



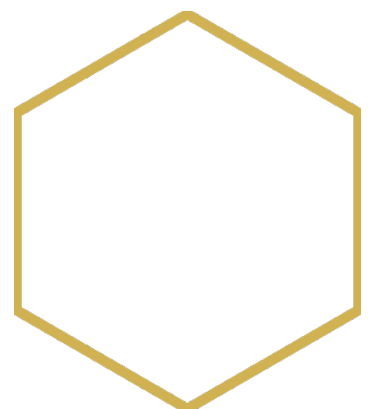
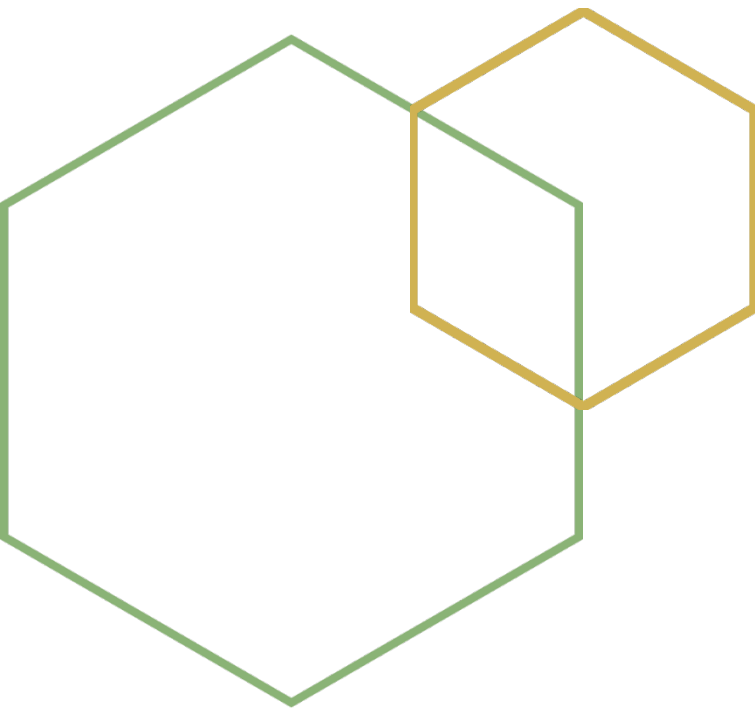
District Council of
**ORROROO
CARRIETON**



Asset Management Plan

2024-2033

The Asset Management Plan sets out Council's proposed schedule of maintenance, asset renewal and replacement for the coming 10 year term of the Strategic and Community Plan.



Adopted 24 May 2023

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Executive Summary

This Asset Management Plan (AMP) has been prepared to ensure that the delivery of services from infrastructure assets is provided in a financial sustainable manner. It also aims to achieve a balance of short and long term planned needs of the community, respond to community priorities and to address any infrastructure backlog within the limit of the available resources.

The AMP will support Council to achieve the goals of and deliver the activities in the Strategic and Community Plan 2020-2030.

Vision:

We are a proud community and our vibrancy makes us resilient. Our residents, businesses and visitors prosper from our beautiful landscape, healthy environment and well serviced regional centre.

The AMP describes the strategy to guide the provision for capital works for the renewal/replacement and upgrade of assets and links to Long Term Financial Plan (LTFP). It will be reviewed and updated on an annual basis and an extensive revision completed at least every 4 years. Draft updates are open for a period of community consultation prior to being considered and adopted by Council.

This AMP covers the following asset groups and classes:

- Roads
- Buildings & Other Structures
- Plant & Equipment
- Community Wastewater Management System (CWMS)
- Other Assets

The AMP considers the level of demand for the service provided by the various assets, the expected life of the asset and timing of renewal or replacement needs of current assets, the likely future demand changes and the need for new assets or upgrade of current assets, the value of the assets and the estimated forecast future cost of maintaining all assets at the planned service levels.

Asset values

The current replacement costs of all the asset groups as at 30 June 2022 is:

• Roads	\$ 34.4M
• Buildings & Structures	\$ 10.6M
• Plant & Equipment	\$ 3.4M
• CWMS	\$ 2.0M
• Other Assets	\$ 0.7M
• Land	\$ 1.4M
Total Current Replacement Costs	\$ 52.5M

Annual Depreciation

The cost of purchasing or creating assets is reflected in the operating expenditure using an annual allocation of depreciation expense to reflect the cost of use or consumption of the service provided by an asset. Depreciation is one of the largest expense items in the Statement of Comprehensive Income being just over \$1.2M in 2021/22 and represented 35% of total operating expenditure.

Whole of life costs

The lifecycle costs of an asset include all costs needed to sustain the service level over the period of its useful life. They include operating and maintenance costs and also the depreciation as a measure of the consumption of an asset. Lifecycle costs can then be compared to the actual expenditure incurred to monitor the sustainability of the service.

The lifecycle costs are considered in the assessment of capital works, particularly where there is new/upgrade of the service provided by an asset. This information is being compiled and will be included in the next detailed review of the AMP.

Forecast Capital Works Program for 2024-2033

The total planned capital works for the next ten years is estimated to be \$10.5 million. This includes known new/upgrade works of \$0.6 million.

• Renewal and Replacement of Assets	\$9.9M
• New and Upgrade of Assets	\$0.6M
TOTAL	\$10.5 M

Forecast Capital Expenditure on the REPLACEMENT/RENEWAL for the next 10 Years 2024-2033

• Roads	\$ 6.3M
• Buildings & Other Structures	\$ 0.1M
• Plant & Equipment	\$ 3.0M
• Other Assets	\$ 0.5M
10 Year cost of replacement or renewal of existing assets	\$ 9.9M

Forecast Capital Expenditure on NEW/UPGRADE for the next 10 years 2024-2033.

• Roads	\$ 0.2M
• Buildings & Other Structures	\$ 0.2M
• CWMS	\$ 0.2M
10 Year cost of new or upgrade of assets	\$0.6M

The following table shows the total planned capital works for each asset group for renewal/replacement and new/upgrade of assets for the next ten year period 2024-2033.

Forecast Capital Expenditure by Asset Group 2024 to 2033

Renewal / Replacement Capital Expenditure	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	TOTAL
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Roads	1,178	296	1,060	360	789	365	825	365	717	365	6,309
Buildings & Other Structures	128	-	-	-	-	-	-	-	-	-	128
Plant & Equipment	328	140	268	518	333	180	653	120	343	140	3,023
CWMS	-	-	-	-	-	-	-	-	-	-	-
Other Assets	46	47	47	48	48	49	50	50	51	61	497
Total	1,680	483	1,375	926	1,170	594	1,528	535	1,111	566	9,968

New / Upgrade Capital Expenditure	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	TOTAL
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Roads	168	-	-	-	-	-	-	-	-	-	168
Buildings & Other Structures	200	-	-	-	-	-	-	-	-	-	200
CWMS	200	-	-	-	-	-	20	20	20	-	260
Other Assets	-	-	-	-	-	-	-	-	-	-	-
Total	568	-	-	-	-	-	20	20	20	-	628

The above forecast expenditure has been included in and is fully funded in the Long Term Financial Plan.

