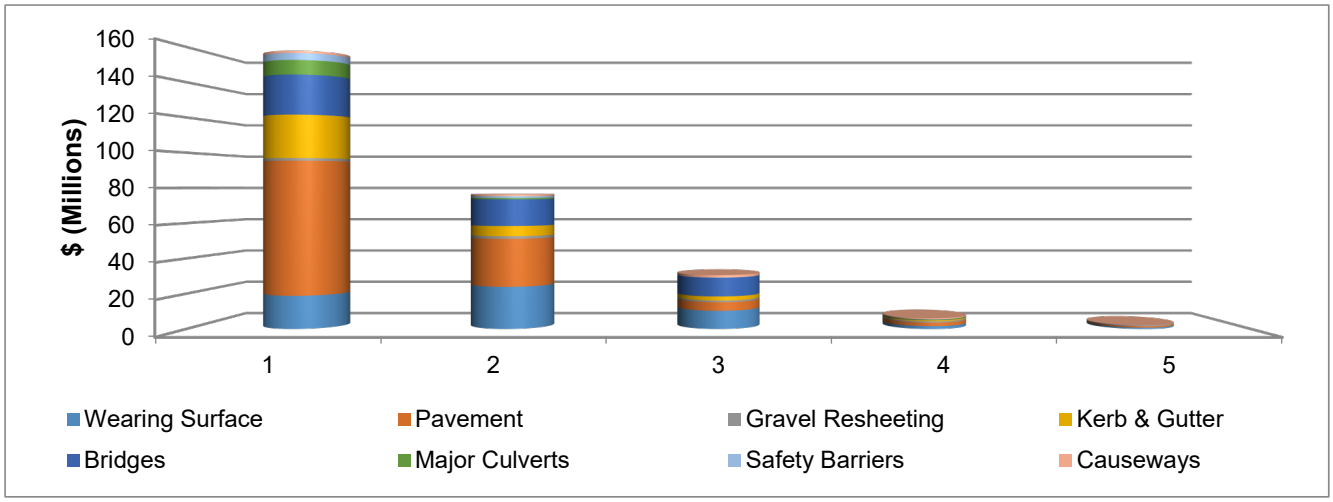
Notes:
The following figure identifies the proposed expenditure over the next 10 years together with the backlog if one exists in any year. The Singleton Roads asset class model indicates $10,150M Renewal rolling backlog over the next 10 years.

Figure 1.1: What will we spend over the next 10 years (2021 $M), and what is unfunded



The current condition of our assets is shown in the following graph based on the value of each asset in each of 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a very poor asset.

Figure 1.2: What condition are our assets in ($M)



The process of managing our Roads assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, and the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level. Section 13 contains details of the assumptions made and plans to further improve the details contained in the next Plan.

2. Strategic Objectives

The 2022-2032 Community Strategic Plan outcomes that are supported by this Roads AMP include:

- Provide safe and well-maintained facilities and infrastructure
- Collaborate to enhance, protect and improve our environment
- Increase the planning and preparedness for natural disasters
- Infrastructure, services, facilities and Council are managed in a financially sustainable way

Singleton Council developed a comprehensive community engagement strategy to ensure a broad range of opinions; ideas and visions were captured to help shape the 2017-2027 Community Strategic Plan. The outcomes & strategies supported by that plan are detailed in the Strategic Asset Management Plan.

To assist in the delivery of the objectives in this plan, a number of key documents & systems have been prepared and should be referred to in considering the findings presented:

Table 2.1: Where can I find additional information

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community
Council Asset Policy	How we manage assets; A document that broadly outlines the principles and mandated requirements for undertaking AM across the organisation in a systematic and coordinated way, consistent with the organisation's strategic plan. It provides the framework for the AM Strategy and AM Plan.
Asset Management Strategy	Overall direction of asset management and portfolio summary' The high-level long-term approach to AM including AM action plans and objectives for managing the assets
Asset Management Manual	Procedures and Processes that guide the management of assets
Level of Service Roads	Levels of service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.
Integrated Risk Management Framework	Coordinated activities to direct and control an organisation with regard to risk.
Civica Asset Management System (AM)	Electronic system that contains the asset register, condition ratings and used to model future renewals

Asset Management Plan

Document / System	Content
Singleton Council Engineering specification	Describe Council's planning, design and construction standards for new infrastructure associated with subdivisions and development works.

3. Services Provided & Classification

Council provides the Singleton and its wider rural community with Roads and Transport infrastructure to enable the safe movement of pedestrians, cyclists, motorists and freight. Footpaths and cycleways are included in the Transportation AMP rather than in this Roads AMP.

The establishment of a hierarchy for roads provides a useful tool for the planning of Roads systems and ensuring the efficient allocation of resources to roads based on maintaining levels of service appropriate to their function within the hierarchy. Council roads asset class and hierarchy consists of:

Asset Class	Asset Category	Description of Service Road Asset Provide
Road	Roads	A road is a thoroughfare, route, or way on land between two places that has been paved or otherwise improved to allow travel by foot or some form of conveyance, including a motor vehicle, cart, bicycle, or horse.
	Bridges	A bridge is a structure that is built to span and provide passage across a physical object such as water, valley, or road/rail.
	Major Culverts	A major culvert is a culvert (or more commonly multiple culverts laid side by side) of large enough size to be treated more like a bridge over a water course than a pipe under a road. A major culvert is defined as a culvert or culverts with a total span of greater than 6m (measured along the direction of the road).
	Causeways	A causeway is a raised carriageway across wet or low areas or across tidal water.
	Safety Barrier	A Safety Barrier a fence or similar structure designed to prevent vehicles from veering off the roadway into oncoming traffic, crashing against solid objects or falling over an embankment. A secondary objective is keeping the vehicle upright while deflected along the guardrail.
	Kerb and Gutter	Kerb & Gutter is a concrete or stone structure typically located at the edge of a road designed to provide road drainage, and as a barrier to prevent vehicles from leaving the road carriageway.

Urban Hierarchy Classes and Parameters			
Road Type	Road Hierarchy	Description	Design Considerations

Urban Hierarchy Classes and Parameters			
	Urban Arterial	Primarily carry through traffic from one region to another.	Direct access for single dwelling allotments is not permitted. Access to multi-unit developments and non-residential land uses are also not permitted.
	Urban Sub-Arterial	Connect the arterial roads to areas of development or carry traffic directly from one part of a region to another.	Direct access for single dwelling allotments is to be discouraged. Access may be provided to multi-unit developments and non-residential land uses (at the discretion of Council).
	Urban Collector	Connect the sub-arterial roads to the local road system in developed areas.	This class of streets have a residential function, but they also carry a higher volume of traffic collected from local streets. A reasonable level of residential amenity and safety is maintained by restricting traffic volumes and speeds. However, amenity & resident safety do not have as high a priority as local streets.
	Urban Local 1	Local roads that allow through traffic and primarily provide access to residential properties and possibly some minor commercial development.	Streets in this class should provide a balance between the status of that street in terms of its access and residential amenity functions. Resident safety and amenity are dominant but to a lesser degree than Urban Local 2 roads. However, they should have features that aid pedestrian and cycle movements.
	Urban Local 2	No through roads that provide access to residential properties (i.e., cul-de-sacs).	The prime consideration with this class of road is to ensure residential space and amenity. They should have features that aid pedestrian and cycle movements. Motorised traffic is subservient in terms of speed and volume, to those elements of space, amenity, pedestrians and cyclists.
	Urban Laneway or UL3	Roads that primarily provide rear access to various land uses.	The main consideration with laneways is to ensure that the type of vehicle that will access the specific land uses can do so safely. Steps should be taken to minimise traffic speed.

Urban Hierarchy Classes and Parameters			
	Urban Low Maintenance	A formed section of Council public roads or a road (sealed or unsealed) that are dedicated to Council but Council elects to maintain it as a low maintained road.	

Rural Hierarchy Classes and Parameters			
Road Type	Road Hierarchy	Description	Design Considerations
	Rural Arterial	Carry through traffic from one region to another. Access to multi-unit developments, non-residential land uses, and single dwelling allotments are at the discretion of the Roads and Maritime Services.	
	Rural Sub-Arterial	Connect the Arterial Roads to areas of development or carry traffic directly from one part of a region to another. Direct access for single dwelling allotments is to be discouraged. Access may be provided to multi-unit developments and non-residential land uses (at the discretion of Council).	
	Rural Collector	Connect the Sub-Arterial Roads to the Local Road system This class of road carry a higher volume of traffic collected from the lower trafficked rural local roads. Residential amenity & safety do not have as high a priority as Rural Local 1, 2 and 3 roads.	
	Rural Local 1	Mostly used as local access roads but allows through traffic Roads in these classes should provide a balance between the status of that road in terms of its access, and residential amenity functions. Resident safety and amenity are the dominant design considerations.	
	Rural Local 2	Mostly used as local access roads but allows a minor amount of through residential traffic. Roads in these classes should provide a balance between the status of that road in terms of its access, and residential amenity functions. Resident safety and amenity are the dominant design considerations.	
	Rural Local 3	No through road used as a local access road. The prime consideration with these classes of roads is to ensure residential space and amenity. Motorised traffic is subservient in terms of speed and volume, to those elements of space and amenity.	

Rural Hierarchy Classes and Parameters		
	Rural Low Maintenance	A formed section of Council public roads or a road (sealed or unsealed) that are dedicated to Council but Council resolves to maintain it as a low maintained road.

Bridge Hierarchy Classes and Parameters		
Bridge Type	**Bridge Hierarchy**	**Description**
Concrete	As per Road Hierarchy and criticality of the assets	Predominately most of the components are made of concrete material.
Timber	As per Road Hierarchy and criticality of the assets	Predominately most of the components are made from timber.
Steel	As per Road Hierarchy and criticality of the assets	Predominately most of the material is of steel construction.

Major Culverts Hierarchy Classes and Parameters		
Major Culverts Type	**Major Culverts Hierarchy**	**Description Design Considerations**
Reinforced Concrete Pipe	As per Road Hierarchy and criticality of the assets	A culvert to is made of either precast of cast in-situ reinforced concrete pipe that is over 6m in length along the road centreline.
Reinforced Concrete Box Culvert	As per Road Hierarchy and criticality of the assets	A culvert to is made of either precast of cast in-situ reinforced concrete box culvert that is over 6m in length along the road centreline.
Arch Design Composite	As per Road Hierarchy and criticality of the assets	A culvert to is made of concrete formed in-situ or precast arch that is over 6m in length along the road centreline.

Causeways Hierarchy Classes and Parameters		
Causeway Type	**Causeway Hierarchy**	**Description**
Elevated Causeway	As per Road Hierarchy and criticality of the assets	A causeway that has been placed on top of a pipe system to allow for the natural flow of water to pass under in normal circumstances.

Causeways Hierarchy Classes and Parameters		
Flat Causeway-Concrete slab	As per Road Hierarchy and criticality of the assets	A causeway that has been placed in the creek crossing bed in which either a small amount of water passes over regularly or is mostly dry in normal circumstances.
Natural beds	As per Road Hierarchy and criticality of the assets	A natural creek crossing bed in which no extra material is placed in the crossing. Passing through it is not advisable, and signage must be obeyed.

The Roads assets had a fair value of $591M and replacement cost of $635M on the 30 June 2020, and details of the major components are contained in Table 3.1 together with their renewal cost.

Table 3.1: What is provided[1]

Asset Class	Asset Hierarchy	Dimension	Total Replacement Cost ($)
Roads	Regional Roads	84.62km	$49,738,100
	Local Sealed Roads	669.52km	$222,081,718
	Unsealed Roads	116.92km	$10,436,940
	Earthworks		$250,298,140
Bridges		62	$49,967,100
Major Culverts		56	$9,904,200
Causeways		67	$4,315,800
Safety Barriers		31.08km	$5,070,621
Kerb and Gutter		194.40km	$33,997,650
Total			**$635,810,269**

[1] * Data in table 3.1 is from the APV 2020 Roads, Drainage and Transportation Valuation Report and Authority Asset Register.

4. Levels of Service and Key Performance Measures

Level of service are key business drivers and influence all AM decisions. Level of service statements describe the outputs the Singleton Council intends to deliver to its community and customers and other stakeholders.

Level of service typically relates to service attributes such as quality, function, and capacity.

Level of service provide the link between higher levels corporate and AM Objectives and more detailed technical and operational objectives. Service levels are defined service levels in two terms, community levels of service

Road's assets have been categorised into classes to assist in the determination of Levels of Service (LOS) which are grouped into:

- Community LOS – relates to how the community receives the service in terms of safety, quality, quantity, reliability responsiveness, cost efficiency and legislative compliance; and
- Technical LOS – are the technical measures of performance developed to ensure the minimum community levels of service are met.

4.1.1 Community Level of Service

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

4.1.2 Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Function:

- Operations – the regular activities to provide services such as, street sweeping, roadside slashing and vegetation control, signage inspections.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition, e.g. road patching, unsealed road grading, building and structure repairs.

Quality:

- Renewal – the activities that return the service capability of an asset up to that which it had originally, e.g. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement.
- Upgrade – 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.

Capacity/Utilisation:

- New service – is the activity to provide an asset that did not exist previously e.g. a new library, new kerb and gutter, new safety barriers.

Table 4.1: Community Level of Service – Quality

Community Levels of Service						Technical Service level					
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Budget (Annual Renewal/capital allocation)**
Quality	Road	Roads are trafficable at all times	Customer Service requests relating to service quality	N/A	N/A	Average condition of road asset	95.80%	% of Assets in condition 3 or better	Renewals	Road re-surfacing Pavement Rehabilitation Heavy Patching	The quality of service will be addressed through annual renewal and capital work program and associated funding for this purpose- Refer to council's annual operational plan for the allocated budget
	Road	Road infrastructure meets hierarchy requirements for traffic volumes, design speed, width, alignment, access etc	Customer service requests relating to signage, delineation, guideposts and guard rails	N/A	N/A	Average condition of roadside asset		% of Assets in condition 3 or better	Renewals	Asset Inspections Sign Maintenance Roadside vegetation Control	
	Bridge and Major Culverts	Accessibility during all typical weather events.	Customer service requests relating to service quality	N/A	N/A	Average condition of bridge asset	78.20%	% of Assets in condition 3 or better	Renewals	Bridge Maintenance	
	Kerb and Gutter	Allow a safe, efficient kerb and gutter system for road users	Customer service requests relating to service quality	N/A	N/A	Average condition of roadside asset	87.80%	% of Assets in condition 3 or better	Renewals	K&G maintenance	
	Causeway	Causeways are safe and accessible during typical weather events	Customer service requests relating to service quality	N/A	N/A	Average condition of roadside asset	72.10%	% of Assets in condition 3 or better	Renewals	Drainage Maintenance	

Table 4.2: Community Level of Service – Function

Community Levels of Service						Technical Service level							
											Budget- (Annual Maintenance allocation)		
Service Attribute	Asset Category	Level of Service Objective/statement	Performance measure process	Current Level of service	Performance Target	Performance measure process	Current Level of service	Performance Target	Expenditure type	Activity	Required Maintenance	Actual	Maintenance Ratio
Function	Road	Roads are smooth, with no potholes or ponding of water and accessible at all times	Customer service requests relating to design issues (e.g. road width)	number hazards identified in maintenance management system (REFLECT)	less than 50 defects requiring priority attention	Annual Average Traffic Counts		% AADT year on year	Maintenance	Road Pavement maintenance Road Marking Maintenance Crack and joints repairs	$4,882,006	$3,405,164	69%
			Or requests for new assets (e.g. overtaking lanes)			Vehicular traffic Accident data		number Accidents < previous year	Maintenance				
		Provide clear signage, delineation and safety barrier.				% compliance with standard		% of Assets by length compliant with standard					
	Bridge and Major Culverts	Bridges and major culverts are well maintained	Customer service requests relating to service function	number hazards identified in maintenance management system (REFLECT)	less than 50 defects requiring priority attention	MMS number of defects identified		Reduction in the number of defects	Maintenance	Routine inspection bridge maintenance	$274,804	$145,049	52.76%
	Kerb and Gutter	Kerb and gutters are well maintained.	Customer service requests relating to Kerb and Gutter	number hazards identified in maintenance management system (REFLECT)	less than 50 defects requiring priority attention	Frequency of sweeping of K&G km's swept/tonnes collected		km's swept/ tonnes collected % of Sweeping schedule completed.	Maintenance/Opex	General Corridor maintenance Sweeping Graffiti Removal Litter and debris removal	$138,593		

	Causeway	Causeways are well maintained.	Customer service requests relating to service function			Average condition of roadside Asset		% of Assets in Condition 3 or better	Maintenance	Routine Inspection	$17,593		
						Incidence of flooding closing Causeway		number of reported flooding less than previous annual average.	Maintenance				

Table 4.3: Community Level of Service – Capacity/Utilisation

Community Levels of Service						Technical Service level						
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**New Asset Expenditure**	**Target Expenditure**
Capacity/ Utilisation	Road	Wide carriageway except where restricted by trees	Customer service requests relating to service capacity		Less than 3 valid complaints per year	Annual Average Traffic Counts		% AADT year on year	New/expanded	Capital Works	30%	$1,104,892
	Bridge and Major Culverts	Bridges are provided to enable usage by light and heavy vehicles And machinery. Appropriate width to traffic type	Service requests relating to Load limited bridges		Less than 3 valid complaints per year	Number of Bridges with Load limits		100% of Bridges meet capacity load limits	New/expanded	Capital Works	10%	$31,773
	Kerb and Gutter	Ability to convey stormwater or stop vehicles from mounting footway	Customer service requests relating to service capacity	Survey indicates that nonconforming height kerbs do exist. These will be programmed for replacement.	Less than 3 valid complaints per year					Capital Works	10%	$36,197
	Causeway	Causeway are provided to enable usage by light and heavy vehicles and machinery.	Customer service requests relating to service capacity		Less than 3 valid complaints per year					Capital Works	0%	$0

5. Condition of Our Assets

Council maintains a Condition Assessment Manual[2] that details the frequency of inspection and condition rating to be used for all assets. This data is recorded in the Council Asset Management System and used to predict the timing of renewal / maintenance requirements in the Long Term Financial Plan.

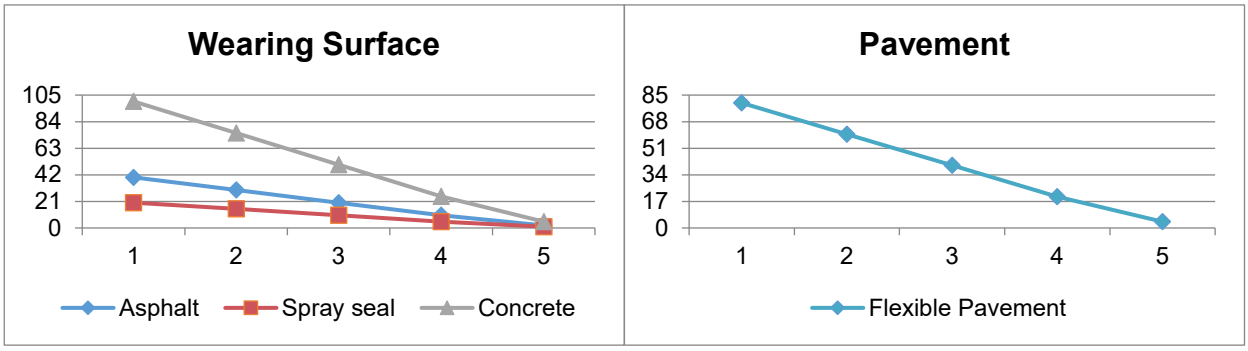
Assets are rated on a 1 (Near New) to 5 (very poor) scale consistent with industry best practice as outlined in the IPWEA International Infrastructure Management Manual. The physical condition of the roads infrastructure is assessed using industry standard practice notes published by the Institution of Public Works Engineers Australia (IPWEA).

The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level', that is the condition at which the community has determined renewal is required based on the LOS analysis. Typically, assets will be renewed between condition 4 & 5 which ranges from fair/poor to very poor depending on their classification.

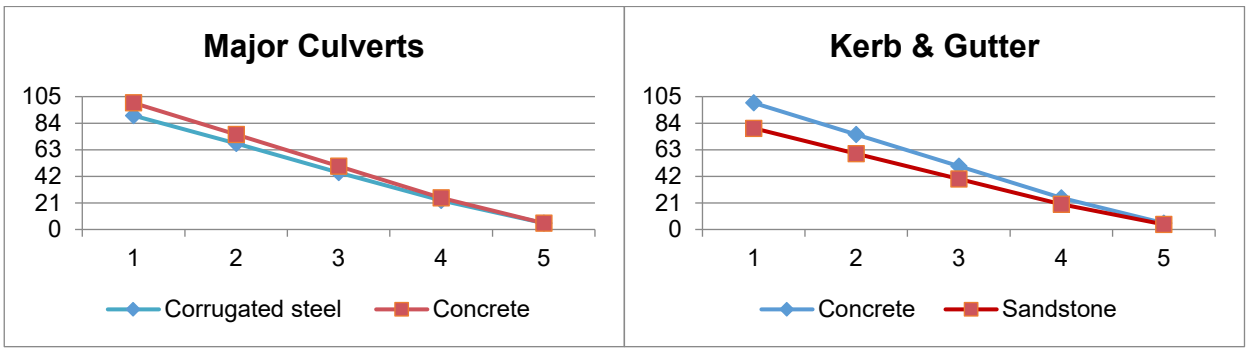
Deterioration profiles have been developed that track the rate of deterioration expected over time for each material type in each asset group. This information is used in our models to determine when an asset is expected to be due for renewal, noting that assets will only be renewed when they reach their intervention condition, not based on their age.

Figure 5.1 provides examples of several deterioration profiles used with the vertical column showing the years remaining at a particular condition. For example, in road seal, a Flush Seal at condition 3 will last 20 years until complete failure at condition 5.

Figure 5.1: At what rate do we expect our assets to deteriorate



[2] CM9 Reference -20/44968



Using the information from the curves above and the intervention level set for the class of an asset we can determine the expected useful lives of our assets as detailed in table 5.1 below.

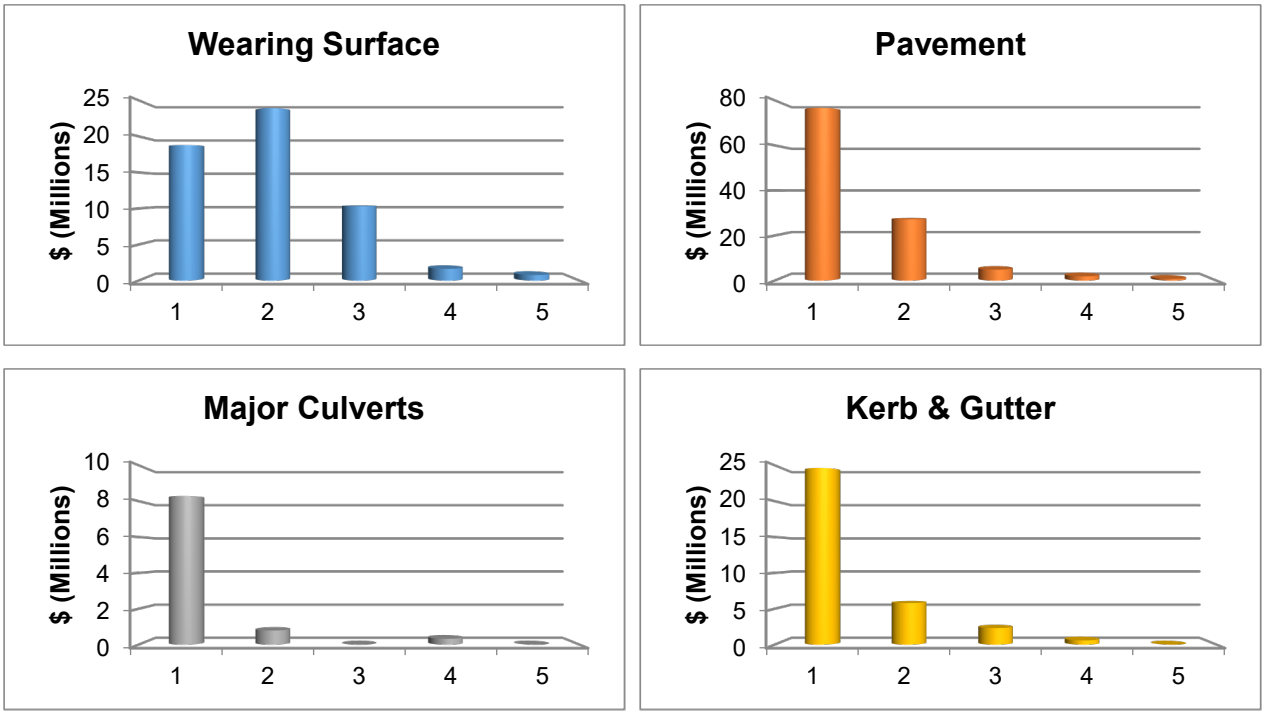
Table 5.1: What are our Intervention Levels to Renew an Asset

Component	Class	Intervention Level	Useful Life
Road Seals (Flush Seal)	Sub- Arterial	3	15
Road Seals (Flush Seal)	Collector/ Local	4	15
Road Seals (AC)	Collector/ Local	4	20
Sealed Road Pavements	Collector and above	3-4	60
Sealed Road Pavements	Local Roads	4	60
Gravel Pavements	Local Roads	4	30
Kerb & Gutter	All Roads	4	80

Each asset's condition is maintained in the Asset Register and the graphs below gives the condition profile based on the renewal dollar value of the top 4 valued assets in each condition.

Asset Management Plan

Figure 5.2: What Conditions are our top assets in ($M)



6. Operations

Operational activities are those regular activities that are required to continuously provide the service including management expenses, street lighting, asset inspection, street furniture, signs, line marking and other overheads.

The road asset class is inspected regularly in accordance with Council's Roads Level of Service in order to operate in acceptable level of service and development and update annual cyclic maintenance programs including:

Urban Road Inspection Frequencies & Responsible Department					
Road Type	Road Hierarchy	Proactive Inspections Defects	Responsible Department	Programmed Inspection Condition- Visual (condition 4 and 5)	Responsible Department
	Urban Sub-Arterial	Monthly	Civil Maintenance	Annually	Asset Planning
	Urban Collector	Monthly	Civil Maintenance	Annually	Asset Planning
	Urban Local 1	6 monthly	Civil Maintenance	Annually	Asset Planning
	Urban Local 2	6 monthly	Civil Maintenance	Annually	Asset Planning
	Urban Laneway	6 monthly	Civil Maintenance	Annually	Asset Planning
	Urban Low Maintenance	Annually	Civil Maintenance	Annually	Asset Planning

Rural Road Inspection Frequencies & Responsible Department					
Road Type	Road Hierarchy	Proactive Inspections- Defects	Responsible Department	Programmed Inspection Condition- Visual (condition 4 and 5)	Responsible Department
	Rural Sub-Arterial	Monthly	Civil Maintenance	Annually	Asset Planning
	Rural Collector	Monthly	Civil Maintenance	Annually	Asset Planning
	Rural Local 1	3 monthly	Civil Maintenance	Annually	Asset Planning

Rural Road Inspection Frequencies & Responsible Department					
	Rural Local 2	3 monthly	Civil Maintenance	Annually	Asset Planning
	Rural Local 3	6 monthly	Civil Maintenance	Annually	Asset Planning
	Rural Low Maintenance	Annually	Civil Maintenance	Annually	Asset Planning

Bridge Inspection Frequencies & Responsible Department					
Bridge Type	Bridge Hierarchy	Proactive Inspections- Defects	Responsible Department	Programmed Inspection Condition- Visual (condition 4 and 5)	Responsible Department
Concrete		12 months	Civil Maintenance	Annually	Asset Planning
Timber		12 months	Civil Maintenance	Annually	Asset Planning
Steel		12 months	Civil Maintenance	Annually	Asset Planning

Major Culverts Inspection Frequencies & Responsible Department					
Major Culverts Type	Major Culverts Hierarchy	Proactive Inspections- Defects	Responsible Department	Programmed Inspection Condition- Visual (condition 4 and 5)	Responsible Department
Reinforced Concrete Pipe	As per Road Hierarchy and criticality of the assets As per Road Hierarchy and criticality of the assets		Civil Maintenance	Annually	Asset Planning

Major Culverts Inspection Frequencies & Responsible Department					
Reinforced Concrete Box Culvert	As per Road Hierarchy and criticality of the assets		Civil Maintenance	Annually	Asset Planning
Arch Design Composite	As per Road Hierarchy and criticality of the assets		Civil Maintenance	Annually	Asset Planning

CAUSEWAY Inspection Frequencies & Responsible Department					
Causeway Type	Major Culverts Hierarchy	Proactive Inspections-Defects	Responsible Department	Programmed Inspection Condition-Visual (condition 4 and 5)	Responsible Department
Elevated Causeway	As per Road Hierarchy		Civil Maintenance	Annually	Asset Planning
Flat Causeway-Concrete slab	As per Road Hierarchy		Civil Maintenance	Annually	Asset Planning
Natural beds	As per Road Hierarchy		Civil Maintenance	Annually	Asset Planning

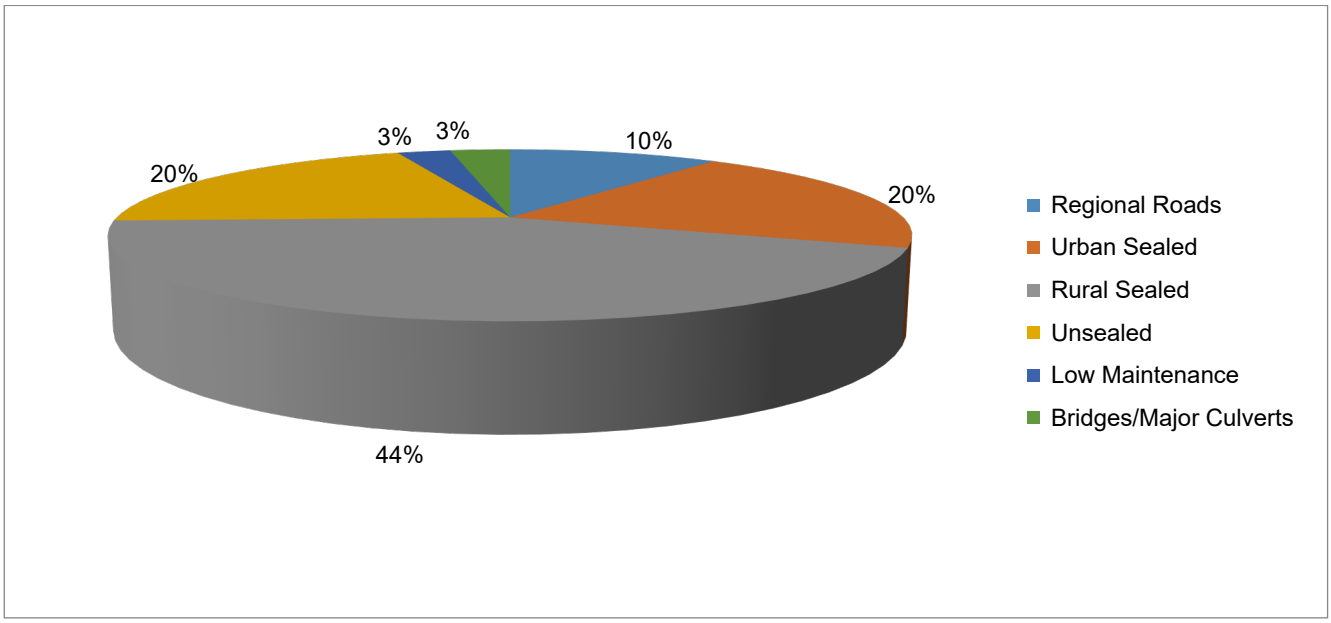
Table 6.2: What are our annual Operational Costs ($,000)

Item	Available Budget	Required Budget	Gap
Regional Roads	115	237	- 122
Urban Sealed	226	342	- 116
Rural Sealed	488	870	- 381
Unsealed	223	48	175
Low Maintenance	29	40	-11
Bridges/Major Culverts	33	130	-97

Asset Management Plan

Item	Available Budget	Required Budget	Gap
Total	**1,115**	**1,666**	**- 551**

Figure 6.1: What is the breakup of our Operational Costs



7. Maintenance

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and need immediate repair to make it operational again. It may be either planned where works are programmed in or cyclic in nature or reactive in response to storm damage, vandalism etc. The majority of the maintenance undertaken by Council is planned or cyclic in nature.

Planned or reactive maintenance are defined as follows:

- Reactive maintenance – unplanned repair work carried out in response to service requests.
- Planned maintenance – repair work that is identified and managed through a maintenance management system and level of service 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.

The level of service and standards of care for maintenance is carried out in accordance with Council's Roads Level of Service.

Future revision of this asset management plan will include linking required maintenance expenditures with required service levels in the Community Strategic Plan.

Table 7.1: What are our Maintenance Activities and the frequency we undertake them?

Activity Name	Hierarchy	Frequency
Batter Protection	Regional	As per request (Reflect Defect)
Earthworks Maintenance	Regional	As per request (Reflect Defect)
Graffiti Removal	Regional	As per request (Reflect Defect)
Guardrail/Safety Barrier Maintenance	Regional	As per request (Reflect Defect)
Guidepost Maintenance	Regional	As per request (Reflect Defect)
Hand Patch	Regional	As per request (Reflect Defect)
Heavy Patching	Regional	As per request (Reflect Defect)
Inspections	Regional	Monthly
K&G Maintenance	Regional	As per request (Reflect Defect)
Maintenance Grading	Regional	0.5 grades per year
Road / Street Sweeping	Regional	1 per month
Roadside Clean-up (Illegal dumping)	Regional	As per request (Reflect Defect)
Shoulder Grading	Regional	0.25 grade in year
Sign Maintenance	Regional	As per request (Reflect Defect)
Tree Maintenance	Regional	As per request (Reflect Defect)
Slashing - Vegetation Control	Regional	3 x per year

Activity Name	Hierarchy	Frequency
Batter Protection	Rural Sealed	`
Earthworks Maintenance	Rural Sealed	As per request (Reflect Defect)
Graffiti Removal	Rural Sealed	As per request (Reflect Defect)
Guardrail/Safety Barrier Maintenance	Rural Sealed	As per request (Reflect Defect)
Guidepost Maintenance	Rural Sealed	As per request (Reflect Defect)
Hand Patch	Rural Sealed	As per request (Reflect Defect)
Heavy Patching	Rural Sealed	As per request (Reflect Defect)
Inspections	Rural Sealed	3 monthly
K&G Maintenance	Rural Sealed	As per request (Reflect Defect)
Maintenance Grading	Rural Sealed	0.5 grades per year
Road / Street Sweeping	Rural Sealed	1 per month
Roadside Cleanup (Illegal dumping)	Rural Sealed	As per request (Reflect Defect)
Shoulder Grading	Rural Sealed	0.25 grade in year
Sign Maintenance	Rural Sealed	As per request (Reflect Defect)
Tree Maintenance	Rural Sealed	As per request (Reflect Defect)
Slashing - Vegetation Control	Rural Sealed	3 x per year

Activity Name	Hierarchy	Frequency
Batter Protection	Urban Sealed	As per request (Reflect Defect)
Earthworks Maintenance	Urban Sealed	As per request (Reflect Defect)
Graffiti Removal	Urban Sealed	As per request (Reflect Defect)
Guardrail/Safety Barrier Maintenance	Urban Sealed	As per request (Reflect Defect)
Guidepost Maintenance	Urban Sealed	As per request (Reflect Defect)
Hand Patch	Urban Sealed	As per request (Reflect Defect)
Heavy Patching	Urban Sealed	As per request (Reflect Defect)
Inspections	Urban Sealed	6 monthly
K&G Maintenance	Urban Sealed	As per request (Reflect Defect)
Maintenance Grading	Urban Sealed	0.5 grades per year
Road / Street Sweeping	Urban Sealed	1 per month (high use areas - weekly)
Roadside Cleanup (Illegal dumping)	Urban Sealed	As per request (Reflect Defect)
Shoulder Grading	Urban Sealed	0.25 grade in year
Sign Maintenance	Urban Sealed	As per request (Reflect Defect)
Tree Maintenance	Urban Sealed	As per request (Reflect Defect)

Slashing - Vegetation Control	Urban Sealed	3 x per year

Activity Name	Hierarchy	Frequency
Batter Protection	Unsealed	As per request (Reflect Defect)
Correct Road Surface Shape	Unsealed	As per request (Reflect Defect)
Earthworks Maintenance	Unsealed	As per request (Reflect Defect)
Graffiti Removal	Unsealed	As per request (Reflect Defect)
Guardrail/Safety Barrier Maintenance	Unsealed	As per request (Reflect Defect)
Guidepost Maintenance	Unsealed	As per request (Reflect Defect)
Hand Patch	Unsealed	As per request (Reflect Defect)
Heavy Patching	Unsealed	As per request (Reflect Defect)
Inspections	Unsealed	Annually
K&G Maintenance	Unsealed	As per request (Reflect Defect)
Maintenance Grading	Unsealed	2 grades per year
Roadside Cleanup (Illegal dumping)	Unsealed	As per request (Reflect Defect)
Shoulder Grading	Unsealed	0.5 grade in year
Sign Maintenance	Unsealed	As per request (Reflect Defect)
Tree Maintenance	Unsealed	As per request (Reflect Defect)
Slashing - Vegetation Control	Unsealed	1 per year

Activity Name	Hierarchy	Frequency
Batter Protection	Low Maintenance	As per request (Reflect Defect)
Correct Road Surface Shape	Low Maintenance	As per request (Reflect Defect)
Earthworks Maintenance	Low Maintenance	As per request (Reflect Defect)
Graffiti Removal	Low Maintenance	As per request (Reflect Defect)
Guardrail/Safety Barrier Maintenance	Low Maintenance	As per request (Reflect Defect)
Guidepost Maintenance	Low Maintenance	As per request (Reflect Defect)
Hand Patch	Low Maintenance	As per request (Reflect Defect)
Heavy Patching	Low Maintenance	As per request (Reflect Defect)
Inspections	Low Maintenance	Annually