The amounts used in this Asset Management Plan is based on current real dollar values for all future years to facilitate comparisons between years.

Introduction

It is good practice to develop and maintain an Asset Management Plan (AMP) which sets out Council's approach to the management, replacement and development of infrastructure and major assets for a future period of 10 years.

This AMP forms part of Council's strategic management plans, which also includes:

- ✓ District Council of Orroroo Carrieton Strategic & Community Plan 2020-2030
- ✓ District Council of Orroroo Carrieton Long Term Financial Plan 2024-2033
- ✓ District Council of Orroroo Carrieton Annual Business Plan & Annual Budget 2022/23

Under section 122 of the Local Government Act 1999 Council is required to prepare and review their AMP and make it available for public consultation. Feedback from the consultation is considered by Council prior to the adoption of the AMP. The AMP links to the Long term Financial Management Plan to ensure sustainable future planning for asset management.

The Purpose of Asset Management

Council exists to provide services to its community. Some of these services are provided by assets such as buildings, roads, machinery and equipment. Council has acquired assets by 'purchase', by contract, construction by council employees and by donation of assets constructed by developers and others.

The main goal in managing assets is to deliver the approved level of service in the most cost effective manner for present and future consumers.

Asset management planning is a complex and comprehensive process to ensure that the delivery of services from all assets, is delivered in a financially sustainable manner.

The key elements of infrastructure asset management are:

- ✓ Taking a life cycle approach,
- ✓ Developing cost-effective management strategies for the long term,
- ✓ Providing a defined level of service and monitoring performance,
- ✓ Managing risks associated with asset condition, maintenance and failures,
- ✓ Sustainable use of physical resources,
- ✓ Continuous improvement in asset management practices.

What is in the AMP?

This AMP details information about infrastructure assets including the values for each asset class and the works required to provide and maintain assets at a planned level of service. The AMP defines the services to be provided, how the services are provided and what funds are required to provide the services in the short and longer term.

This supports Council in a proactive approach to the management of assets (and services provided from assets), compliance with regulatory requirements and to forecast the amount of funding needed to provide the approved levels of service.

This AMP covers the following asset groups and classes:

- Roads – safe and accessible road network
 - Unsealed Roads
 - Sealed Roads
 - Footpaths
 - Kerbing and Guttering

- Buildings & Other Structures – various structures suitable for purpose
 - Buildings
 - Site Improvements
 - Structures
 - Water supply – provision of non-potable water to the Carrieton township
- Plant & Equipment – enable council employees to undertake activities
 - Major Plant
 - Vehicles
- Community Wastewater Management System (CWMS) – treatment and disposal of wastewater in Orroroo township
- Other Assets - replaced on a cyclic basis as needed.
 - Furniture & Fittings – support service delivery
 - Computer & Office equipment – enable council employees to undertake activities
 - Other Equipment - various for service delivery.

The following assets are not included in this AMP:

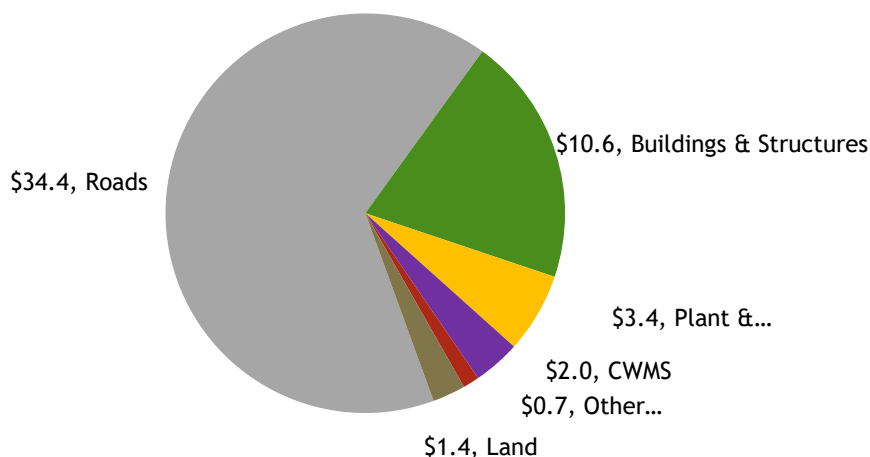
- Land assets of \$1.4M are not subject to management as an asset and not depreciated.

Asset Financial Values

Assets are valued based on Australian Accounting Standards AASB13 Fair Value and AASB16 Property, Plant and Equipment. Financial asset data has two uses, it is used to record the values of Infrastructure, Property, Plant & Equipment (IPPE) in the Financial Statements, in the Statement of Financial Position (Balance Sheet). It is also used as a basis to recognise an asset and to calculate the Depreciation in the Statement of Comprehensive Income (Operating Statement).

The asset groups of Roads, Buildings & Other Structures and the Community wastewater management system were re-valued at depreciated current replacement cost during the reporting period ended 30 June 2020 by Mr Richard Gayler, Gayler Professional Engineering Pty Ltd. All acquisitions made after the respective dates of valuation are recorded at cost. The major asset groups are independently revalued periodically, at least every five years.

Current fair value of Assets by Group as at 30 June 2022 (\$million)



Depreciation

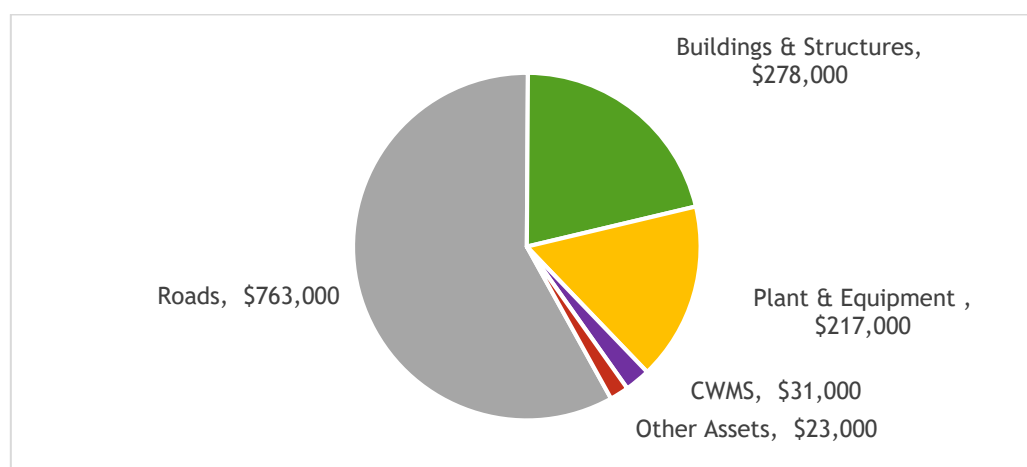
The annual Depreciation is an allocation of the annual service consumption of all assets. The calculation is derived from the cost of purchase, construction or asset value, apportioned over the estimated years of life for each asset class. It is one of the largest expense items in the Statement of Comprehensive Income. In 2021/22 depreciation was 37% of total operating expenditure.