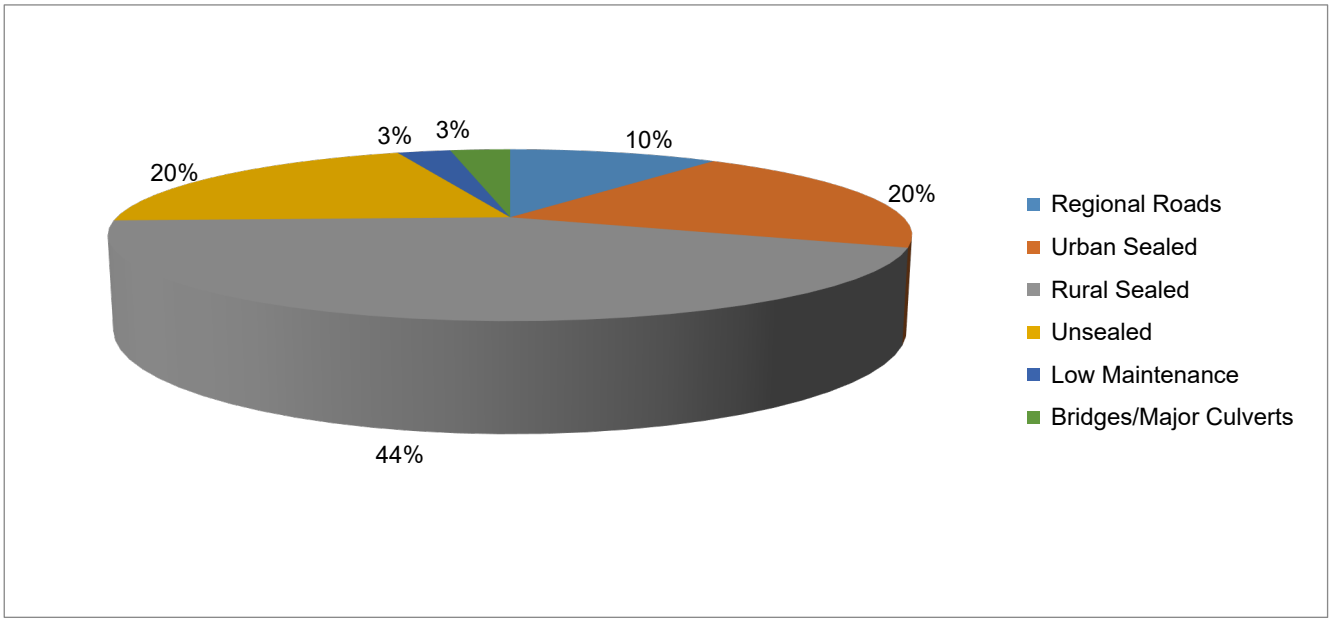
Maintenance Grading	Low Maintenance	1 grade per year
Roadside Cleanup (Illegal dumping)	Low Maintenance	As per request (Reflect Defect)
Shoulder Grading	Low Maintenance	0.25 grade in year
Sign Maintenance	Low Maintenance	As per request (Reflect Defect)
Tree Maintenance	Low Maintenance	As per request (Reflect Defect)
Slashing - Vegetation Control	Low Maintenance	As per request (Reflect Defect)

Activity Name	Classification	Frequency
Inspections	Bridges / Causeways / Culvert	yearly

Table 7.2: What are our annual Maintenance Costs ($,000)

Item	Available Budget	Required Budget	Gap
Regional Roads	268	552	- 284
Urban Sealed	528	901	- 373
Rural Sealed	1,140	2,029	- 889
Unsealed	521	113	408
Low Maintenance	68	94	-25
Bridges/Major Culverts	77	454	- 378
Total	**2,602**	**4,143**	**-1,541**

Figure 7.1: What is the breakup of our Maintenance Costs



Adjusting Levels of Service

The opportunity to adjust the level of service provided is primarily through reducing reaction time to repair defects, increasing the frequency of shoulder grading or other maintenance activities.

8. Capital Renewal / Rehabilitation

This includes work on an existing asset to replace or rehabilitate it to a condition that restores the capability of the asset back to that which it had originally. The intervention level and estimated useful lives are contained in Table 5.1.

This Asset Management Plan contains an analysis based on broad assumptions and best available knowledge to date. Modelling is not an exact science, so we deal with long term averages across the entire asset stock. Work will continue on improving the quality of our asset registers and systems to increase the accuracy of our renewal models. Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than the full replacement cost.

Pavement renewals are addressed in the form of road pavement in-situ rehabilitation. A pavement stabilisation additive is incorporated into the existing pavement via the use of a road reclaimer. The pavement is then re-compacted and sealed. Renewing or "Resealing" existing road surfaces at the optimum time reduces the amount of "reactive" pothole patching required and extends the life of the underlying pavement.

Renewal work is carried out in accordance with the following standards and specifications:

- Singleton Council Construction Specification & Relevant Australian Standards
- RMS Road Maintenance Contract & Road Works Quality Assurance Specifications
- Bridge Design AS 5100

Assets requiring renewal will be generally identified from estimates of remaining life and condition assessments obtained from the asset register and models. Candidate proposals will be inspected to verify the accuracy of the remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

Details of planned renewal over the next 4 years are listed in Appendix B. The first year of the program will be considered in the development of the next Operational Plan and the remaining 3 years of work will be assessed each year to confirm that the asset has reached its intervention level prior to the work being scheduled.

For this asset group, an analysis has been undertaken to determine assets that are already at or above intervention level that are not able to be funded in the next Operational Plan. This work is quantified in the 'Backlog' columns. Note a negative figure in a backlog column is indicative of the work required that year only, practically, those funds would be diverted to another program that has a deficit that year. Budget required and average gap figures are based on a 10 year annual average amount.

Table 8.1: What are our Renewal Costs, Gap and Backlog (2021 $,000)

Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Wearing Surface	1,676	1,676			
Pavement	2,004	2,205	201	2,720	2,010
Gravel Resheeting	782	782			
Kerb & Gutter	64	64			
Bridges	523	1,263	740		7,400
Major Culverts	86	86			
Safety Barriers	7	7			
Causeways	752	826	74		740
Total	**5,895**	**6,910**	**1,015**	**2,720**	**10,150**

The following graphs show the proposed expenditure on renewals over the next 10 years and the rolling backlog in any one year over that period. Two graphs are presented due to the high impact of the rolling backlog. Figure 8.1 indicates that, based on current projections, Council will spend approximately $5.9 million per annum on road network renewals.

Figure 8.1: What will we spend (2021 $,000) over the next 10 years on Renewal

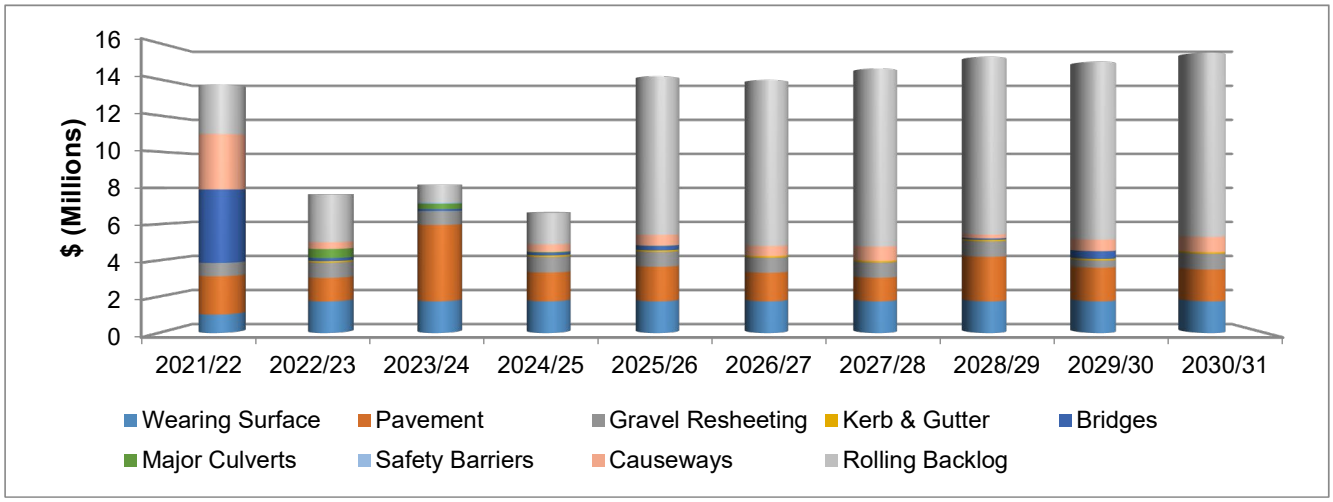
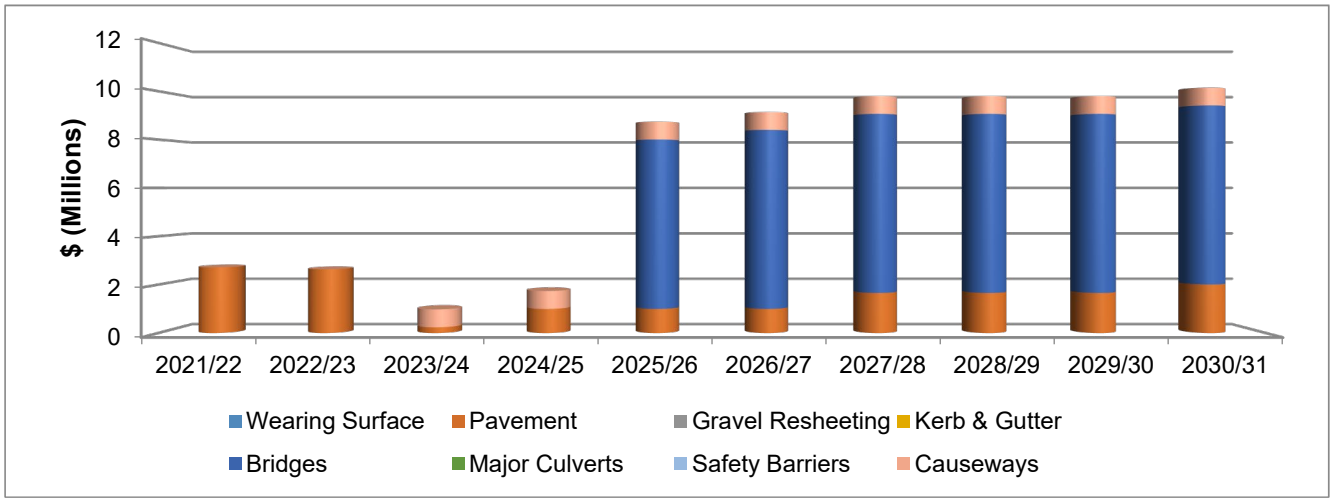


Figure 8.2 indicates that in any year the value of work exceeding the intervention levels set in this Asset Plan could be $10.150 million at the end of 10 years. However, from Table 8.1, when considering the renewals required over the next 10 years, an additional $1.015 million per year would be required to ensure no backlog of works in 2030/2031.

Figure 8.2: What are the projected rolling backlog splits ($,000)



Lifecycle costs

The lifecycle costs are determined based on the total cost of ownership of each asset including operations, maintenance, renewal and disposal costs. The average annualised lifecycle costs for each component is presented in table 8.2.

Table 8.2: What are our Lifecycle Costs ($000)

Asset	Quantity	Units	O&M	Renewal	Disposal	Average Annual	$/Unit p.a
Wearing Surface	757.9	km	829.6	1,383.4	138.3	2,351.3	3,102.31
Pavement	765.6	km	1,935.7	1,390.2	139.0	3,465.0	4,525.76
Gravel Resheeting	127.5	km	841.9	256.4	25.6	1,123.9	8,817.89
Kerb & Gutter	194.7	km	(0.0)	336.8	33.7	370.5	1,902.87
Bridges	60.0	ea	32.9	327.7	32.8	393.4	6,556.25
Major Culverts	50.0	ea	76.7	88.3	8.8	173.9	3,477.07
Safety Barriers	30.5	km	(0.0)	65.1	6.5	71.6	2,348.50
Causeways	62.0	ea	(0.0)	41.1	4.1	45.3	729.94
Total			**3,716.7**	**3,889.1**	**388.9**	**7,994.6**	

9. Capital Upgrades & New Assets

Upgrades enhance an existing asset to provide a higher level of service, for example widening an existing road seal. New assets are those created to meet an additional service level requirement or increase the size of a network, for example, new subdivisions, or extension of the stormwater drainage network.

The requirements for new assets may result from growth, social or environmental needs. The impact from growth is included in the demand analysis within the Asset Management Strategy.

Both capital types may be funded at least in part through Developer Contributions in the form of a Section 64 or 7.11 Contribution, a Voluntary Planning Agreement, or as part of a subdivision development. Section 7.11 of the Environmental Planning and Assessment Act 1979 allows Council to require developers to contribute towards meeting the increased demand for public amenities and services created by new development. Council's S7.11 Development Contribution Plan provides a means for collecting relevant contributions in respect to road upgrading, traffic management and car parking.

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

Council has developed a framework for the prioritisation of capital projects and that information is used in the consideration of all new projects above the threshold set in the framework. Included in the analysis is the identification of life cycle costs as outlined in the Asset Management Strategy.

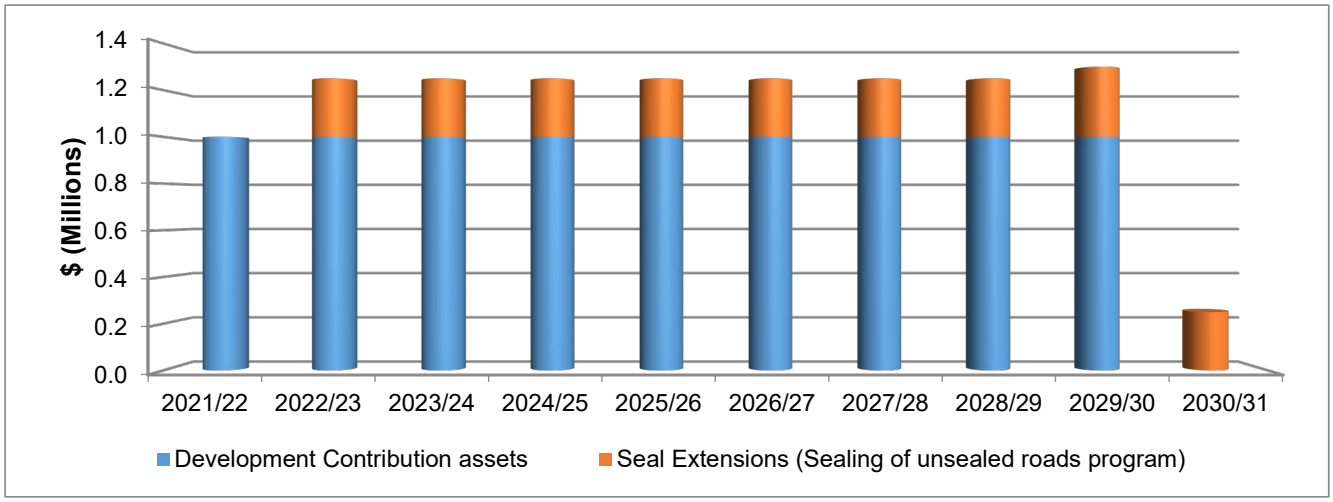
Council has an adopted strategy for the expansion of Roads with the following new / upgraded assets proposed over the next 10 years to meet demand and safety improvement requirements. Table 9.1 indicates the major projects (a complete list is contained in Appendix C).

Table 9.1: What are the top 3 upgraded / new assets are proposed over the next 10 years

Project / Group	Year(s)	Status	Cost
Dunolly Bridge- Painting (RR777B1)	2024	Renewal	$7M
Hungerfords Bridge, Broke - Cessnock Road - Replacement of Bridge (RR7767B1)	2028	Renewal	$3.2M
Oakey Bridge, Old Carrowbrook Rd (61B1)	2029	Renewal	$2.5M

Asset Management Plan

Figure 9.1: What will we spend ($M) over the next 10 years on Upgraded or New Assets



10. Disposal Plan

No redundant assets requiring decommissioning and disposal are anticipated.

11. Financial Plan

As part of its funding strategy, Council has the option to supplement any or all of the current or new Roads proposals that come into consideration for construction with borrowings. This strategy is heavily influenced by the monitoring of Council's Debt Service Ratio.

The debt service ratio is a measure of the degree to which revenues are committed to servicing debt. The purpose of the ratio is to assess the impact of loan principal and interest repayments on the discretionary revenue of the Council. Council's long term target is to maintain a ratio of less than 7.49%.

A summary of the funding requirements and expenditure over the next 10 years is included in Appendix D, with the projected budget amounts being based on 2021 dollars and increased for growth according to Long Term Financial Plan assumptions.

Funding for management of assets can come from a variety of sources as detailed in the table below.

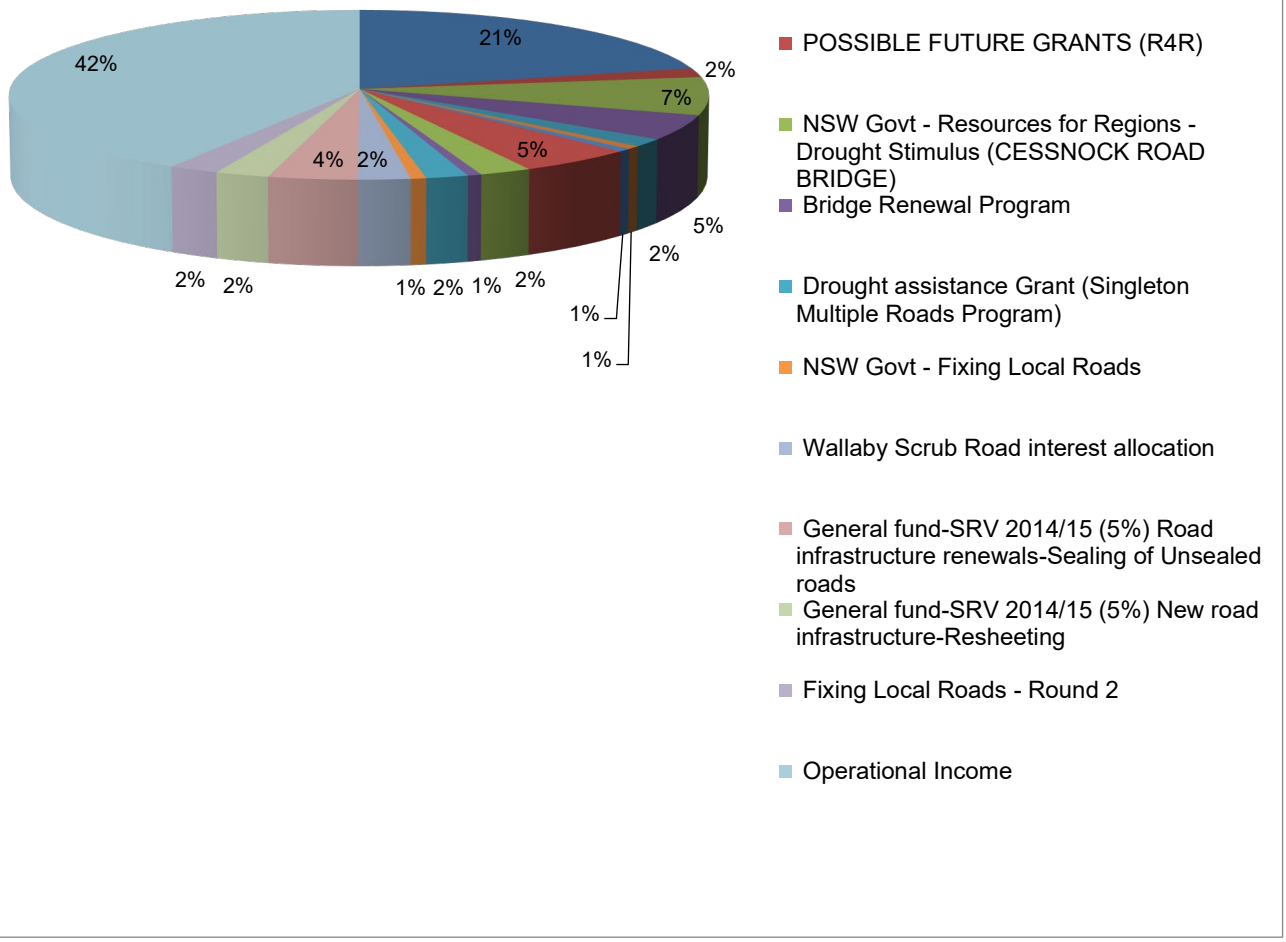
Table 11.1: Where does our Income come from ($,000)

Item	Budget
General fund including 9.75% SRV	2,258
Federal Assistance Grant (FAG)	189
Federal Road to Recovery (based on current Agreement of $4.08M to 30/6/2024)	775
RMS Block Grant ('Roads' and 'Supp' parts on lyno 'Traffic' part goes to M&R)	514
RMS Repair program funding	164
Federal - Bridge and Heavy Vehicle programs - Gibbs Bridge (Putty Valley Rd)	65
CONFIRMED Resources for Regions (R4R)	60
POSSIBLE FUTURE GRANTS (R4R)	548
NSW Govt - Resources for Regions - Drought Stimulus (CESSNOCK ROAD BRIDGE)	243
Bridge Renewal Program	65
Drought assistance Grant (Singleton Multiple Roads Program)	196
NSW Govt - Fixing Local Roads	71
Wallaby Scrub Road interest allocation	242
General fund-SRV 2014/15 (5%) Road infrastructure renewals-Sealing of Unsealed roads	417

Asset Management Plan

Item	Budget
General fund-SRV 2014/15 (5%) New road infrastructure-Resheeting	250
Fixing Local Roads - Round 2	234
Operational Income	4,475
Total	**10,765**

Figure 11.1: What is the breakup of our income streams



12. Plan Improvements

In addition to the Asset Management Strategy improvements, the following items outline proposed improvements to the way in which road assets are managed. It is expected that this will be an ongoing process, as part of good asset management practice is to continually review and improve the methodology used.

Also, there is a general improvement plan in place for asset management framework PM20_80014 - Asset Management Framework Improvement plan

Plan Improvement	Timeframe
Investigating pavement management system to capture history of resealing and rehabilitation works	December 2021
Develop catalogue for treatment/rehabilitation unit rate	June 2022
Updating condition assessment manual	February 2022
Finalising strategic modelling of Roads asset class	June 2022
Develop register and management plan for slops	June 2022
Updating and adding condition of assets against financial attribute (CVR)	June 2022
Check financial coding of CVR and relocate the assets to the appropriate category	June 2022
Developing Planned maintenance program	June 2023
Ongoing maintenance of asset register	On going

It must be noted that these items are part of a continual process and need to be reviewed on a yearly basis as to progress and validity.

13. Risk Management Plan

Council is committed to the identification and elimination, or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan is being re-developed which includes the management of risks for each of its assets. From this Plan the following key Risks have been identified: Full risk register of Infrastructure Services can be viewed at CM9 record 18/8934.

The key Risks identified in this Plan are summarised in the following Table 14.1.

Table 13.1 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
failure of critical asset in the roads asset class	injury/fatality damage to reputation loss of amenity for community litigation loss of service	9	Defining level of service On going monitoring of condition of assets

One of the outcomes of this assessment is the determination of **Critical Assets.** Critical assets are specific assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenance activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Criticality can be assessed by applying broad assumptions about the implications of failure, for example, whether the non-availability of an asset would have a significant impact on the local or possibly the national economy. Using this approach, simple criteria can be defined to assess the loss of service. For example, the loss of use of a Roads asset may:

- affect or disconnect specific parts of a community,
- affect businesses of different sizes and significance, and
- affect specific numbers of road users/hour.

Table 13.2 Criticality Ranking

Asset Class	Asset Category	Criticality Ranking	Criticality Definition
Roads			
	Roads, Bridge, Major Culvert, Causeway		
		Very High (4)	Loss of asset would cause **significant disruption**. Could cause severe damage to property like shops and businesses in heavy rain events or excessive flooding in residential areas.
		High (3)	Loss of asset would cause **some disruption**. These assets result in flooding of the road network.
		Medium (2)	Loss of asset would cause **minor impact**. Has limited concerns for the network, often in road reserves.
		Low (1)	Loss of asset would have **virtually no impact**.

The identification of critical road assets is identified in Table 13.3 where there is a potential for failure to risk public safety or property have also been identified as critical.

Table 13.3 Critical Assets

Asset Number	Critical Assets – Roads	Critical Failure Mode	Location	Criticality Ranking	Comments
	Road				
26925	Bridgman Road (RD0011)	Level of Service	Urban Sub-Arterial Road	4	Due to flooding at an early stage 10m. Access to water treatment plant is limited.

Asset Number	Critical Assets – Roads	Critical Failure Mode	Location	Criticality Ranking	Comments
26950	Bridgman Road (RD0011)	Level of Service	Rural Sub-Arterial Road	4	
82226	Bridgman Road (RD0011)	Level of Service	Rural Sub-Arterial Road	4	
	Bridge				
29478	54B7	Level of Service	54B7 - Brookers Bridge on Mirannie Road	4	
	61B1	Level of Service	61B1 - Oakey Bridge on Old Carrowbrook Road	4	This accesses the Glennies Creek Dam Wall
	61B2	Level of Service	61B2 - Franks Bridge on Old Carrowbrook Road	4	
	Major Culverts				
33791	Acacia Crt	Level of Service	0.115km from Bridgman Road	4	Conc – 3000x1800 Cells = 5
33793	Blue Bonnet Rd	Level of Service	0.83km from Lambs Valley Road	4	Conc – 1500x1500 Cells = 5
33796	Bridgman Rd	Level of Service	1.70km from New England Highway (H9)	4	Conc – 1800x2000 Cells = 5
33805	Dalwood Rd	Level of Service	5.03km from Wyndham Street	4	Conc – 2500x2400 Cells = 3
33808	Elderslie Rd	Level of Service	9.24km from Cessnock Shire Boundary	4	Conc – 2150x1500 Cells = 3
33810	Falbrook Rd	Level of Service	0.93km from Glennies Creek Road	4	Conc – 1800x2000 Cells = 3

Asset Number	Critical Assets – Roads	Critical Failure Mode	Location	Criticality Ranking	Comments
33811	Falbrook Rd	Level of Service	6.06km from Glennies Creek Road	4	Conc – 1800x300 Cells = 1
33813	Gardner Crt	Level of Service	2.385km from Bridgman Road (southern intersection)	4	Conc – 3300x1300 Cells = 3
33814	Glendonbrook Rd	Level of Service	3.52km from Dungog Shire Boundary	4	Conc – 3300x2450 Cells = 2
33816	Goorangoola Creek Rd	Level of Service	4.945km from Goorangoola Road	4	Conc – 7800x2900 Cells = 2
33822	The Inlet Rd	Level of Service	0.475km from Putty Road (MR503)	4	Conc – 2700x1500 Cells = 2
33828	Lemington Rd	Level of Service	13.52km from New England Hwy (H9)	4	Conc – 1800x900 Cells = 3
33833	Mirannie Rd	Level of Service	0.325km from Gresford Road (RR128)	4	Conc – 3100x2400 Cells = 5
33834	Glendonbrook Rd	Level of Service	1.13km from Dungog Shire Boundary	4	Conc – 1650x1800 Cells = 6
33797	Carrowbrook Rd	Level of Service	0.695km from Bridgman Road	4	Conc – 3200x2450 Cells = 2
33800	Charlton Rd	Level of Service	3.92km from Putty Road (MR503)	4	Conc – 1800x1800 Cells = 6
33840	Wollombi Rd	Level of Service	3.565km from Broke Road (RR181)	4	Conc – 2600x2300 Cells = 3
33470	Wollombi Rd	Level of Service	12.780km from Broke Road (RR181)	4	Steel – 3000x4800 Cells = 3
33804	Cranky Corner Rd - North	Level of Service	2.140km from Glendonbrook Road	4	Steel – 4300x2300 Cells = 3

Asset Number	Critical Assets – Roads	Critical Failure Mode	Location	Criticality Ranking	Comments
33821	Hermitage Rd	Level of Service	9.885km from New England Highway (H9)	4	Conc – 2750x1300 Cells = 3
33827	Lambs Valley Rd	Level of Service	8.20km from Stanhope Road	4	Conc – 3000x1800 Cells = 3
33795	Bridgman Rd	Level of Service	10.18km from New England Highway (H9)	4	Conc – 1700x1800 Cells = 4
33798	Carrowbrook Rd	Level of Service	1.16km from Bridgman Road	4	Conc – 2700x2700 Cells = 3
33815	Glendonbrook Rd	Level of Service	4.36km from Dungog Shire Boundary	4	Conc – 2700x2700 Cells = 4
33818	Gresford Rd	Level of Service	0.76km from Glendonbrook/Elderslie Road Intersection	4	Conc – 3100x1500 Cells = 2
33835	Racecourse Lane	Level of Service	0.14km from New England Highway (H9)	4	Conc – 1200x900 Cells = 7
33809	Elderslie Rd	Level of Service	14.44km from Cessnock Shire Boundary	4	Conc – 2400x2150 Cells = 2
33812	Fordwich Rd	Level of Service	0.87km from Charlton Road	4	Steel – 4200x2000 Cells = 4
33826	Kirkton Rd	Level of Service	1.3km from Standen Drive	4	Conc – 1500x1600 Cells = 2
33829	Long Point Rd - West	Level of Service	1.03km from Golden Highway (HW27)	4	Conc – 2700x2000 Cells = 3
33832	Milbrodale Rd	Level of Service	4.746km from Broke Road	4	Conc – 2170x2100 Cells = 3

Roads also have risks associated with initial construction and maintenance activities. These risks are managed under specific risk management plans (such as traffic control plans and

Safe Work Method Statements) and in accordance with applicable Work Health and Safety requirements.

Risks associated with the degradation of assets are managed by the periodic inspection (proactive) or through customer service requests under the requirements and response times outlined in Council's Roads Level of service document.[3]

The Asset Classification Standard (ACS) defines the road in terms of its position within the network hierarchy and describes its functional characteristics relative to other ACS levels. Each road is managed, inspected, maintained and repaired in accordance with the Maintenance Service Level (Specification) Standard applicable to the particular ACS.

The Maintenance/Operational level of service is described by maintenance activities including responses for different defects (kerb and gutter, footpath, potholes, heavy patching, re-sheeting etc which must be carried out to achieve a standard (both qualitative and quantitative) outcome.

Examples of maintenance activities which may be described by MSL include:

- maintenance grading of a gravel road - frequency of grading
- edge patching of sealed road - dimensional limit of edge break
- slashing of road verge - maximum height of grass
- line marking re-painting - frequency of repainting or measure of paint visibility

[3] CM9 Reference: 18/47441

Asset Management Plan

Operational risks and treatment plans are outlined in the following Table 13.4.

Table 13.4 Operational Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Treatment Plan
Road pavement / wearing surface	Early loss of service level due to excessive roughness, potholes, etc	Condition assessment
	Loss of wet weather skid resistance due to bleeding of surface of sprayed bitumen seal or asphalt surfaces.	Condition assessment
	Unacceptable performance due to poor standard of reinstatement by service utilities / developers.	Condition assessment
Road delineation / signage / sight distances	High accident rates	Traffic management plan, safety audit
Bridges /rural culverts / sections of the road network	Impassable due to collapse, wildfire, flooding or windstorm resulting in loss of conductivity / greater travel times	Level 2 bridge inspection, condition assessment
Unsealed roads	Inaccessible after rain, increase in traffic accidents	Condition assessment

Asset Management Plan

Appendix A: Maintenance Program

To be developed.

Date Inspected	Inspection Number	Location	Segment	Length m	Width m	Depth m	Total m2

Appendix B: Renewals

The following programs are based on best available information with the first year of works expected to be delivered within the currently identified budgets. After the first year, the following years will be validated each year with a review of the condition so that assets are only renewed at the intervention level. Works that can't be funded within the 4 years but which are expected to be due based on modelling, are grouped as 'unfunded'.

14.1 Reseals ($)

Where pavement rehabilitation is due within 5 years of a reseal, work will be undertaken in conjunction with the rehabilitation.

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Annual reseals - Regional Roads	Condition	350,000	345,000	350,000	350,000	1,395,000
Annual reseals - Rural Local Roads	Condition	485,000	1,100,000	1,100,000	1,100,000	3,785,000
Annual reseals - Urban Local Roads	Condition	182,500	300,000	300,000	300,000	1,082,500
Total Funded		**1,017,500**	**1,745,000**	**1,750,000**	**1,750,000**	**6,262,500**

14.2 Pavement Rehabilitation ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Design program	Condition	350,000	350,000	350,000	350,000	1,400,000
Roads design program - (Wallaby Scrub commitment)	Commitment (WSR strategy)	50,000	50,000	50,000	50,000	200,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Rehab Rural Roads - Doyles Creek Road - 1.54 to 2.66 - Bulga (Wallaby Scrub commitment)	Commitment (WSR strategy)	175,000				175,000
Rehab Urban Roads - Cochrane St - 0.00 to 0.66 - Broke (Wallaby Scrub commitment)	Commitment (WSR strategy)		150,000			150,000
Rehab Urban Roads - Howe St - 0.69 to 0.89 - Broke (Wallaby Scrub commitment)	Commitment (WSR strategy)		40,000			40,000
Rehab Rural Roads - Charlton Rd - 8.52 to 9.72km - Broke (Wallaby Scrub commitment)	Commitment (WSR strategy)				300,000	300,000
Rehab Rural Roads - Cobcroft Rd - 0.00 to 1.81km - Broke (Wallaby Scrub commitment)	Commitment (WSR strategy)	175,000				175,000
Rehab Regional Roads - MR181-Broke Rd - 15.25 to 15.45 (1.1 to 1.3km from Putty Rd)	Commitment (RMS Repair grant)	175,000				175,000
Rehab Regional Roads - MR181-Broke Rd - 15.83 to 16.03 (0.52 to 0.72km from Putty Rd)	Commitment (RMS Repair grant)	177,000				177,000
Rehab Regional Roads - MR453-Elderslie Rd - 0.0 to 0.74km (from Cessnock LGA boundary)	Commitment (RMS Repair grant)		549,000			549,000
Rehab Regional Roads - RR7767-Cessnock Rd - 2.5 to 3.15km - rehab	Commitment (RMS Repair grant)			350,000		350,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Rehab Regional Roads - RR7767-Cessnock Rd - 6.15 to 6.65km - rehab	Commitment (RMS Repair grant)				286,000	286,000
Rehab Rural Roads - Lilavale Track - 0.00 to 0.29km - realignment	Condition		75,000			75,000
Rehab Rural Roads - Idano Rd - 1.35 to 2.03km (0.25km ending at dairy entrance)	Condition	80,000				80,000
Rehab Rural Roads - Glendon Rd - (Whitefalls Lane end)	Condition	550,000				550,000
Rehab Rural Roads - Bridge St & Swain St intersection at Belford - formalise intersection	Level of Service	70,000				70,000
Rehab rural roads - Falbrook Road Ch5.77 to Ch7.16	Condition			390,000		390,000
Rehab Rural Roads - Cranky Corner South Rd - 2.10 to 2.41km (end at AC south of Glenalister Bridge) [7m wide]	Condition			130,000		130,000
Rehab Rural Roads - Cranky Corner South Rd - 3.02km to 3.45kmGlenalister Rd to Fullers Bridge) [6m]	Condition			140,000		140,000
Rehab Rural Roads - Putty Valley Rd - 6km from Putty Rd - Landslip	Condition	2,600,000				2,600,000
Rehab Rural Roads - Goorangoola Rd - 8.09 to 8.31km (south of Double Crossing)	Condition				100,000	100,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Rehab Rural Roads - Goorangoola Rd - 8.48 to 9.61 (start 0.1km north of Double Crossing)	Condition				350,000	350,000
Rehab Rural roads - Glendon Rd - 7.92 to 8.72km	Condition			400,000		400,000
Rehab Rural Roads - Goorangoola Rd - 13.59 to 14.45km - (14.45km is end of Goorangoola Rd)	Condition	310,000				310,000
Rehab Urban Roads - Solman Ln - 0.00 to 0.09km rehab with AC (4.5m wide) + replace 90m K&G on east side	Condition	120,000				120,000
Rehab Urban Roads - sites to be finalise	Condition				150,000	150,000
Total Funded		**4,832,000**	**1,214,000**	**1,810,000**	**1,586,000**	**9,442,0000**
Unfunded Projects						
Rehab Urban Roads - Woodland Road at Mt Thorley	Condition				450,000	450,000
Rehab Urban Roads - Acacia Cct	Condition				310,000	310,000
Total Unfunded					**760,000**	**760,000**

14.3 Gravel Resheeting ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Low Maintained Roads - (unsealed) (Wallaby Scrub commitment)- Note: this is SEPARATE from the other annual Low Maintained Roads allocation	Commitment (WSR strategy)	100,000	185,000	85,000	150,000	520,000
Resheeting - Rural Local roads (unsealed)	Condition	332,687	357,687	383,398	409,900	1,483,672
Low Maintained roads (unsealed) (in addition to Wallaby Scrub LM roads)	Condition	300,000	300,000	300,000	300,000	1,200,000
Total Funded		**732,687**	**842,687**	**768,398**	**859,900**	**3,203,672**