Capital Works expenditure, both renewal and upgrades will increase the amount of annual depreciation and also any future ongoing maintenance expenditure so is a significant consideration in long term financial planning. There is an impact of capital works and the future operations maintenance on the Council long term financial sustainability.

Annual Depreciation for 2021/22:

Asset Group	Depreciation (\$)
Roads	763,000
Buildings & Other Structures	278,000
Plant & Equipment	217,000
CWMS	31,000
Other Assets	23,000
TOTAL	1,312,000

Annual Depreciation by Asset Group for 2021/22



Capitalisation thresholds:

The second use for financial asset data is to determine the capitalisation thresholds for the recognition of an asset, replacement cost and in which year it is likely to need to be replaced. All assets are initially recognised at cost. For assets acquired at no cost or for a nominal consideration, cost is determined as fair value at the date of acquisition. The cost of assets constructed by Council includes all the cost of materials used in construction, direct labour and a portion of variable and fixed overhead. Assets with an economic life in excess of one year are capitalised where the cost exceeds a materiality threshold as determined by Council.

The capitalisation thresholds are as follows:

Roads:

Road construction & reconstruction	\$10,000
Footpaths, Kerbing & Guttering	\$2,000
Drains & Culverts	\$5,000
Buildings	\$10,000
Plant & Equipment	\$1,000
CWMS	\$5,000
Other Assets	\$2,000

No capitalisation threshold is applied to the acquisition of land or interests in land.

Up to date asset data is essential, to underpin planning and to update the asset management renewal programs in a timely basis and at least annually as part of the legislatively required review of the Long Term Financial Plan.

AMP Framework

Key elements of the AMP are:

- ✓ Levels of service
- ✓ Future demand – how this will impact on future service delivery and how this is to be met.
- ✓ Life cycle management – how existing and future assets will be managed.
- ✓ Financial summary – what funds are required to provide the required services.
- ✓ Monitoring – how the AMP will be monitored to ensure it is meeting objectives.
- ✓ Continuous improvement of asset management.

Levels of Service

In the AMP, service levels are defined in two terms:

✓ **Community Levels of Service**

These relate to the service outcomes that the community seeks in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance.

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

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

✓ **Technical Levels of Service**

Supporting the community service levels are also technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes and with consideration of risk identification and the potential impact of risk mitigation.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc.;

- Maintenance – the activities necessary to retain an asset as near as practicable to its original condition and maximise useful life cycles(e.g. road patching, unsealed road grading, building and structure repairs);
- 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 an higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library);

Future Demand Forecast

Factors affecting future service level demands include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc. The view taken in the preparation of this AMP is that it is expected that there will be only minimal change from the current population levels.

Life Cycle Maintenance of Assets

The lifecycle costs of an asset include all costs needed to sustain the service level over the period of its useful life. They include operating and maintenance costs and also the depreciation as a measure of the consumption of an asset. Lifecycle costs can then be compared to the actual expenditure incurred to monitor the sustainability of the service.

Lifecycle forecast expenditure is compared to lifecycle actual expenditure based on data that is an average over a three year period. The lifecycle costs are considered in the assessment of capital works, particularly where there is new/upgrade of the service provided by an asset. While the initial capital cost is often supported with external funding grants, the ongoing maintenance is a cost of the council. This information is being complied and will be included in the next detailed review of the AMP.

Consumption of asset service

The amount of depreciation for an asset can be used to indicate how much of the asset service value has been used or consumed. This measure is then compared to the periodic condition assessment to determine if the underlying assessment of useful life is appropriate for the asset and the conditions of the service provision.

Most of the assets currently in use are in a reasonable condition. Roads are the priority asset group and a commitment to maintenance and replacement/renewal should be continued in each annual budget. Buildings & Other Structures will be reviewed prior to the preparation of the next AMP. Plant & Equipment was reviewed in 2023 and several items have been identified as surplus to needs so will be disposed of, which will improve the consumption measure. CWMS and Other assets are in good condition. The Consumption measure is shown in the table below:

Asset group	Fair Value (\$M)	Accumulated depreciation (\$M)	Consumed as at 30 June 2022 (%)
Roads	34.4	11.7	34
Buildings & Other Structures	10.6	4.6	43
Plant & Equipment	3.4	2.1	62
CWMS	2.0	0.1	5
Other assets	0.7	0.2	29

Risk management

It is essential that any risk associated with an asset that may impact on the service level is identified and assessed to ensure that there is a treatment plan in place, particularly for risks that are deemed to be above the adopted level of risk appetite. The periodic inspection of assets will identify any critical risks, the treatment and the indicative timing of works needed, so expenditure needed can be planned.

Operational Expenditure

Asset maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again. Maintenance includes reactive, planned and specific maintenance work activities.

Reactive maintenance refers to unplanned repair work carried out in response to service requests, external influences such as weather events and management directions to bring an asset to a minimal serviceable level until further planned maintenance.

Planned maintenance activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and subsequent reporting of what was done to develop a maintenance history and improve maintenance and service delivery performance.

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold but may require a specific budget allocation.

Capital Expenditure

Renewal / Replacement

Renewal or replacement capital expenditure is major work which restores, rehabilitates, replaces or renews an existing asset to its original service potential without any increase the design capacity of an asset or component.

Examples of asset renewal include;

- ✓ Re-sheeting an unsealed road to the same specified condition and width.
- ✓ Resealing the pavement surface of a sealed road.
- ✓ Replacing an existing footpath to the same standard (concrete with concrete).
- ✓ Replacement of an existing building to the same standard.

Renewal will be undertaken where practical and where it stands to deliver the best value. This approach aims to restore the service potential or future economic benefits of the asset by renewing the assets with lower cost methods to maximise the asset lifecycle at a cost much less than replacement or reconstruction costs.

New / Upgrade

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

Examples of New/Upgrade works include;

- ✓ A new waste water system which is new service.
- ✓ Sealing the pavement surface of a currently unsealed road.
- ✓ A new or significant upgrade of a building or structure
- ✓ Replacing a gravel path with a concrete or asphalt surface.

New assets and upgrade/expansion of existing assets are identified from various sources such as proposals identified by strategic plans or partnerships with other organisations, requests initiated by councillors or the community which are then assessed and prioritised by Council.