14.4 Safety Barriers ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Causeways & Culverts - Milbrodale Rd - 4.75km from Broke Rd 14C1 - Guardrail terminals (Wallaby Scrub commitment)	Commitment (WSR strategy)			20,000		20,000
Causeways & Culverts - Wollombi Rd - 3.56km from Broke Rd 127C1 - Guardrail replace (Wallaby Scrub commitment)	Commitment (WSR strategy)			45,000		45,000
Total Funded				**65,000**		**65,000**

14.5 Kerb & Gutter ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Kerb and Gutter Renewal - (Refer to priority site list in 12/13622)	Condition		80,000		80,000	160,000
Total Funded			**80,000**		**80,000**	**160,000**

14.6 Bridges ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Gibbs Bridge, Putty Valley Road - 69B2 - Replacement of timber bridge	Condition	1,300,000				1,300,000
Liddell Bridge, Old New England Highway - 113B1 - Wingwall Maintenance +guardrail and postreplacing	Condition		65,000			65,000
Un-named on Lilavale Track, Lilavale Track - 189B1 - replacement bridge	Condition		80,000			80,000
Dunolly Bridge, Newton St - RR7774B1 - structural assessment	Condition	25,000				25,000
Dunolly Bridge, Newton St - RR7774B1 - recoating - Investigation & Specification phase	Condition			25,000		25,000
Maryvale Bridge, Stanhope Road - 83B2 - guard rail and posts	Level of Service		25,000			25,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Roberts Bridge No.1, Mirannie Rd - 54B4 - Barrier Replacement & Batter Replacement	Condition				145,000	145,000
Kermodes Bridge, Goorangoola Rd - 34B2 - Wingwall Repair and guardrail	Condition	225,000				225,000
Pullmyhei Bridge, Jones Reserve Rd - 42B2 - Batter Protection	Condition			80,000		80,000
Glennies Bridge, Goorangoola Rd - 34B1 - Batter protection	Condition	80,000				80,000
Hungerfords Bridge, Cessnock Road - replacement	Condition	2,425,000				2,425,000
Total Funded		**4,055,000**	**170,000**	**105,000**	**145,000**	**4,475,000**

14.7 Major Culverts ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Causeways & Culverts - Charlton Rd - 8.49km from Putty Rd 12C3 (Wallaby Scrub commitment)	Commitment (WSR strategy)			300,000		300,000
Causeways and Major Culverts - Charlton Rd - 3.92km from Putty Rd - 12C1 - Culvert. This is in design in 20/21 under PM20_10250	Condition		500,000			500,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Causeways and Major Culverts - Mirannie Road - 0.325km from Gresford Rd - 54C1 - Spalling repairs and guardrail replacement	Condition				45,000	45,000
Total Funded			**500,000**	**300,000**	**45,000**	**845,000**

14.8 Causeways ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
Causeways and Major Culverts - Goorangoola Road - 2.74km from Bridgman Road - 34CA2 - c/way	Commitment (Drought grant)	1,500,000				1,500,000
Causeways and Major Culverts - Hamiltons Crossing Rd over Glendonbrook (0.67m noth of G'Brook Rd) - NEW c/way- Fixing Local Roads drought stimulus.	Commitment (Drought grant)	1,563,842				1,563,842
Causeways and Major Culverts - Goorangoola Road - 12.63km from Bridgman Road - 34CA7 - c/way	Condition		375,000			375,000
Causeways and Major Culverts - Mirannie Road - 15.42km from Gresford Road (RR128) - 54CA3 - c/way	Condition				150,000	150,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Causeways and Major Culverts - Bowmans Creek Road - 5.97km from Goorangoola Creek Road - 10CA3 - c/way	Condition				180,000	180,000
Causeways and Major Culverts - Myall Creek Road - 11.12km from Glendonbrook Road (RR128) - 57CA10 - c/way	Condition				90,000	90,000
Total Funded		**3,063,842**	**375,000**		**420,000**	**3,858,842**
Unfunded Projects						
Causeways and Major Culverts - Goorangoola Road - 12.25km from Bridgman Road - 34CA6 - c/way	Council resolution			340,000		340,000
Causeways and Major Culverts - Carrowbrook Road - 28.18km from Bridgman Road - 19CA3 - c/way	Condition			400,000		400,000
Total Unfunded				**740,000**		**740,000**

Appendix C: 4-year Program for Upgrade / New Capital Works ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Funded Projects												
Sealing Unsealed Roads - sites to be advised per the Priority Assessment Tool	Level of Service		250,000	250,000	250,000	250,000	250,000	250,000	250,000	300,000	250,000	2,300,000
Waste management facility - Auxiliary left-turn lane on Dyrring Road - DESIGN	Level of Service	30,000										30,000
Waste management facility - Auxiliary left-turn lane on Dyrring Road - CONSTRUCT	Level of Service	300,000										300,000
Sealing Unsealed Roads - Welshs Road -	Level of Service	517,259										517,259

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
600m along Milbrodale School												
Total Funded		**847,259**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**300,000**	**250,000**	**3,147,259**
Unfunded Projects												
Brunners Bridge, Gresford Road - Replacement of concrete Bridge (RR128B4)	Condition										6,000,000	6,000,000
Total Unfunded											**6,000,000**	**6,000,000**

Appendix D: 10 Year Financial Plan (2021 $,000)

Item	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Average
Income											
General fund including 9.75% SRV	(1,318)	(1,590)	(2,052)	(1,843)	(1,455)	(2,142)	(2,668)	(3,312)	(2,962)	(3,236)	(2,258)
Federal Assistance Grant (FAG)	(25)	0	(300)	0	(602)	(575)	0	0	(360)	(24)	(189)
Federal Road to Recovery (based on current Agreement of $4.08M to 30/6/2024)	(1,165)	(802)	0	(824)	(825)	(825)	(824)	(825)	(832)	(832)	(775)
RMS Block Grant ('Roads' and 'Supp' parts only no 'Traffic' part goes to M&R)	(525)	(620)	(525)	(493)	(600)	(472)	(475)	(475)	(475)	(475)	(514)
RMS Repair program funding	(176)	(274)	(175)	(143)	(250)	(122)	(125)	(125)	(125)	(125)	(164)
Federal - Bridge and Heavy Vehicle programs - Gibbs Bridge (Putty Valley Rd)	(650)	0	0	0	0	0	0	0	0	0	(65)
CONFIRMED Resources for Regions (R4R)	(600)	0	0	0	0	0	0	0	0	0	(60)
POSSIBLE FUTURE GRANTS (R4R)	(974)	(1,120)	(1,140)	(1,060)	(1,190)	0	0	0	0	0	(548)
NSW Govt - Resources for Regions - Drought Stimulus (CESSNOCK ROAD BRIDGE)	(2,425)	0	0	0	0	0	0	0	0	0	(243)
Bridge Renewal Program	(650)	0	0	0	0	0	0	0	0	0	(65)
Drought assistance Grant (Singleton Multiple Roads Program)	(1,963)	0	0	0	0	0	0	0	0	0	(196)
NSW Govt - Fixing Local Roads	(714)	0	0	0	0	0	0	0	0	0	(71)
Wallaby Scrub Road interest allocation	(243)	(243)	(228)	(243)	(243)	(243)	(243)	(243)	(243)	(243)	(242)
General fund-SRV 2014/15 (5%) Road infrastructure renewals-Sealing of Unsealed roads	(333)	(358)	(383)	(410)	(420)	(431)	(441)	(452)	(463)	(475)	(417)
General fund-SRV 2014/15 (5%) New road infrastructure-Resheeting	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)
Fixing Local Roads - Round 2	(2,340)	0	0	0	0	0	0	0	0	0	(234)
Operational Income	(3,745)	(4,382)	(4,526)	(4,472)	(4,499)	(4,743)	(4,818)	(4,894)	(4,722)	(3,952)	(4,475)
Total Income	**(18,095)**	**(9,639)**	**(9,580)**	**(9,738)**	**(10,334)**	**(9,802)**	**(9,844)**	**(10,576)**	**(10,432)**	**(9,612)**	(10,765)
Operations											
Regional Roads	105	107	109	111	114	116	118	121	123	125	115
Urban Sealed	207	211	215	219	224	228	233	237	242	247	226
Rural Sealed	446	455	464	473	483	493	502	512	523	533	488
Unsealed	204	208	212	216	221	225	230	234	239	244	223
Low Maintenance	27	27	28	28	29	29	30	31	31	32	29
Bridges/Major Culverts	30	31	31	32	32	33	34	34	35	36	33
Total Operations	**1,018**	**1,039**	**1,059**	**1,081**	**1,102**	**1,124**	**1,147**	**1,170**	**1,193**	**1,217**	1,115
Maintenance											
Regional Roads	245	250	255	260	265	270	276	281	287	293	268
Urban Sealed	482	492	501	511	522	532	543	554	565	576	528
Rural Sealed	1,041	1,062	1,083	1,105	1,127	1,149	1,172	1,196	1,220	1,244	1,140
Unsealed	476	486	495	505	515	526	536	547	558	569	521
Low Maintenance	62	63	65	66	67	69	70	71	73	74	68
Bridges/Major Culverts	70	71	73	74	76	77	79	80	82	84	77
Total Maintenance	**2,376**	**2,424**	**2,472**	**2,521**	**2,572**	**2,623**	**2,676**	**2,729**	**2,784**	**2,840**	2,602
Renewals											
Bridges	4,055	170	105	145	245	0	0	80	430	0	523
Causeways	3,064	375	0	420	595	570	800	210	640	850	752

Gravel Resheeting	733	843	768	860	820	831	841	852	400	875	782
Kerb & Gutter	0	80	0	80	80	80	80	80	80	80	64
Major Culverts	0	500	300	45	15	0	0	0	0	0	86
Pavement	4,832	1,214	1,810	1,586	1,905	1,574	1,300	2,455	1,855	1,750	2,028
Safety Barriers	0	0	65	0	0	0	0	0	0	0	7
Wearing Surface	1,018	1,745	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,676
Total Renewal	**13,701**	**4,927**	**4,798**	**4,886**	**5,410**	**4,805**	**4,771**	**5,427**	**5,155**	**5,305**	5,919
Upgrade / Expansion											
Development Contribution assets	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	900
Seal Extensions (Sealing of unsealed roads program)	0	250	250	250	250	250	250	250	300	250	230
Total Upgrade / Expansion	**1,000**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,250**	**1,300**	**250**	1,130
Total Expenditure	**18,095**	**9,639**	**9,580**	**9,738**	**10,334**	**9,802**	**9,844**	**10,576**	**10,432**	**9,612**	**10,765**

ASSET MANAGEMENT PLAN

TRANSPORT

SINGLETON COUNCIL

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Document Control					
Rev No	**Date**	**Revision Details**	**Author**	**Verifier**	**Approver**
1	10/09/2021	Draft	NK	ML	DM

1. Executive Summary

Council's intention is to provide the Singleton local government area with a Transportation network that is serviced and maintained to a level which reflects the community's expectations and operates in a manner that is both functional and cost effective. The Transportation network had a fair value of **$19.9 million** on the 30 June 2020.

This plan assists Council in the decision-making process and is presented at a high level to provide key information that can used in the determination of levels of service and funding required. Table 1.1 identifies the asset categories in this plan, the ten (10) year average costs and any funding gap between the available renewal budget and predicted renewal requirements. Note that due to the cyclic nature of works, there may be small surpluses in any year that will be required in subsequent years.

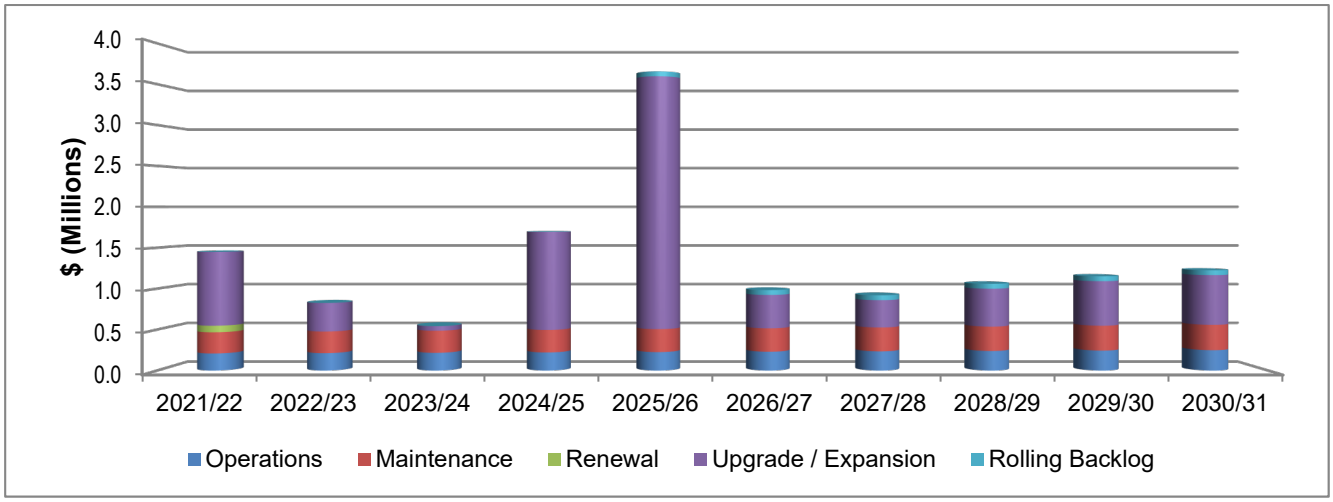
Table 1.1: Transport Asset Portfolio Overview (in 2021 $,000)

Asset	Fair Value	Replacement Cost	Operation & Maintenance	Renewal	Upgrade & New	Funding Gap	Backlog Year 1	Backlog Year 10
Footpath	4,865	5,819	38		59			
Carpark	7,476	9,359	45	8	53	6		60
Bus Shelter	212	212						
Shared Path	4,942	7,207			660			
Street Furniture	768	768	5					
Traffic Facility	1,634	1,634	423		22			
Total	**19,897**	**24,998**	**512**	**8**	**795**	**6**		**60**

***Notes**:*

The following figure identifies the proposed expenditure over the next 10 years together with the backlog if one exists in any year.

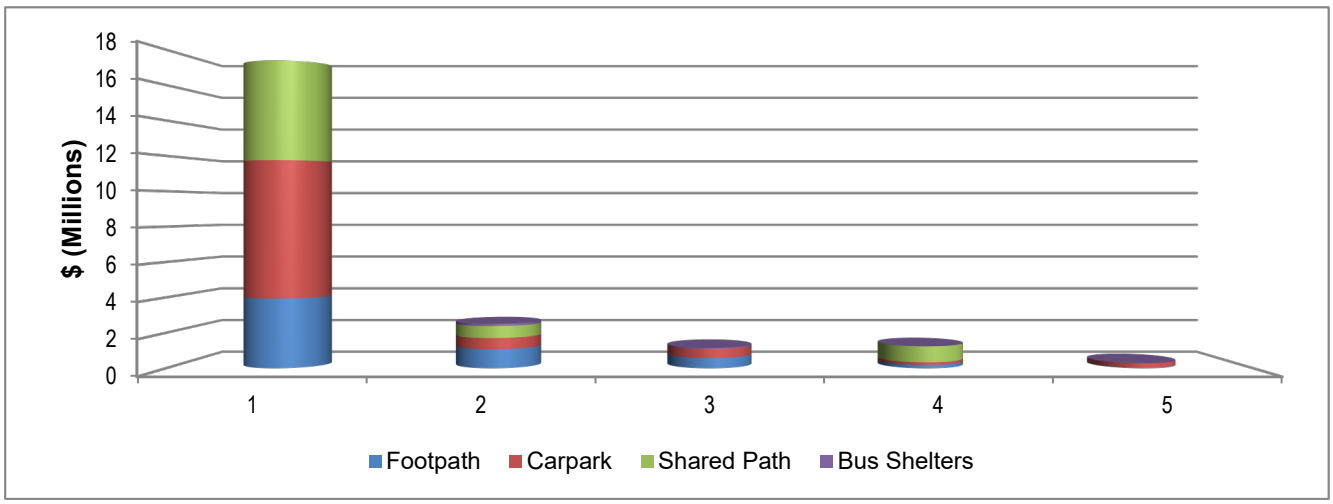
Figure 1.1: What will we spend over the next 10 years (2021 $M), and what is unfunded



The Singleton Transportation Renewal program shows that from 2025 onwards works are presently unfunded, and the rolling backlog is the amount of unfunded renewals that are predicted to be due in any one year.

The current condition of our assets is shown in the following graph based on the value of each asset in each of 5 conditions ranging from 1 to 5, with 1 being near new and 5 as a very poor asset.

Figure 1.2: What condition are our assets in ($M)



The process of managing our Transportation assets is one of continually improving the knowledge Council has including maintaining up to date asset registers, condition ratings, and the cost of work on the asset and the rate at which assets deteriorate and reach their intervention level. Section 13 contains details of the assumptions made and plans to further improve the details contained in the next Plan.

2. Strategic Objectives

The 2022-2032 Community Strategic Plan outcomes that are supported by this Transportation AMP include:

- Provide safe and well-maintained facilities and infrastructure
- Collaborate to enhance, protect and improve our environment
- Increase the planning and preparedness for natural disasters
- Infrastructure, services, facilities and Council are managed in a financially sustainable way

Singleton Council developed a comprehensive community engagement strategy to ensure a broad range of opinions; ideas and visions were captured to help shape the 2017-2027 Community Strategic Plan. The outcomes & strategies supported by that plan are detailed in the Strategic Asset Management Plan.

To assist in the delivery of the objectives in this plan, a number of key documents & systems have been prepared and should be referred to in considering the findings presented:

Table 2.1: Where can I find additional information

Document / System	Content
Community Strategic Plan	Outcomes and Strategies identified by the community
Council Asset Policy	How we manage assets; A document that broadly outlines the principles and mandated requirements for undertaking AM across the organisation in a systematic and coordinated way, consistent with the organisation's strategic plan. It provides the framework for the AM Strategy and AM Plan.
Asset Management Strategy	Overall direction of asset management and portfolio summary. The high level long term approach to AM including AM action plans and objectives for managing the assets
Asset Management Manual	Procedures and Processes that guide the management of assets
Level of Service Transport	Levels of service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.
Integrated Risk Management Framework	Coordinated activities to direct and control an organisation with regard to risk.

Document / System	Content
Civica Asset Management System (AM)	Electronic system that contains the asset register, condition ratings and used to model future renewals
Singleton Council Engineering specification	Describe Council's planning, design and construction standards for new infrastructure associated with subdivisions and development works.

3. Services Provided & Classification

Council provides Singleton and its wider rural community with Roads and Transport infrastructure to enable the safe movement of pedestrians, cyclists, motorists and freight.

The establishment of a hierarchy for transport assets provides a useful tool for the planning of Transportation systems and ensuring the efficient allocation of resources to Transport based on maintaining levels of service appropriate to their function within the hierarchy. Council's Transportation asset class and hierarchy consists of:

The Transport assets had a fair value of $19.9M on the 30 June 2020, and details of the major components are contained in Table 3.1 together with their renewal cost.