It is possible for capital works expenditure to be a combination of renewal and upgrade. For example, the replacement of a road that was initially was a 6 metre wide sheeted surface with an 8 metre width sheeted surface can be considered part replacement and part upgrade.

If Council is not able to fund renewal of its existing assets in accordance with the target asset renewal ratio, increased assets should not be created through 'upgrade or new' unless identified as essential. Building new assets effectively creates new and ongoing obligations as most assets don't generate revenue (e.g. roads) or cannot be sold and will need to be maintained and eventually replaced.

Asset Renewal Funding Ratio

This measure is used to indicate the sustainability of the condition of an asset. It is the comparison of the planned asset renewals in this AMP with the actual capital renewal expenditure in each financial year. The target range for the measure is set out in the LTFP where Capital expenditure on renewal/replacement of assets is between 91 – 110%.

The planned capital expenditure in this AMP, both renewal and new/upgrade are fully funded in the long term financial plan, reflected by a measure of 100% which is then used as a base for the development of the annual budget.

Monitoring the AMP

Performance of the AMP will be reviewed and updated, if needed as part of the preparation of the annual budget and review of the LTFP. The AMP will be subject to a significant review at once every 4 years and as needed.

This is to update the AMP as part of the implementation of continuous improvement that aims to increase efficiencies in the approach to asset management. These include new developments in materials and technology to increase the durability of asset and to reduce ongoing lifecycle costs.

This is also important as some of the recent grant funded programs saw the bringing forward of capital works. Combined with the flood damage remedial works has meant the deferral of some planned works which now need to be prioritised.

Roads (Transportation)

Transportation assets include sealed roads, unsealed roads, footpaths, kerb & guttering, lighting and drainage assets. These assets have a total current replacement cost of \$34.5M.

The following process was undertaken in 2021-22 to ensure the accuracy of Councils asset data in relation to its sealed and unsealed road networks:

1. A comprehensive review of road classifications was undertaken in consultation with the management with support of an external technical consultant.
2. The existing asset data was updated to reflect the outcome of the review. There were some changes in the classification of some segments of the road network, changes to the standard unit rates and changes to the average total useful life assumption for each category of road.
3. A desk top revaluation was undertaken that resulted in an increase in the current replacement cost of the road network as well as the annual depreciation allocation. These increases reflect the actual costs incurred in renewing these assets as reported in Councils works costing ledger over the previous two years.
4. The existing road classification hierarchy as contained in the asset register was colour coded to a poster sized rack map of Councils road network for easier and quicker identification of specific roads.

Road Hierarchy – Road Prioritisation

Council held multiple planning sessions to determine the capital works road priorities for the community. This was an important activity to undertake as Council has limited resources and accordingly need to spend the money on the roads that will provide the widest community benefit.

In order to improve the road asset register the following road surface types have been developed:

- Township & Rural Seal (High Use & Standard Use)
- Township Sheeted
- Rural Class B Sheeted
- Rural Class C1 Sheeted
- Rural Class C2 Sheeted
- Rural Class C3 Sheeted
- Road Class C4 Sheeted
- Rural Class D Natural Formation

Appendix A - contains a report providing definitions of each road surface type.

Appendix B - contains the hierarchy of sheeted roads for the whole Council area.

Unsealed Roads Service Standards – Construction / Resheeting

Service levels are an important mechanism available to Council to influence its long term financial sustainability. There is a connection with capital outlays; the higher the service level the greater the cost per kilometre to resheet or construct. Accordingly, by amending the specifications or the number of kilometres of road in a particular category/class, Council has the ability to increase or decrease future capital expenditure levels upwards or downwards.

Service levels also impact on depreciation calculations. In general, the lower the category/class rating then the longer is the total useful life of the section of road and accordingly the lower the depreciation charge. Further to this the lower the category/class the lower is the cost of construction.

Council have agreed to use the following specifications when constructing or resheeting unsealed roads. These are to be the applied service levels. The higher the category of road then the higher the service level applied.

Unsealed Road Asset Data

Size of sheeted road network:

Rural Class B 57 kms / Total Useful Life 20 years
Rural Class C1 31 kms / Total Useful Life 17 years
Rural Class C2 63.5 kms / Total Useful Life 19 years
Rural Class C3 201 kms / Total Useful Life 23 years
Rural Class C4 177.5 kms / Total Useful Life 25 years
Total Sheeted network – 530 kms

Required average number of resheet kilometres per annum calculation:

Rural Class B 57 kms divide by TUL of 20 = 2.8 kms
Rural Class C1 31 kms divide by TUL of 17 = 1.8 kms
Rural Class C2 63.5 kms divide by TUL of 19 = 3.4 kms
Rural Class C3 201 kms divide by TUL of 23 = 8.7 kms
Rural Class C4 177.5 kms divide by TUL of 25 = 7.1 kms
Total 23.8 kms p.a. included in AMP and funded in LTFFP

Size of formed unsheeted road network

Rural Class D 282 kms
Graded as resources allow.

The resheeting program is reviewed on an annual basis. This ensures that roads that have deteriorated at a faster rate than expected are prioritised in accordance with the current condition of the network. Such an approach is particularly relevant should a season result in increased traffic on a particular road, this may cause the road to decline faster than predicted. Similar damage can also be caused via localised weather events.

Roads assessed in the worst condition are scheduled for replacement ahead of roads in better condition.

Patrol Grading Program - Unsealed Roads

The target frequency of grading varies from category to category as follows:

Rural Class B roads are generally graded 2-3 times a year
Rural Class C1 roads are generally graded twice a year
Rural Class C2 roads are generally graded twice a year
Rural Class C3 roads are generally graded once a year

Rural Class C4 roads are generally graded once a year

Rural Class D roads are graded as resources allow.

Some roads may be graded more frequently than this whilst other roads might have fewer than this based on the actual condition at the time as well as seasonal factors. The cost of the grading program is built into the operating budget and may vary from year to year due to seasonal influence as well as other competing demands.

The unsheeted road network is also monitored for sectional failure with appropriate remedial maintenance being undertaken on an as needs basis. E.g. 150-200m of a road that is subject to flooding might be rectified sooner than the rest of that segment of the road. As large impediments emerge these may be repaired as resources permit. The cost of this type of road maintenance is also built into the operating budget and also can vary from year to year.

Upgrading of a Class D road to a sheeted standard will only be considered during annual budget cycles and will be determined by an available budget provision, this includes changes in surrounding property usage. There are currently no provisions in the Long Term Financial Plans for upgrades to unsealed roads.

Sealed Roads

Sealed Roads Service Standards – Construction / Resealing

Service levels are an important mechanism available to Council to influence its long term financial sustainability. There is a connection with capital outlays; the higher the service level the greater the cost per kilometre to reseal or construct. Accordingly, by amending the specifications or the number of kilometres of road in a particular category/class, Council has the ability to increase or decrease future capital expenditure levels upwards or downwards.

Service levels also impact on depreciation calculations. In general, the lower the category/class rating then the lower the depreciation charge. Further to this the lower the category/class the lower is the cost of construction.

Council will use the following specifications when constructing or resealing sealed roads. These are known as service levels. The higher the category of road then the higher the service level applied.

Hierarchy Categories of roads - Sealed Roads

Council has categorised its sealed road network into two categories based on location as well as usage patterns:

- Rural Sealed – roads leading into and out of townships
- Township Sealed – all sealed township roads

Construction Standards – Sealed Roads

Initial construction of sealed road from ‘unsealed sheeted road’

14/7mm (or equivalent) 2 coat seal with C170 Bitumen at a cost of \$42.50 per sqm including aggregate and cartage (including minimum 250mm depth PM2/30 base preparation).

Reseals (renewal)

14/7mm double coat reseal with C170 Bitumen at a cost of \$12.50 per sqm including aggregate and cartage.

7mm single coat reseal with C170 Bitumen at a cost of \$10.30 per sqm including aggregate and cartage.

Sealed Road Asset Data

Size of sealed road network:

Rural Sealed 40kms / Total Useful Life 20 years (sealed surface)
 Township Sealed 16kms / Total Useful Life 25 years (sealed surface)

Required average number of reseal kilometres per annum calculation:

Rural Sealed 40kms divide by TUL of 20 = 2 kms
 Township Sealed 16kms divide by TUL of 30 = .6 kms

Life Cycle Maintenance of Assets

The lifecycle costs of an asset include all costs needed to sustain the service level over the period of its useful life.

The critical works that will be addressed are surface defects and hazards arising use of the asset of a weather event such as damage caused by a storm.

Demand factors

Factors considered in future transportation asset planning include:

- Population growth;
- Economic development – agriculture and tourism needs;
- Community expectations
- Environment – soil movement and storm events;
- Financial affordability.

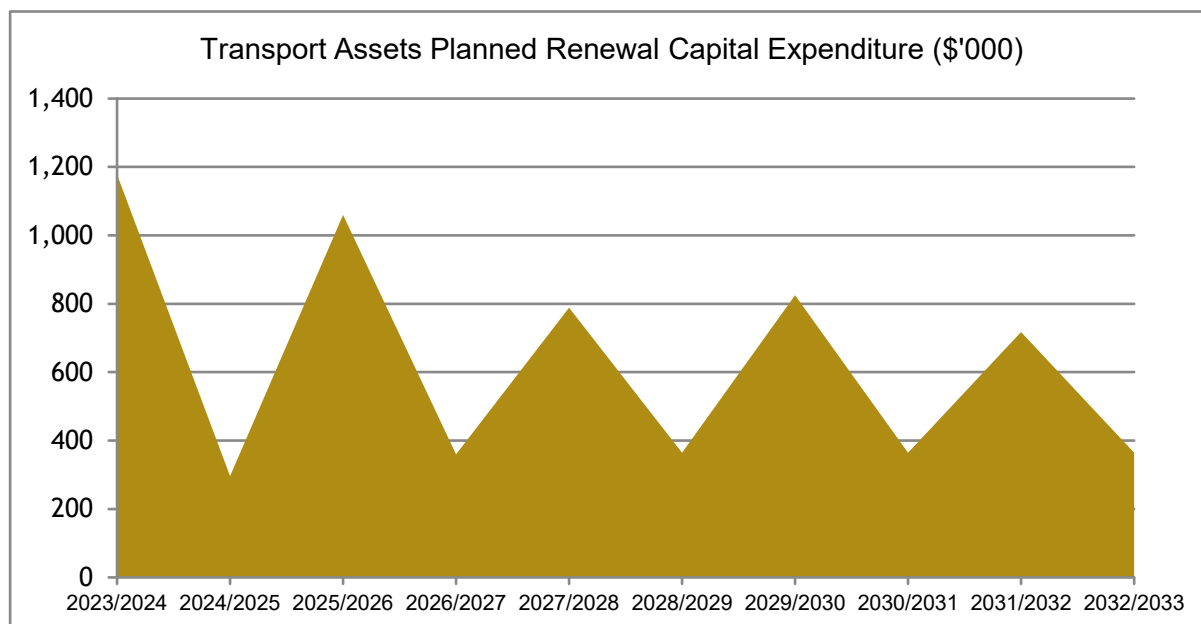
Forecast Capital Renewal Expenditure on Road Assets for the next 10 years

The 10 year capital works program is based on an independent assessment of the current condition of the road network and road works priorities that have been identified as part of this assessment and by Council. Each year, as part of the preparation of the annual business plan, the roads that are listed as priority are reviewed to ensure that the assessment is accurate. Accordingly some roads may be added to the annual program and others removed dependent upon the condition of these roads at that time.

The following table summarises the annual forecast Renewal costs by transportation asset sub class. The allocation estimates are based on Council's current asset data. These will be reviewed on an annual basis as part of the Annual Business Planning process.

Financial Year	2023/ 24 \$'000	2024/ 25 \$'000	2025/ 26 \$'000	2026/ 27 \$'000	2027/ 28 \$'000	2028/ 29 \$'000	2029/ 30 \$'000	2030/ 31 \$'000	2031/ 32 \$'000	2032/ 33 \$'000
Unsealed Road Resheeting	262	296	350	360	365	365	365	365	365	365
Sealing of Unsealed Roads (50%)	168									
Sealed Road Resealing	624		310		424		413		352	
Sealed Road Shoulders			400							
Footpath, Kerb & Guttering	124						47			
Total	1,178	296	1,060	360	789	365	825	365	717	365

The following graph shows the forecast renewal expenditure for the next 10 years based on the current asset data.



New / Upgraded Transportation Assets

Orroroo Heavy Vehicle Bypass (Road Sealing)

Construction of the Orroroo heavy vehicle by-pass route was completed in December 2022. The total value of this project was estimated at \$2.469 million and the final cost was \$2.856. Approximately 1/3rd represents the cost of sealing the road and is considered to be upgrade. The remaining 2/3rd is considered to be renewal as the existing road will be replaced. Council will receive approximately \$1.9M of grant funding to contribute towards the cost of the work, with Council to fund the remaining \$956k.

Orroroo – sealing of unsealed town roads

Sealing of roads that are currently unsealed within the Orroroo township area was commenced in 2023 and will be completed in 2024 for an estimated cost of \$335,000. An estimated portion of half of this amount will be allocated to new/upgrade capital works.

Further New or Upgraded road assets will not be considered unless Council has fully funded all renewal funding requirements and the 'Upgrade or New' assets are fully or partially grant funded.

Buildings & Other Structures

Buildings include Council owned buildings such as the Depot, Town Hall, Council office, Grandstand, RSL, Addison Court residential units. This class of asset also includes all site improvements and structures including the Swimming Pools, Carrieton Water supply and public amenities. This asset group has a current replacement cost of \$10.0M.