Table 3.1: What is provided

Asset	Quantity	Units	Total Replacement Cost ($)
Footpath	52.9	Km	5,818,816
Carpark	113,396	Sqm	9,358,701
Shared path	35.3	km	7,206,923
Bus Shelters	17	ea	212,236
Traffic Facilities	132	ea	1,634,731
Street Furniture	249	ea	767,960
Total			**24,999,367**

4. Levels of Service

Level of service are key business drivers and influence all AM decisions. Level of service statements describe the outputs that Singleton Council intends to deliver to its community and customers, and other stakeholders.

Level of service typically relates to service attributes such as quality, function, and capacity.

Level of service provide the link between higher levels corporate and AM Objectives and more detailed technical and operational objectives. Service levels are defined service levels in two terms, community levels of service and technical levels of service.

Transportation assets have been categorised into classes to assist in the determination of Levels of Service (LOS) which are grouped into:

- Community LOS – relates to how the community receives the service in terms of safety, quality, quantity, reliability responsiveness, cost efficiency and legislative compliance; and
- Technical LOS – are the technical measures of performance developed to ensure the minimum community levels of service are met.

4.1.1 Community Level of Service

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

4.1.2 Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Function:

- Operations – the regular activities to provide services such as, street sweeping, roadside slashing and vegetation control, signage inspections.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition, e.g. road patching, unsealed road grading, building and structure repairs.

Quality:

- Renewal – the activities that return the service capability of an asset up to that which it had originally, e.g. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement.
- Upgrade – 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.

Capacity/Utilisation:

- New service – is the activity to provide an asset that did not exist previously e.g. a new library, new kerb and gutter, new safety barriers.

Table 4.1: Community Level of Service – Quality

Community Levels of Service						Technical Service level							
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Target Expenditure**	**Actual Expenditure**	**Renewals Ratio**
Quality	Footpaths	Paths are clean and safe - with no visible damage.	Customer service requests relating to service quality	Number of CRM	Reducing the CRM number by 5% annually	Average condition of road Asset	96.22%	% of Assets in condition3 or better	Renewals	Road re-surfacing Pavement Rehabilitation Heavy Patching	$184,266	$13,000	7.1%
	Transport	Area is clean and safe - with no visible damage.	Customer service requests relating to service quality	Number of CRM	Reducing the CRM number by 5% annually	Average condition of roadside Asset		% of Assets in condition3 or better	Renewals	Asset Inspections Sign Maintenance Roadside vegetation Control	$384,346	$188,000	48.9%

Table 4.2: Community Level of Service – Function

Community Levels of Service						Technical Service level							
Service Attribute	**Asset Category**	**Level of Service Objective/statement**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Performance measure process**	**Current Level of service**	**Performance Target**	**Expenditure type**	**Activity**	**Cost / unit**	**Required Maintenance**	**Actual**
Function	Footpath	Accessibility during all typical weather events.	Customer service requests relating to service function	Number of CRM	Reducing the CRM number by 5% annually	% compliance with maintenance standard			Maintenance		$1,508.49	$89,819	$94,639
	Transport										$180.98	$160,164	$168,180

Capacity and Utilisation needs to be developed for this class of asset.

5. Condition of Our Assets

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

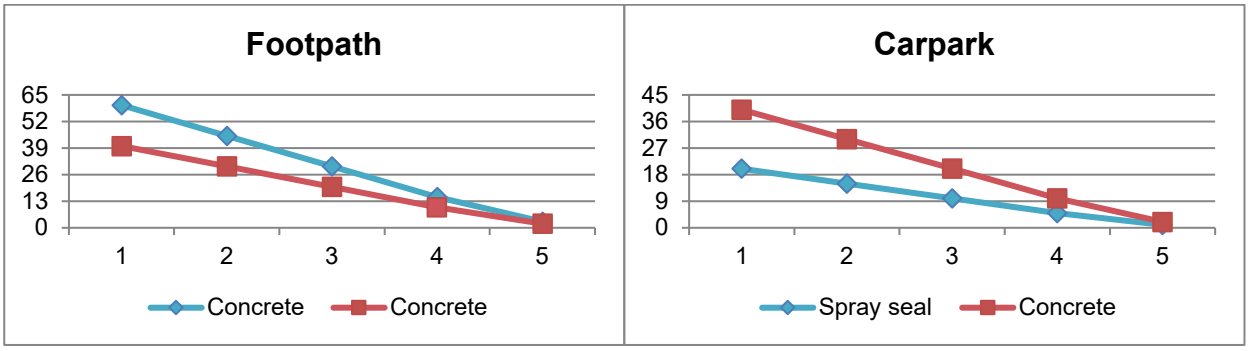
Assets are rated on a 1 (Near New) to 5 (very poor) scale consistent with industry best practice as outlined in the IPWEA International Infrastructure Management Manual. The physical condition of the transportation infrastructure is assessed using industry standard practice notes published by the Institution of Public Works Engineers Australia (IPWEA). At Singleton Council condition of transportation assets like as footpaths, shared paths and kerb and gutter will be assessed using the relevant IPWEA practice notes.

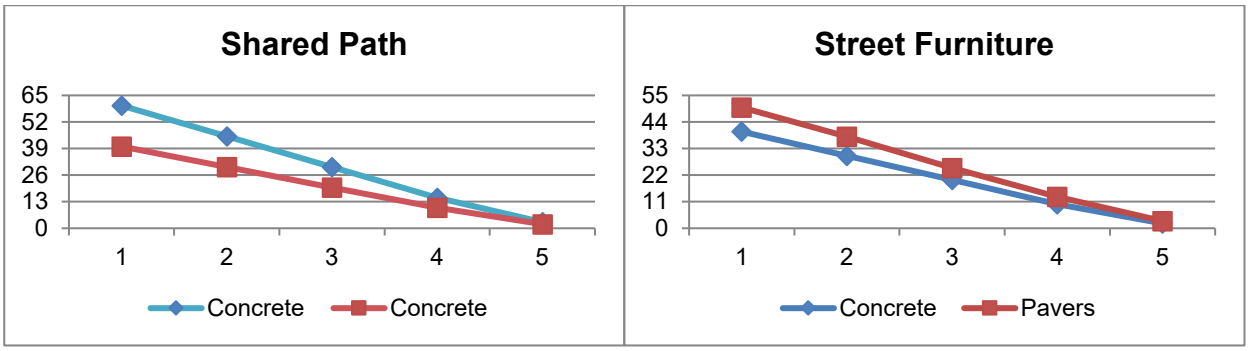
The intent of Council is not to undertake renewal on an asset until it reaches its 'Intervention Level', that is the condition at which the community has determined renewal is required based on the LoS analysis. Typically, assets will be renewed between condition 4 & 5 which ranges from fair/poor to very poor depending on their classification.

Deterioration profiles have been developed that track the rate of deterioration expected over time for each material type in each asset group. This information is used in our models to determine when an asset is expected to be due for renewal, noting that assets will only be renewed when they reach their intervention condition, not based on their age.

Figure 5.1 provides examples of several deterioration profiles used with the vertical column showing the years remaining at a particular condition. For example, with a carpark at a condition 3 will last another 9 years for a spray seal surface and nearly 20 years for concrete before the asset reaches the end of its service at condition 5.

Figure 5.1: At what rate do we expect our assets to deteriorate





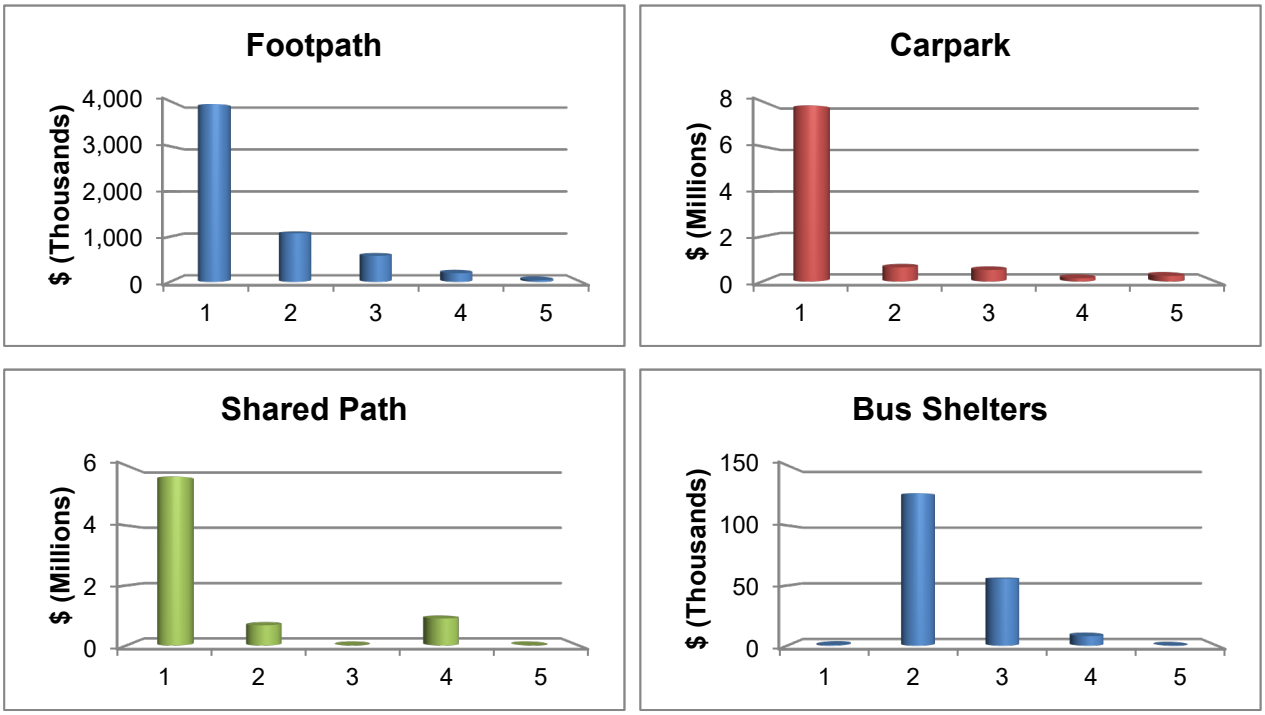
Using the information from the curves above and the intervention level set for the class of an asset we can determine the expected useful lives of our assets as detailed in table 5.1 below.

Table 5.1: What are our Intervention Levels to Renew an Asset

Component	Material	Intervention Level	Useful Life
Carpark	Asphalt	4	40
Carpark	Spray seal	4	30
Carpark	Gravel	4	30
Shared Path	Asphalt	4	40
Shared Path	Concrete	4	60
Shared Path	Gravel	5	10
Traffic Facility	Asphalt	4	40
Traffic Facility	Concrete	4	60
Street Furniture	Timber	4	30
Street Furniture	Aluminium	4	40
Street Furniture	Recycled Plastic	5	60

Each asset's condition is maintained in the Asset Register and the graphs below gives the condition profile based on the renewal dollar value of the top 4 valued assets in each condition.

Figure 5.2: What Conditions are our top assets in



6. Operations

Operational activities are those regular activities that are required to continuously provide the service including management expenses, street lighting, asset inspection, street furniture, signs, line marking and other overheads.

Council conducts regular inspections of the transportation network in accordance with Council's Asset Management Policy in order to develop and update annual cyclic maintenance programs including:

Table 6.1: When do we undertake Inspections

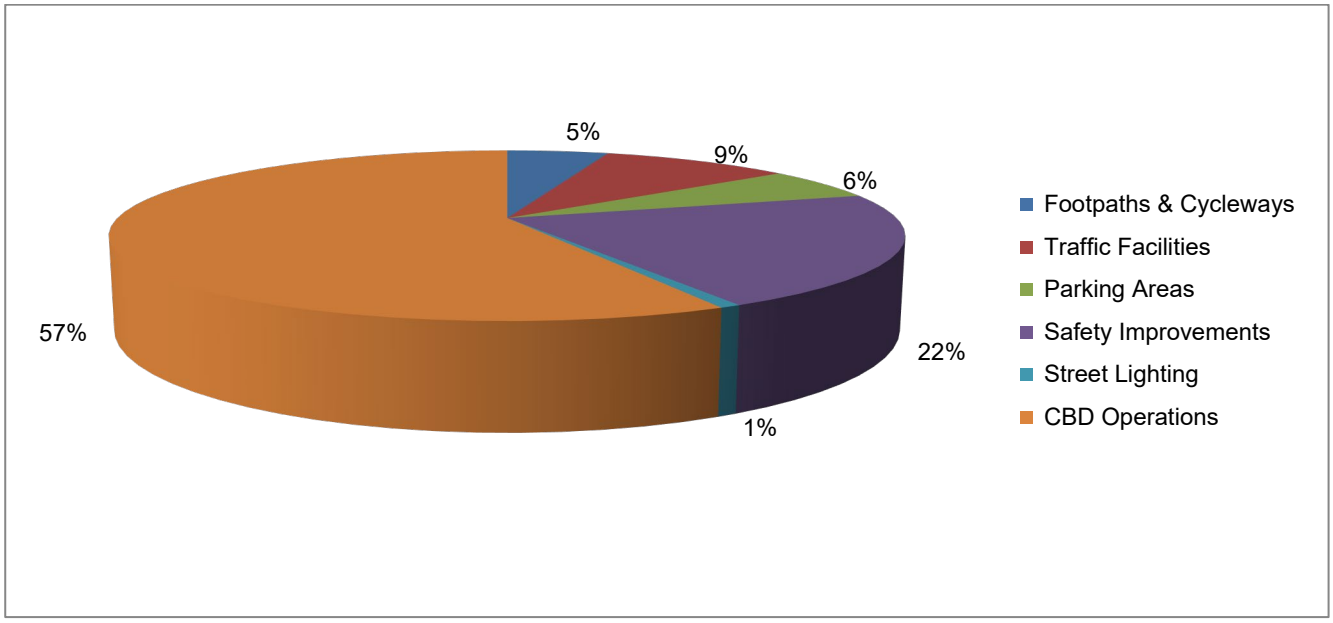
Inspection Frequencies & Responsible Department				
Transportation Asset	Proactive Inspection Defects	Responsible Department	Programmed Inspection Condition – Visual (condition 4&5)	Responsible Department
Regulatory Signage	As part of the road inspection conducted quarterly	Civil Maintenance	Nil	Asset Planning
Traffic Safety Facilities	Annually	Civil Maintenance	Biennially	Asset Planning
Footpaths	6 monthly	Civil Maintenance	Biennially	Asset Planning
Shared Pathways	6 monthly	Civil Maintenance	Biennially	Asset Planning
Carparks	Bi-annually	Civil Maintenance	Biennially	Asset Planning
Street Furniture	Annually	Civil Maintenance	Biennially	Asset Planning
Bus Shelter	Annually	Civil Maintenance	Biennially	Asset Planning

Table 6.2: What are our Operational Costs? ($000)

Item	Budget Available
Footpaths & Cycleways	11
Traffic Facilities	22
Parking Areas	14
Safety Improvements	49
Street Lighting	2
CBD Operations	131
Total	**229**

Gap analysis of available budget and required budget will be developed in next revision.

Figure 6.1: What is the breakup of our Operational Costs



7. Maintenance

Routine maintenance is the regular on-going work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and need immediate repair to make it operational again. It may be either planned where works are programmed in or cyclic in nature or reactive in response to storm damage, vandalism etc. The majority of the maintenance undertaken by Council is planned or cyclic in nature.

Planned or reactive maintenance are defined as follows:

- Reactive maintenance – unplanned repair work carried out in response to service requests.
- Planned maintenance – repair work that is identified and managed through a maintenance management system (MMS) and level of service activities. These 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.

The level of service and standards of care for maintenance is carried out in accordance with Council's Asset Management Policy and the Transportation Level of Service document. Current maintenance expenditure levels are considered to be adequate to meet required service levels.

Future revision of this asset management plan will include linking required maintenance expenditures with required service levels in the Community Strategic Plan.

Table 7.1: What are our Maintenance Activities and the frequency we undertake them

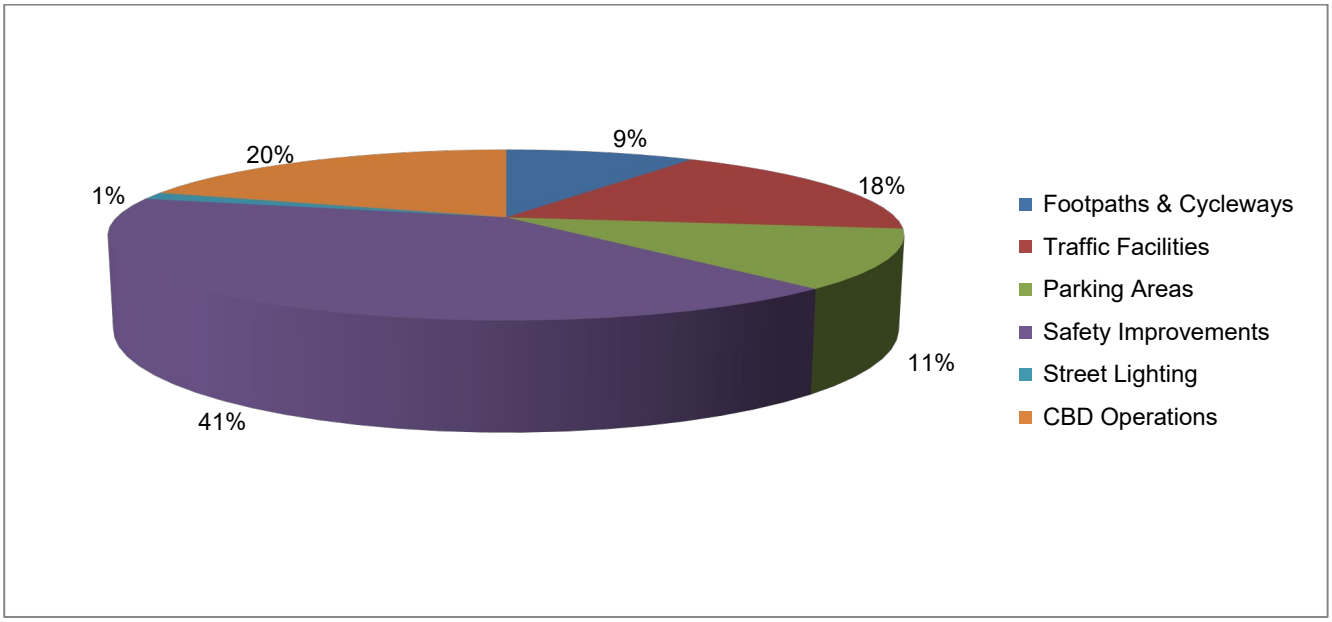
Activity Name	Expected Timing	Frequency
Regulatory signage inspections	As per road inspections that are carried out.	Quarterly
Footpath inspections	As per planned inspections	Annually
Shared paths	As per planned inspections	Annually
Carparks	As per Strategy and Planning	Biennially
Street Furniture	As per CRM request or inspection officer	Sporadically
Street Lighting	As per CRM request or inspection officer	Sporadically
Safety Improvements	As per CRM request or inspection officer	Sporadically
Bus shelters	As per CRM request or inspection officer	Sporadically
CBD Operations	As per planned inspections, CRM requests	Sporadically

Table 7.2: What are our Maintenance Costs ($,000)

Item	Budget Available
Footpaths & Cycleways	27
Traffic Facilities	50
Parking Areas	32
Safety Improvements	115
Street Lighting	4
CBD Operations	56
Total	**283**

Gap analysis of available budget and required budget will be developed in next revision.