It is planned to undertake a detailed review of the assets in the Buildings & Other Structures group during 2024 to prepare a renewal plan to ensure that all buildings and other structures are fit for purpose, meet community needs, are safe and accessible, meet relevant legislative standards and to ensure that an appropriate level of funds is allocated for operational maintenance to that all the assets continue to deliver the services without critical defects.

The critical risks that have been identified are shown in the following table:

Risk description	Mitigation actions
Ageing structural failure	Building condition inspections schedule.
Natural disaster	Building condition inspections.
Electrical causing fire	Testing and tagging of all appliances, RCD testing schedule.
Asbestos	Asbestos Register is maintained.

Building Service Level

The aim of the Council Building Assessment Program is to ensure that Council's buildings and assets are maintained to a satisfactory standard that provides long-term infrastructure for the business needs of the Council and the community. The renewal expenditure aims to ensure that the services currently being provided by these buildings to the various community groups and Council employees that use them will be maintained at current levels.

The Council operating budget also contains an allocation of funding to cater for the ongoing maintenance requirements of these buildings.

Structures – Orroroo Waste Transfer Station

The Orroroo Waste Transfer Station is in need of significant capital works to meet expected service standards and to meet the requirements of the licence conditions. The Council has committed to this project to be completed in 2023-24 for a total cost of \$300,000 which will be supported by external funds of \$150,000. A portion of approximately 60 % of the capital works will be allocated to new/upgrade capital works.

Forecast Capital Renewal Expenditure on Buildings, Site Improvement & Structures for the next 10 years

Financial Year	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2022/23
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Orroroo Council Office	25									
Orroroo RSL	3									
Orroroo Waste Transfer Station	100									
Total	128									

Forecast Capital New/Upgrade Expenditure on Buildings, Site Improvement & Structures for the next 10 years

Financial Year	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2022/23
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Orroroo Waste Transfer Station	200									
Total	200									

Carrieton Water Supply

Overview

The township of Carrieton is a regional town located approximately 310km north of Adelaide. The current population of the Carrieton area is approximately 51 people (2016 Census). Carrieton has a small range of services that include a general store, swimming pool, caravan park and a volunteer Country Fire Service (CFS).

The Carrieton Water Supply was created by the former District Council of Carrieton following requests from the community to provide water for use in domestic toilets and gardens. The town was solely reliant on rainwater prior to the installation of the Supply in 1973. There are no meters for individual properties – residents are permitted to use as much water as they need with connected properties paying only an annual service charge.

The Carrieton Water Supply was built during the 1970's where licences for water retailing and supply were not required. Council is committed to the safe and efficient operation of the system in compliance and all statutory legislation and reports annually to the Essential Services Commission of South Australia on matters relating to the provision of the water supply.

The Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP) details the management framework, key procedures and associated performance indicators for the safety and technical management of the Carrieton Water Supply (non-potable) including operation, maintenance, monitoring and alteration. The SRMTMP has been developed to meet the requirements of the Water Industry Act 2012 and associated Water Industry Regulations 2012 as required by the Technical Regulator.

The Carrieton Water Supply provides a gravity fed water service to 25 privately owned properties connected in Carrieton plus public building connections (eg Pool, Works Depot). The water is pumped from a bore located at the Carrieton Recreation Grounds to a header tank located at the highest point in the town adjacent to the Catholic Church. The water is then gravity fed to the properties for residents to use. The water is non-potable and has not been treated - it is intended to supply resident's toilets and gardens with water.

Water supply assets

Infrastructure of the Carrieton Water Supply (non-potable) broadly consists of:

1. Bores (x 2) and pumps (2x submersible & 1 x transfer pump)
2. Tank (poly 5,000 gallon)
3. Header Tank (26,000 Gallon)
4. Poly Pipework to header tank and to connected properties.

The Scheme is currently at capacity with 24 paid connections plus public building connections (eg Town Hall & Institute, Pool, Works Depot).

Table 1 Carrieton Water Supply

Asset	Description	Details
Bore		2 bores
Submersible pump in bore		2 pumps
Transfer Pump	Grundfos Multi-stage	4,500L per hour
Header Tank (at top of town)	Aquamate Tank	35,500 Gallon Galvanised Aquamate Maxi Tank (Installed February 2018)
Pipework	From Bore to header tank	Mixture of 50mm PVC or 2 inch Poly Pipe
Pipework	From Header Tank to properties	Mixture of 1 ¼ inch, 1 ½ inch, 32mm and 25mm PVC & Poly

As the Carrieton Water Supply was built in 1972-1973, it is not known what engineering and technical design (if any) was undertaken at that time. No design plans or records have been found to indicate professional plans.

Life of Plant

The water services are generally provided to meet design standards where these are available. Any external consultants that are engaged to undertake the design of new infrastructure will consider the design life of plant equipment, based on system requirements, equipment specifics and applications. The service life of new infrastructure is approved with consideration for the deterioration of equipment during typical operation and mitigating effects of maintenance, replacement and redundancy.

Operating conditions such as pressure, fluid velocity, temperature and service factor are considered in design and any excursions from the design envelope addressed to review the remaining life of the equipment. Deterioration caused by corrosion or other mechanisms is monitored according to the selected design codes, to confirm the effectiveness of mitigating measures or to respecify remaining life for given service conditions.

Risk Assessment

Identified risks and hazards are assessed using criteria, which are standardised throughout District Council of Orroroo Carrieton, for the likelihood of the event occurring and the consequence if it does occur. In particular, consequences are not just assessed as the physical or employees impact (e.g. number of injuries or fatalities) but also against other criteria such as financial impact, environmental impacts and reputational impacts.

Assessment of financial impact considers cost of the hazardous event including physical repairs, lost production, damages from third parties, legal claims and the like. Various levels of cost are determined and ranked as Minor, Moderate, Major and Extreme, for use in the risk ranking process.

Environmental impacts considered range from those ranked as trivial, which have minor or no effects and are rectified rapidly, through to those with increasing severity.

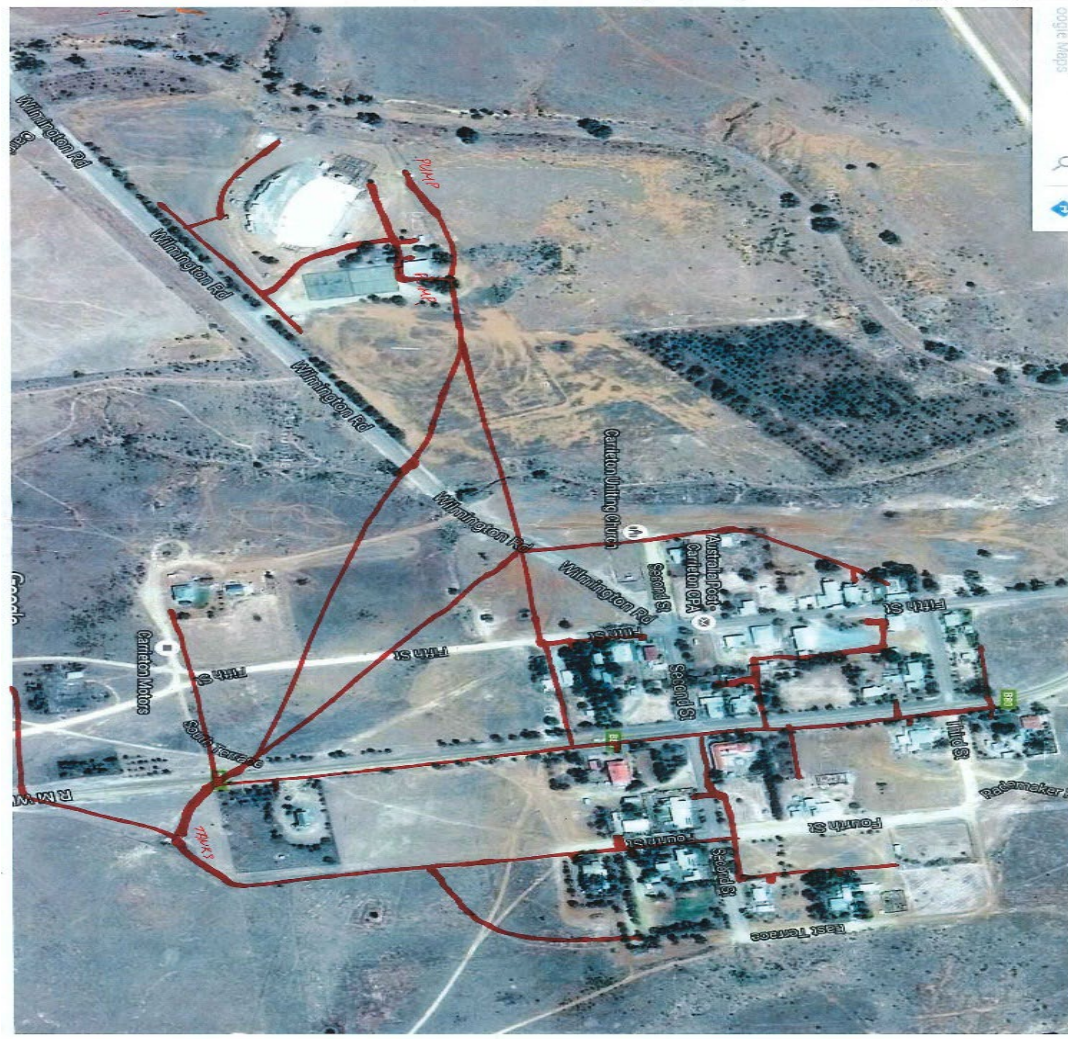
Minor risks are those where the effect is localised and of short term duration with manageable consequences whilst extreme risks represent those where the effects are widespread with possible major off-site and long term severe environmental effects.

Table Hazard Identification & Risk Assessment of Carrieton Water Supply Pre-Preventative Measures

Hazardous Event	Potential Exposure Event	Risk	Preventative Measures	Res. Risk
Human Health				
MICROBIAL Human exposure to non-potable water, ingestion of pathogens	Enteric illness.	Extreme	<ul style="list-style-type: none"> Equipment operation monitoring and alarms 	Medium
Environmental Performance				
Soil contamination	Increased salinity, elevated nutrient, loads increase in soil pH.	Medium	<ul style="list-style-type: none"> Monitor soil Monitor irrigation sites health 	Low
Equipment failure (tanks, pumps, pipelines)	Residents without water for gardens and toilets for days	High	<ul style="list-style-type: none"> Equipment operation monitoring and maintenance Header tank has large capacity so can sustain connections for 3 days (lesser during hot weather). 	Low

For each existing or potential hazard identified mitigation strategies and preventative measures have been developed and implemented to ensure that the residual risk to public health or the environment has been reduced to acceptable levels. For many of the hazards identified, multiple barriers are in place to either further reduce the residual risk, or to ensure that in the event of reduced performance of one barrier, total loss of hazard management does not result.

It is considered that the Carrieton Water Supply is a highly functional, well managed and robust system, and that residual risks to public health and local environments have been minimized as much as practically feasible.



This information has been extracted from the Safety, Reliability, Maintenance and Technical Management Plan (SRMTMP) which was adopted by Council, at the Ordinary Meeting of 28 September 2022.

Plant & Equipment

Plant & Equipment are a significant class of asset and include large pieces of equipment such as graders, trucks, and tractors and also vehicles.

The current replacement cost of this class of assets is \$3.4M in the following classes:

- Vehicles \$ 395,819
- Plant \$ 3,007,307

The annual Depreciation for 2021/22 was \$217,000.

During 2019 a review of Council's plant and machinery was undertaken to determine the needs of the Council. The following approach has been adopted.

Plant	No	Purpose	Comments
VEHICLES			
Vehicle – Administration	1	This vehicle is utilised by the CEO and for general administrative purposes	Retain on replacement schedule.
Tray-top Utility	1	The ute will be used for general purposes	
Dual Cab Utility	1	The ute will be used for general purposes	
Small/Medium Truck	1	Dual cab truck required for associated works and used with Skid Steer	
Tandem Tip Truck	3	Trucks for rubble cartage & water tanks	
Community Bus	1	Used for community travel/transport purposes	
Dual Cab Utility	1	Works Coordinator vehicle	Lease vehicle – not included in AMP
PLANT			
Grader – Construction/Patrol	2	Graders for patrol grading and construction works	Retain on replacement schedule.
Loader	1	Larger loader for loading of trucks and other works, including private works	
Tractor – Slashing	1	Tractor for slashing program	
Turf Mower	1	Used for mowing of the oval	
Skid Steer Loader	1	To have multiple attachments for versatility, including street sweeping and purpose built trailer	
Mobile Generator	1	Included in replacement Program	

Plant to be maintained only	No	Purpose	Comments
Spray Unit Utility	1	To be maintained and not included in replacement program	Not included on replacement schedule
Tri Axle Plant Trailer (Used to transport equipment)	1		
Slasher	1		
Skid Steer Trailer	1		
Rollers	4		

The following table provides the basis to the methodology and approach used for the replacement of plant and equipment under the various groupings.

In relation to funding source for the replacement of plant and machinery items, this decision will be made as part of assessing the financial position of the Council at the time of considering the item replacement.