Figure 7.1: What is the breakup of our Maintenance Costs



Adjusting Levels of Service

The opportunity to adjust the level of service provided is primarily through community feedback. Levels of Service can be further investigated and costed to ensure that the community is satisfied with the delivery of the service and the costs associated with that service.

Some methods of reducing costs can be investigated such as

- Reducing the amount of street furniture within an area of town that has limited use.
- The time it takes to react to repair defects, decreasing the frequency of street sweeping, increasing maintenance activities such as signage repair, bin replacement.

8. Capital Renewal / Rehabilitation

This includes work on an existing asset to replace or rehabilitate it to a condition that restores the capability of the asset back to that which it had originally. The intervention level and estimated useful lives are contained in Table 5.1.

This Asset Management Plan contains an analysis based on broad assumptions and best available knowledge to date. Modelling is not an exact science, so we deal with long term averages across the entire asset stock. Work will continue on improving the quality of our asset registers and systems to increase the accuracy of our renewal models. Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than the full replacement cost.

Footpath renewals are based on the risk that the asset poses to pedestrians. Concrete footpath and cycleway deterioration is generally the result of tree root damage. Asphalt footpath and cycleway deterioration consists of age deterioration causing surface irregularities which may be caused by tree root damage. Renewal work is carried out in accordance with the following standards and specifications:

- Singleton Council Construction Specification & Relevant Australian Standards
- RMS Road Maintenance Contract & Road Works Quality Assurance Specifications

Assets requiring renewal will be generally identified from estimates of remaining life and condition assessments obtained from the asset register and models. Candidate proposals will be inspected to verify the accuracy of the remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

Details of planned renewal over the next 4 years are listed in Appendix B. The first year of the program will be considered in the development of the next Operational Plan and the remaining 3 years of work will be assessed each year to confirm that the asset has reached its intervention level prior to the work being scheduled.

For this asset group, an analysis has been undertaken to determine assets that are already at or above intervention level that are not able to be funded in the next Operational Plan. This work is quantified in the 'Backlog' columns. Note a negative figure in a backlog column is indicative of the work required that year only, practically, those funds would be diverted to another program that has a deficit that year. Budget required and average gap figures are based on a 10 year annual average amount.

Table 8.1: What are our Renewal Costs, Gap and Backlog (2021 $,000)

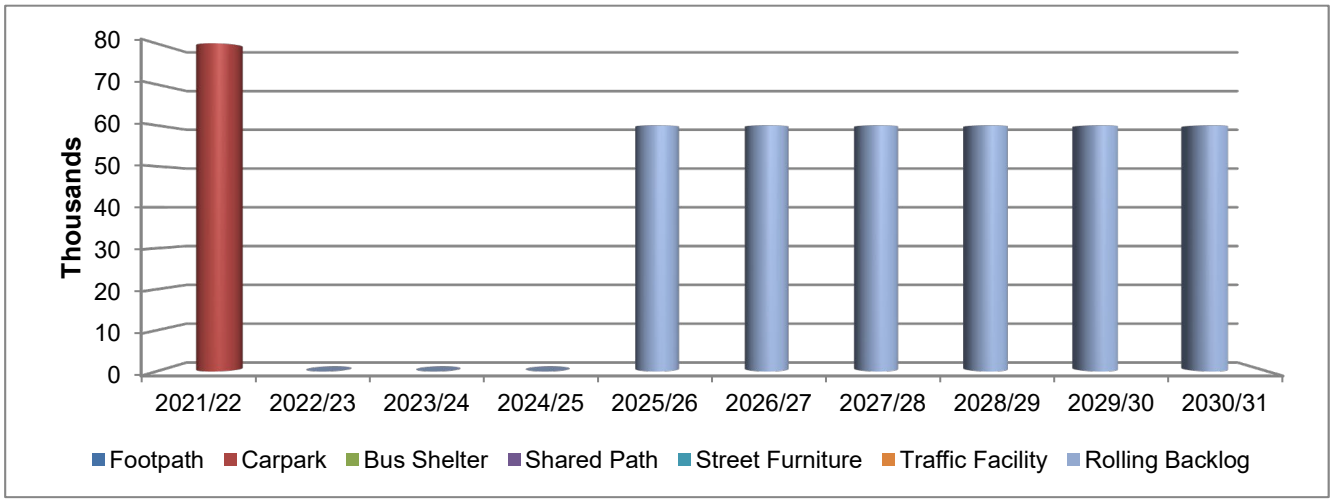
Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Footpath					
Carpark	8	14	6		60
Bus Shelter					
Shared Path					
Street Furniture					

Activity	Budget	Required	Gap	Backlog Year 1	Backlog Year 10
Traffic Facility					
Total	**8**	**14**	**6**		**60**

The following graph shows the proposed expenditure on renewals over the next 10 years and the rolling backlog in any one year over that period. Figure 8.1 indicates that, based on current projections, Council will spend an average of approximately $8,000 per annum on Transport renewals. Majority of projects in this asset class are upgrade/new and development of new footpath strategy and bike plan strategy have a significant impact on planning of this asset class.

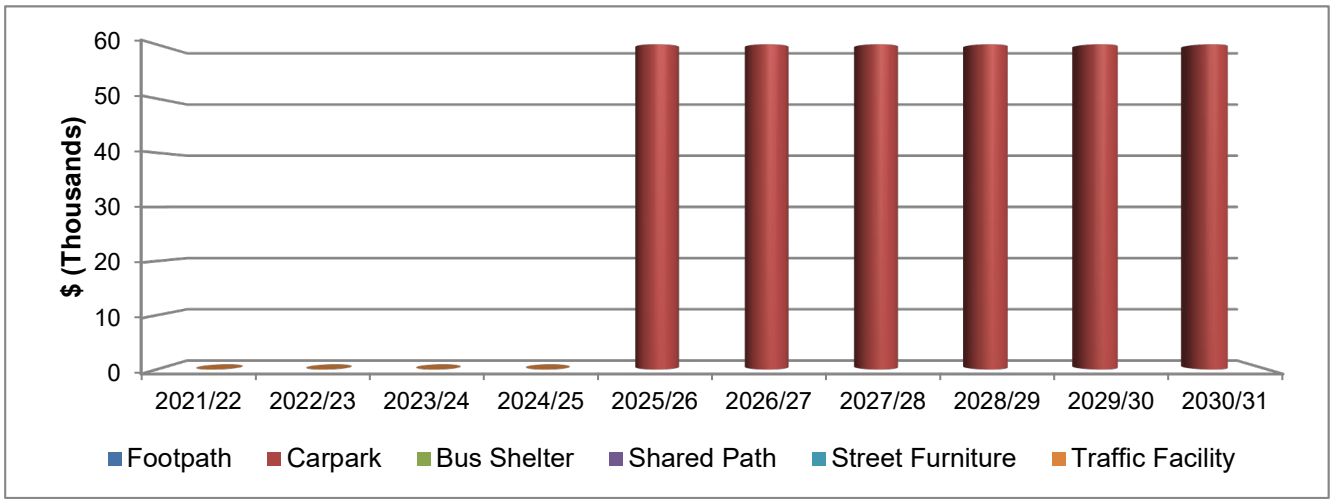
Note: Majority of assets on this asset class will be part of new or upgrade activities, such as footpath and share path categories.

Figure 8.1: What will we spend (2021 $,000) over the next 10 years on Renewal



The only identified renewal project unfunded in this AMP is the renewal of the Works depot Carpark – required in 2025/26.

Figure 8.2: What are the projected rolling backlog splits ($,000)



Lifecycle costs

The lifecycle costs are determined based on the total cost of ownership of each asset including operations, maintenance, renewal and disposal costs. The average annualised lifecycle costs for each component is presented in table 8.2.

Table 8.2: What are our Lifecycle Costs ($000)

Asset	Quantity	Units	O&M	Renewal	Disposal	Average Annual	$/Unit p.a
Footpath	50.4	km	38.2	99.4	9.9	147.5	2,925.95
Carpark	98,176.0	sq m	45.1	225.0	22.5	292.7	2.98
Shared path	34.5	km	0.0	185.1	18.5	203.7	5,898.71
Total			**83.3**	**509.6**	**51.0**		

9. Capital Upgrades & New Assets

Upgrades enhance an existing asset to provide a higher level of service, for example widening an existing road seal. New assets are those created to meet an additional service level requirement or increase the size of a network, for example, new subdivisions, or extension of the footpath or shared path network.

The requirements for new assets may result from growth, social or environmental needs. The impact from growth is included in the demand analysis within the Asset Management Strategy.

Both capital types may be funded at least in part through Developer Contributions in the form of a Section 64 or 7.11 Contribution, a Voluntary Planning Agreement, or as part of a subdivision development. Section 7.11 of the Environmental Planning and Assessment Act 1979 allows Council to require developers to contribute towards meeting the increased demand for public amenities and services created by new development. Council's S711 Development Contribution Plan provides a means for collecting relevant contributions in respect to road upgrading, traffic management and car parking.

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

Council has developed a framework for the prioritisation of capital projects and that information is used in the consideration of all new projects above the threshold set in the framework. Included in the analysis is the identification of life cycle costs as outlined in the Asset Management Strategy.

Council needs to review footpath and bike plan strategy for the expansion of transportation assets with the following new / upgraded assets proposed over the next 10 years to meet demand and safety improvement requirements. Table 9.1 indicates the major projects (a complete list is contained in Appendix C). The unfunded projects are the $**1,065,000** Strategy works.

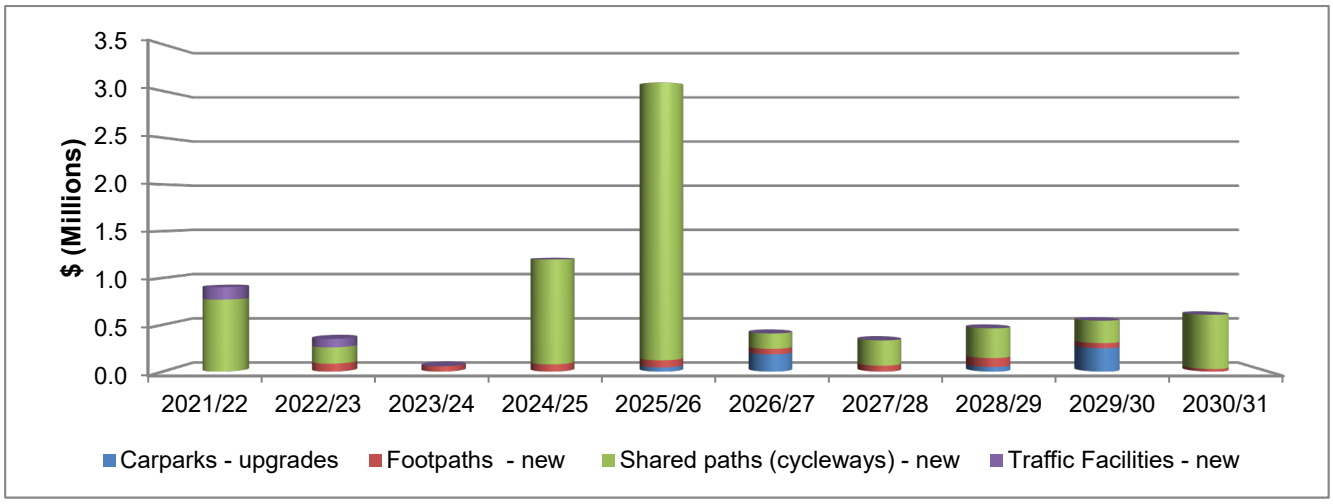
Table 9.1: What are the upgraded / new assets are proposed over the next 10 years ($)

Project	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects					
Footpath- Hunter Street from Church street to George Street-1.2 wide-Length=87 m		18,813			18,813
Footpath- Queen Street from Boundary street to Bonal Street-2.5 wide-Length=337 m		173,828			173,828
Footpath- Wynyard Street from Bathurst St (west Side) to Church Street-1.2 wide-Length=186		40,098			40,098

Project	2021/22	2022/23	2023/24	2024/25	Total
Footpath- Wynyard Street from Bathurst St (west Side) to Church Street-1.2 wide-Length=58		12,470			12,470
Footpath- Ryan Ave from Hunter St Intersection to John street (South)-1.2wide-Length=62		13,438			13,438
Footpath- John Street from George St to Campbell street (South)-1.2 wide-Length=82			17,630		17,630
Footpath- Campbell Street from John St intersection to New England Hwy-1.2 wide-Length=104			22,468		22,468
Footpath- Blaxland Ave - Singleton Heights Sports Centre to Wakehurst Cres.	173,828				173,828
Footpath- Wilcox Ave from Bower Parade (North side) to Blaxland Ave -Length=75			16,233		16,233
Footpath-Bourke Street from Elizabeth Street to Macquarie Street -1.2m wide-Length=91 m				19,565	19,565
Footpath-Civic Avenue from Queen St to Combo Lane-1.2m wide-Length=126 m				27,198	27,198
Footpath-Combo Lane from Queen St to Civic Ave-1.2m wide-Length=141m				30,423	30,423
Bike track-Singleton Heights 01 Bridgman Road - Gardner Circuit-Glass Parade Local				46,000	46,000
Bike track-Singleton 03 York Street - New England Highway - John Street Local				154,000	154,000
Bike track-Singleton 13 John Street - John Street/ Cook Park connection - Dunolly Road - Local				1,000	1,000
Bike track-Singleton 15 Civic Avenue Queen Street - Combo Lane Local				36,000	36,000

Project	2021/22	2022/23	2023/24	2024/25	Total
Bike track-Hunterview 04 Acacia Circuit - Allan Bull Reserve – Wilkinson Boulevarde Local				7,000	7,000
Bike track-Singleton 06 Boundary Street - Queen Street - New England Highway Local				127,000	127,000
Old Goorangoola Road - Road Safety Route Treatment	132,763				132,763
Pedestrian Fencing - Corner Bridgman Road and NEH to Blaxland Ave		40,000			40,000
Bowmans Creek Road- Road Safety Route Treatment		50,000			50,000
Combo Lane Cycleway Bridge The works are to be funded through Council's Community Enhancement Program					
Milbrodale Road (Broke) - Broke to Putty Road extension of village cycleway on Milbroadale Rd - Stage 1				750,000	750,000
Broke Road cycleway (Blaxland St to Milbrodale Road east side of Bridge) and to shop	595,000				595,000
Total Funded	**901,591**	**348,647**	**56,330**	**1,198,185**	**2,504,753**
Unfunded Projects					
Singleton Heights Sports Centre - Carpark upgrade			200,000		200,000
Townhead Park - RV and Bus Parking area (Transportation)			450,000		450,000
Civic Park - Carpark upgrade				250,000	250,000
Vineyard Gateway (9) Precinct signs.				165,000	165,000
Total Unfunded			**650,000**	**415,000**	**1,065,000**

Figure 9.2: What will we spend ($M) over the next 10 years on Upgraded or New Assets



10. Disposal Plan

No redundant assets requiring decommissioning and disposal are anticipated.

11. Financial Plan

As part of its funding strategy, Council has the option to supplement any or all of the current or new Roads proposals that come into consideration for construction with borrowings. This strategy is heavily influenced by the monitoring of Council's Debt Service Ratio.

The debt service ratio is a measure of the degree to which revenues are committed to servicing debt. The purpose of the ratio is to assess the impact of loan principal and interest repayments on the discretionary revenue of the Council. Council's long term target is to maintain a ratio of less than 7.49%.

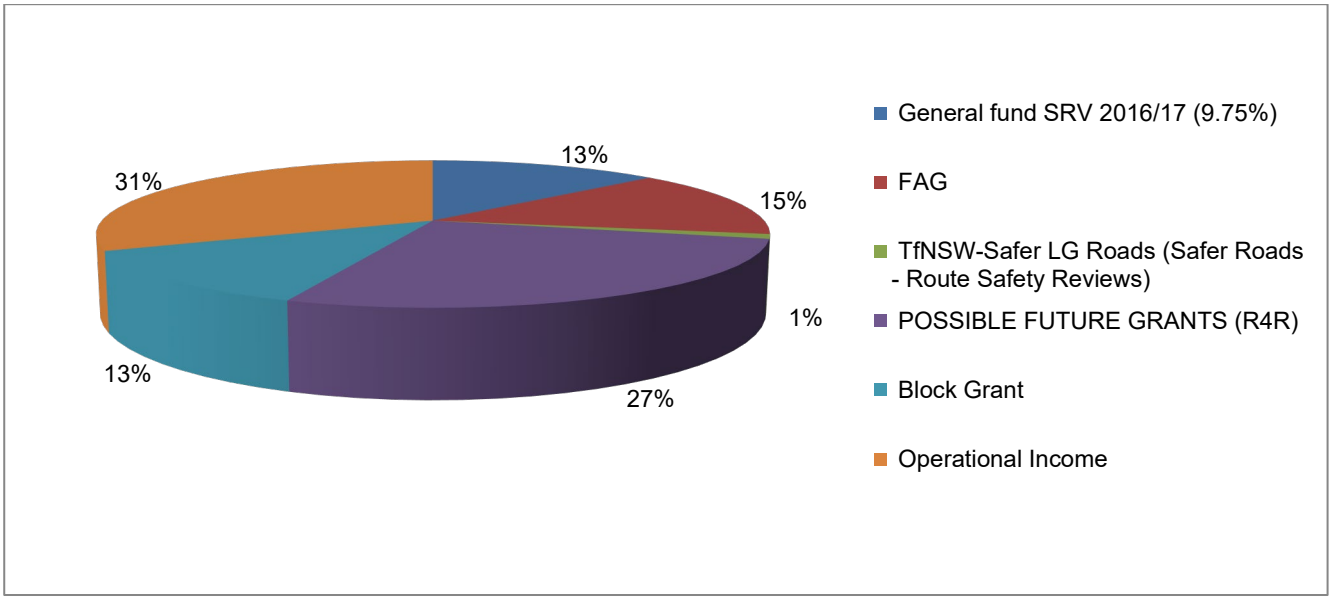
A summary of the funding requirements and expenditure over the next 10 years is included in Appendix D, with the projected budget amounts being based on 2021 dollars and increased for growth according to Long Term Financial Plan assumptions.

Funding for management of assets can come from a variety of sources as detailed in the table below.

Table 11.1: Where does our Income come from ($,000)

Item	Budget Available
General fund SRV 2016/17 (9.75%)	173
FAG	194
TfNSW-Safer LG Roads (Safer Roads - Route Safety Reviews)	13
POSSIBLE FUTURE GRANTS (R4R)	355
Block Grant	166
Operational Income	414
Total	**1,315**

Figure 11.2: What is the breakup of our income streams



12. Plan Improvements

In addition to the Asset Management Strategy improvements, the following items outline proposed improvements to the way in which transportation assets are managed. It is expected that this will be an ongoing process, as part of good asset management practice is to continually review and improve the methodology used.

Also, there is a general improvement plan in place for asset management framework PM20_80014 - Asset Management Framework Improvement plan

Plan Improvement	Timeframe
Finalise condition assessment manual	June 2022
Develop catalogue for treatment/rehabilitation unit rate	June 2022
Finalising strategic modelling of Transportation asset class	June 2022
Updating and adding condition of assets against financial attribute (CVR)	June 2022
Check financial coding of CVR and relocate the assets to the appropriate category	June 2022
Developing Planned maintenance program	June 2023
Finalising Transportation strategy including disability requirements	June 2024
Develop in-depth renewal program for transportation assets	June 2023
Finalise Transportation Level of Service	October 2022
Ongoing maintenance of asset register	On going

It must be noted that these items are part of a continual process and need to be reviewed on a yearly basis as to progress and validity.

13. Risk Management Plan

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council operations as far as reasonably practicable. To facilitate this process an Enterprise Risk Management Plan is being re-developed which includes the management of risks for each of its assets. From this Plan the following key Risks have been identified: Full risk register of Infrastructure Services can be viewed at CM9 record 18/8934

The key Risks identified in this Plan are summarised in the following Table 14.1.

Table 13.1 Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
failure of critical asset in the transportation asset class	injury/fatality damage to reputation loss of amenity for community litigation loss of service	9	Defining level of service Ongoing monitoring of condition of assets

One of the outcomes of this assessment is the determination of **Critical Assets.** Critical assets are specific assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenance activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.

Criticality can be assessed by applying broad assumptions about the implications of failure, for example, whether the non-availability of an asset would have a significant impact on the local or possibly the national economy. Using this approach, simple criteria can be defined to assess the loss of service. For example, the loss of use of a transportation asset may:

- affect or disconnect specific parts of a community,
- affect businesses of different sizes and significance, and
- affect specific numbers of road users/hour.

Table 13.2 Criticality Ranking

Asset Class	Asset Category	Criticality Ranking	Criticality Definition
Transportation			
	Footpath, cycle path, traffic furniture, carpark, bus shelter		
		Very High (4)	Loss of asset would cause **significant disruption**. Could cause severe damage to property like shops and businesses in heavy rain events or excessive flooding in residential areas.
		High (3)	Loss of asset would cause **some disruption**. These assets result in flooding of the transportation network.
		Medium (2)	Loss of asset would cause **minor impact**. Has limited concerns for the network, often in road reserves.
		Low (1)	Loss of asset would have **virtually no impact**.

The identification of critical transportation assets is identified in Table 13.3 where there is a potential for failure to risk public safety or property have also been identified as critical.

Table 13.3 Critical Assets

Asset Number	Transportation	Critical Failure Mode	Location	Criticality Ranking	Comments
	Bus Shelters				
30327	Bus Shelter		Outside Heights Shopping Centre	3	Supporting community services
30332	Bus Shelter		At Gowrie St Mall	3	
30328	Bus Shelter		Outside the Hospital	3	
	Carparks				

Asset Number	Transportation	Critical Failure Mode	Location	Criticality Ranking	Comments
30340	Carpark		Singleton Council Carpark 1	3	
30343	Carpark		Singleton Council Carpark 2	3	
30349	Carpark		Sheps Park Carpark	3	
30379	Carpark		William Street Carpark	3	
30403	Carpark		Laurel Ln Car Park 2	3	
30406	Carpark		Laurel Ln Car Park 1	3	
91953	Carpark		Visitor Information Centre Carpark	3	
	Footpath				
29516	Anns Lane		Concrete	3	Supporting businesses and community
29587	King St		Concrete	3	
29601	Blaxland Ave		Concrete	3	
29553	York St		Concrete	3	Supporting schools
35748	George Street		Concrete	3	
35696	John St		Paved	3	
29603	Dorsman Dr		Concrete	3	
29580	Gowrie St		Paved	3	
29524	Burns Ave		Asphalt	3	
	Shared Paths				

Asset Number	Transportation	Critical Failure Mode	Location	Criticality Ranking	Comments
45542	Cycleway		Queen Street - Dr Maffey Drive to Civic Avenue	3	
45543	Cycleway		NEH - Bridge to Lioness Park	3	
45546	Cycleway		Bridgman Road - 1. NEH to Blaxland Ave	3	
45572	Cycleway		Queen Street - Civic Ave to Combo Lane	3	

Transportation also has risks associated with initial construction and maintenance activities. These risks are managed under specific risk management plans (such as traffic control plans and Safe Work Method Statements) and in accordance with applicable Work Health and Safety requirements.

Risks associated with the degradation of assets are managed by the periodic inspection (proactive) or through customer service requests under the requirements and response times outlined in Council's transportation level of service.

The Asset Classification Standard (ACS) defines the road in terms of its position within the network hierarchy and describes its functional characteristics relative to other ACS levels. Each road is managed, inspected, maintained and repaired in accordance with the Maintenance Service Level (Specification) Standard applicable to the particular ACS.

The Maintenance Service Level (MSL) is described by maintenance activities including responses for different defects (kerb and gutter, footpath, potholes, heavy patching, re-sheeting etc which must be carried out to achieve a standard (both qualitative and quantitative) outcome.

Appendix A: Maintenance Program

To be developed.

Date Inspected	Inspection Number	Location	Length m	Width m	Depth m	Total m2

Appendix B: Renewals

The following programs are based on best available information with the first year of works expected to be delivered within the currently identified budgets. After the first year, the following years will be validated each year with a review of the condition so that assets are only renewed at the intervention level. Works that can't be funded within the 4 years but which are expected to be due based on modelling, are grouped as 'unfunded'.

14.1 Carparks ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	Total
Funded Projects						
William Street Carpark - Carpark upgrades/ reseal	Condition	50,000				50,000
Men's Shed carpark reseal	Commitment	30,000				30,000
Total Funded		80,000				80,000
Unfunded Projects						
Total Unfunded						

Appendix C: 4-year Program for Upgrade / New Capital Works ($)

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Funded Projects												
Footpath- Hunter Street from Church street to George Street-1.2 wide-Length=87 m	Strategy		18,813									18,813
Footpath- Queen Street from Boundary street to Boonal Street-2.5 wide-Length=337 m	Strategy		173,828									173,828
Footpath- Wynyard Street from Bathurst St (west Side) to Church Street-1.2 wide-Length=186	Strategy		40,098									40,098
Footpath- Wynyard Street from Bathurst St (west Side) to Church Street-1.2 wide-Length=58	Strategy		12,470									12,470
Footpath- Ryan Ave from Hunter St Intersection to John street (South)-1.2wide-Length=62	Strategy		13,438									13,438
Footpath- John Street from George St to Campbell street (South)-1.2 wide-Length=82	Strategy			17,630								17,630
Footpath- Campbell Street from John St intersection to New England Hwy-1.2 wide-Length=104	Strategy			22,468								22,468
Footpath- Blaxland Ave - Singleton Heights Sports Centre to Wakehurst Cres.	Strategy	173,828										173,828
Footpath- Wilcox Ave from Bower Parade (North side) to Blaxland Ave -Length=75	Strategy			16,233								16,233
Footpath-Bourke Street from Elizabeth Street to Macquarie Street -1.2m wide-Length=91 m	Strategy				19,565							19,565
Footpath-Civic Avenue from Queen St to Combo Lane-1.2m wide-Length=126 m	Strategy				27,198							27,198
Footpath-Combo Lane from Queen St to Civic Ave-1.2m wide-Length=141m	Strategy				30,423							30,423
Footpath-Macquarie Street from John Street to George Street-1.2m wide-length= 29m	Strategy					6,343						6,343
Foothpath-Church Street from Wynard Street to Collett Ave-1.2m wide-Length=215m	Strategy					46,225						46,225
Footpath-Bourke Street from William Street to Hunter Street-1.2m wide-Length=108m	Strategy					23,328						23,328
Footpath-Bourke Street from Macquarie Street to Campbell Street-1.2m wide-Length=38m	Strategy						8,170					8,170
Footpath-Bourke Street from Pitt Street to William Street-1.2m wide-Length=111	Strategy						23,973					23,973
Footpath-Brisbane Street from Doyle Street to Howe Street-1.2m wide-Length=122	Strategy						26,338					26,338
Footpath-Market Street from Bishopgate Street to Patrick Street-1.2m wide- Length=153m	Strategy							32,895				32,895

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Footpath-Pitt Street from Church Street to George Street-1.2m wide- Length=108 m	Strategy							23,328				23,328
Footpath-Sussex Street from Pitt Street to William Street-1.2m wide-Length=32 m	Strategy							6,988				6,988
Footpath-William Street from Church Street to George Street-1.2m wide-Length=103 m	Strategy								22,253			22,253
Footpath-Church Street from Collett Ave to York Street- 1.2m wide-Length=165m	Strategy								35,475			35,475
Footpath-Church Street from William Street to Castlereagh Street -1.2m wide-Length=173 m	Strategy								37,303			37,303
Footpath-Bathurst Street from Wynyard St to Gas St-1.2m wide-Length=172m	Strategy									37,088		37,088
Footpath-Bathurst Street from York St to William St-1.2m wide-Length=40m	Strategy									8,600		8,600
Footpath-Church Street from Kelso St to Wynyard St-1.2m wide-Length=42m	Strategy									9,030		9,030
Footpath-Collett Avenue from Church Street to Sussex Street-1.2m wide-Length=23m	Strategy										4,945	4,945
Footpath-Barton Avenue from Church Street to Sussex Street-1.2m wide- Length=84m	Strategy										18,168	18,168
Footpath-Pelerin Avenue from Barton Avenue to Sussex Street-1.2m wide-Length=24m	Strategy										5,160	5,160
Bike track-Singleton Heights 01 Bridgman Road Gardner Circuit Glass Parade Local	Strategy				46,000							46,000
Bike track-Singleton 03 York Street New England Highway John Street Local	Strategy				154,000							154,000
Bike track-Singleton 13 John Street John Street/ Cook Park connection Dunolly Road Local	Strategy				1,000							1,000
Bike track-Singleton 15 Civic Avenue Queen Street Combo Lane Local	Strategy				36,000							36,000
Bike track-Hunterview 04 Acacia Circuit Allan Bull Reserve Wilkinson Boulevarde Local	Strategy				7,000							7,000
Bike track-Singleton 06 Boundary Street Queen Street New England Highway Local	Strategy				127,000							127,000
Bike track-Singleton 11 John Street Dunolly Road Dr Maffey Drive Local	Strategy					1,000						1,000
Bike track-Singleton 16 Queen Street Combo Lane Glendon Road Local	Strategy					164,000						164,000
Bike track-Hunterview 06 Dominion Avenue Casey Drive Casey Drive Local	Strategy					4,000						4,000

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Bike track-Hunterview 07 Casey Drive Dominion Avenue Graham Avenue Local	Strategy						18,000					18,000
Bike track-Singleton 08 Bourke Street Soapsuds Lane York Street Local	Strategy						80,000					80,000
Bike track-Singleton 14 John Street Cook Park Dr Maffey Drive Local	Strategy						66,000					66,000
Bike track-Singleton 02 Market Street New England Highway Bishopgate Street Local	Strategy							6,000				6,000
Bike track-Singleton 04 Kelso Street/ Munro Lane/ Munro Street New England Highway John Street/ Glenridding Road Local	Strategy							86,000				86,000
Bike track-Darlington & Gowrie 01 Darlington Road/ Simpson Terrace Dunolly Road New England Highway underpass Local	Strategy							178,000				178,000
Bike track-Singleton 10 Dunolly Road/ John Street intersection Local	Strategy								40,000			40,000
Bike track-Darlington & Gowrie 03 Hunter River Dunolly Roadbridge Acacia Circuit/ Col Fisher Park Local	Strategy								270,000			270,000
Bike track-Hunterview 08 Graham Avenue Casey Drive Pioneer Road Local	Strategy								8,000			8,000
Bike track-Hunterview 09 Wilkinson Boulevard Acacia Circuit Dominion Avenue Local	Strategy									45,000		45,000
Bike track-Singleton 05 Ryan Avenue John Street Rose Point Road Local	Strategy									28,000		28,000
Bike track-Jerrys Plains 02 Doyle Street Piribil Street Park Street Local	Strategy									28,000		28,000
Bike track-Singleton 07 Bishopgate Street Queen Street Boundary Street Local	Strategy										80,000	80,000
Bike track-Broke 04 Milbrodale Road Wollombi Street/ Broke Road Western limit of Herbert Reserve Local	Strategy										11,000	11,000
Bike track-Bulga 02 Wambo Road Putty Road Town limits Local	Strategy										3,000	3,000
Bike track-Bulga 03 Inlet Road Putty Road Town limits Local	Strategy										3,000	3,000
Bike track-Hunterview 01 Allan Bull Reserve North playing field Old Wattle Ponds Road Public Recreation RE1	Strategy										43,000	43,000
Bike track-Hunterview 02 Allan Bull Reserve Existing shared pathway Old Wattle Ponds Road Public Recreation RE1	Strategy										16,000	16,000
Bike track-Hunterview 03 Allan Bull Reserve Existing shared pathway, north of playing field Bridgman Road Public Recreation RE1	Strategy										19,000	19,000
Bike track-Darlington & Gowrie 02 Gowrie Release Area Darlington Road Mountain bike trial Public Recreation RE2	Strategy										17,800	17,800

Project	Driver	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Bike track-Hunterview 05 Benjamin Circuit development loop Allan Bull Reserve Hunter River General Residential R1	Strategy										104,000	104,000
Bike track-Hunterview 10 Col Fisher Park Pioneer Road Wilkinson Boulevard Public Recreation RE1	Strategy										122,000	122,000
Bike track-Singleton 09 Rose Point Park Existing shared pathway James Cook Park Public Recreation RE1	Strategy										76,000	76,000
Bike track-Singleton Heights 03 Robinson Reserve Existing shared pathway Lachlan Avenue Public Recreation RE1	Strategy										84,000	84,000
Old Goorangoola Road - Road Safety Route Treatment	Level of Service	132,763										132,763
Pedestrian Fencing - Corner Bridgman Road and NEH to Blaxland Ave	Level of Service		40,000									40,000
Bowmans Creek Road- Road Safety Route Treatment	Level of Service		50,000									50,000
Allan Bull Reserve - Wattle Ponds Area - Carpark Upgrades	Level of Service					45,000						45,000
Lake St Clair - Improve site access through formalised road network (transportation)	Strategy						185,000		50,000			235,000
Burdekin Park - Bus stop upgrade and shelter (transportation)	Strategy									250,000		250,000
Cycleway in Branxton at McMullins Road New pathway/cycleway through Elderslie Road to connect North Branxton to Branxton town centre -1,202 m of gravel cycleway Branxton and North Branxton	Commitment									138,230		138,230
Combo Lane Cycleway Bridge The works are to be funded through Council's Community Enhancement Program	Strategy					2,000,000						2,000,000
Milbrodale Road (Broke) - Broke to Putty Road extension of village cycleway on Milbroadale Rd - Stage 1	Strategy				750,000							750,000
Milbrodale Road (Broke) - Broke to Putty Road extension of village cycleway on Milbroadale Rd - Stage 2	Strategy					800,000						800,000
Broke Road cycleway (Blaxland St to Milbrodale Road east side of Bridge) and to shop	Commitment	595,000										595,000
Total Funded		**901,591**	**348,647**	**56,330**	**1,198,185**	**3,089,895**	**407,480**	**333,210**	**463,030**	**543,948**	**607,073**	**7,949,388**
Unfunded Projects												
Singleton Heights Sports Centre - Carpark upgrade	Level of Service			200,000								200,000
Townhead Park - RV and Bus Parking area (Transportation)	Strategy			450,000								450,000
Civic Park - Carpark upgrade	Level of Service				250,000							250,000
Vineyard Gateway (9) Precinct signs.	Strategy				165,000							165,000
Total Unfunded				**650,000**	**415,000**							**1,065,000**

Appendix D: 10 Year Financial Plan (2021 $,000)

Item	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Average
Income											
General fund SRV 2016/17 (9.75%)	(50)	(162)	0	(167)	(290)	(341)	(333)	0	0	(386)	(173)
FAG	(174)	(186)	(56)	(281)	0	(66)	0	(413)	(544)	(221)	(194)
TfNSW-Safer LG Roads (Safer Roads - Route Safety Reviews)	(133)	0	0	0	0	0	0	0	0	0	(13)
POSSIBLE FUTURE GRANTS (R4R)	0	0	0	(750)	(2,800)	0	0	0	0	0	(355)
Block Grant	(152)	(155)	(158)	(161)	(164)	(167)	(170)	(173)	(176)	(179)	(166)
Operational Income	(941)	(322)	(328)	(335)	(342)	(349)	(357)	(414)	(372)	(380)	(414)
Total Income	**(1,449)**	**(826)**	**(543)**	**(1,694)**	**(3,596)**	**(924)**	**(860)**	**(1,000)**	**(1,092)**	**(1,166)**	(1,315)
Operations											
Footpaths & Cycleways	10	11	11	11	11	12	12	12	12	12	11
Traffic Facilities	20	20	20	21	21	22	22	23	23	23	22
Parking Areas	12	13	13	13	13	14	14	14	14	15	14
Safety Improvements	45	46	47	48	49	50	51	52	53	54	49
Street Lighting	2	2	2	2	2	2	2	2	2	2	2
CBD Operations	120	122	125	127	130	132	135	138	140	143	131
Total Operations	**209**	**213**	**217**	**221**	**226**	**230**	**235**	**240**	**245**	**249**	229
Maintenance											
Footpaths & Cycleways	24	25	25	26	26	27	27	28	29	29	27
Traffic Facilities	46	47	48	49	50	51	52	53	54	55	50
Parking Areas	29	29	30	31	31	32	32	33	34	34	32
Safety Improvements	105	107	109	111	114	116	118	121	123	125	115
Street Lighting	4	4	4	4	4	4	4	4	4	4	4
CBD Operations	51	52	53	54	56	57	58	59	60	61	56
Total Maintenance	**259**	**264**	**269**	**275**	**280**	**286**	**291**	**297**	**303**	**309**	283
Renewals											
Carpark	80	0	0	0	0	0	0	0	0	0	8
Total Renewal	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	8
Upgrade / Expansion											
Carparks - upgrades	0	0	0	0	45	185	0	50	250	0	53
Footpaths - new	0	85	56	77	76	58	63	95	55	28	59
Shared paths (cycleways) - new	769	174	0	1,121	2,969	164	270	318	239	579	660
Traffic Facilities - new	133	90	0	0	0	0	0	0	0	0	22
Total Upgrade / Expansion	**902**	**349**	**56**	**1,198**	**3,090**	**407**	**333**	**463**	**544**	**607**	795
Total Expenditure	**1,449**	**826**	**543**	**1,694**	**3,596**	**924**	**860**	**1,000**	**1,092**	**1,166**	**1,315**