Plant	No	Replacement Schedule	Replacement schedule KMs/Hrs	Funding
VEHICLES				
General vehicle	1	2 Years	90,000km	<p>The funding approach for the replacement of plant and machinery items is fully funded in the Long Term Financial Plan.</p> <p>Where deemed appropriate, Council considers the acquisition of quality second-hand plant as a cost effective alternative to new plant.</p>
Utilities	1	10 Years or Lease	150,000km	
Medium Dual Cab Truck	1	10 Years	300,000km	
Tandem Tip Truck	3	10 Years	350,000km	
Community Bus	1	10 – 12 Years	250,000km	
PLANT				
Grader – Construction/Patrol	2	10 Years	8,000hr	
Loader	1	10 Years	8,000hr	
Tractor – Slashing	1	10 Years	5,000hr	
Turf Mower	1	7 Years	2,000hr	
Skid Steer Loader	1	15 Years	3,500hr	
Slasher	1	As required		
Rib Roller	1	As required		
Hyster Grid Roller	1	As required		
Broons ECombi Roller	2	As required		
Mobile Generator	1	As required		

Forecast Capital Expenditure on Plant & Equipment for the next 10 years

The following graph and table details the forecast capital expenditure requirements on replacing Council's fleet of plant & equipment and is fully funded in the Long Term Financial Plan.

The spikes observed in the chart below are primarily due to the purchases of major plant items. Where possible, the purchase of major items has been staggered to avoid large spikes and spread major expenditure overtime.

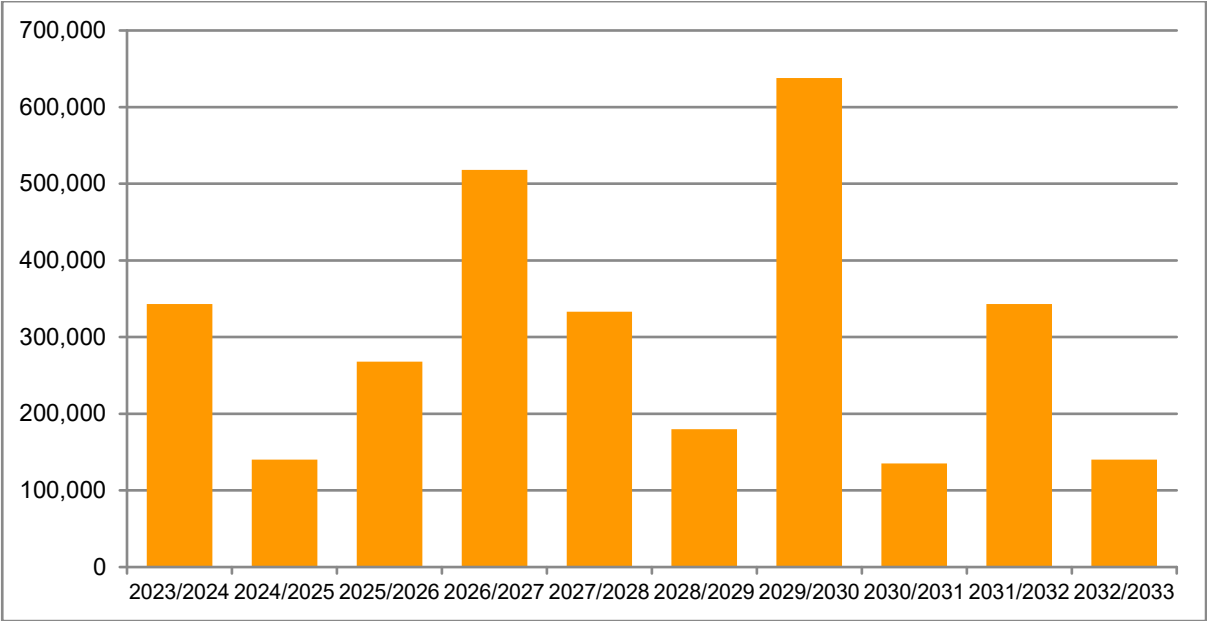
Plant & Equipment Forecast Renewal Capital Expenditure 2024-2033 (\$'000)

Plant & Equipment replacement program – 10 year period

Major Plant	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	TOTAL
Vehicle - General	58,000		58,000		58,000		58,000		58,000		290,000
Utility Multipurpose (2)			100,000				100,000				200,000
Community Bus			110,000								110,000
Tandem Tip Truck Isuzu	270,000										270,000
Tandem Tip Truck (Hino)					275,000						275,000
Water Truck (Hino) **											0
Medium Dual Cab (Isuzu)						180,000					180,000
Grader (1)							480,000				480,000
Grader (1)				480,000							480,000
Loader									285,000		285,000
Skid Steer Loader								120,000			120,000
Tractor (John Deere 6420)		140,000								140,000	280,000
Turf Mower (large)				38,000							38,000
Turf Mower (small)							15,000				15,000
TOTAL	328,000	140,000	268,000	518,000	333,000	180,000	653,000	120,000	343,000	140,000	3,023,000

* Figures presented are purchase value ex GST rounded to the nearest '000, not changeover value (purchase value without respective trade-in values).

** Water Truck replacement due 2033/2034.



Community Wastewater Management System - Orroroo

INTRODUCTION

The Community Wastewater Management System (CWMS) assets are used by Council in the delivery of its “Water Entity” wastewater services. The Orroroo CWMS is a small, “limited customer” scheme which was specifically requested by and/or negotiated with the existing customers. It was designed to cater for major entities such as the school, hospital, aged care homes, meat works, public toilets, caravan park and commercial premises. The scheme qualified for Federal Government grant assistance on the basis of supporting industry and employment.

Council has established the necessary practices, backed up with appropriate resources (personnel and equipment) to own, operate, maintain and replace its Orroroo CWMS in accordance with its statutory and regulatory approvals. This AMP is one component of the suite of documents which underpin that position.

Background

The Council is a Water Industries Entity in South Australia, as defined in the Water Industries Act 2012. More than 50 Councils and Local Authorities in South Australia provide CWMS services. These are therefore considered normal activities to be carried out by a local government entity.

The system is atypical as it was initially installed at the request of, and/or to address major disposal issues for, a limited number of customers. Several major services including health, commercial, industrial, tourism, aged care and educational entities had specific disposal issues which had to be addressed. It is planned that future expansion stages will include connection by the businesses in the Orroroo Main Street.

The scheme currently has no private domestic/residential customers. Council is likely to amend the scheme in future to allow domestic connections, subject to the usual regulatory and licencing prerequisites.

Asset Values

The CWMS initial installation was completed in 2021 and the current replacement cost of the CWMS related assets is \$2.0 M.

The main components of the CWMS are:

- Pump station, controller, housing
- Lagoon earthworks, liner and fencing
- Solar array and pump
- Pipework, rising mains, inspection points
- Property connection pipes, pumps

The annual depreciation amount for 2021/22 was \$30,000.

LEVELS OF SERVICE

The levels of service for wastewater assets are defined by regulation and if those are being met it indicates that the level of service can be regarded as adequate. In this AMP it is assumed that current service standards are adequate to meet the expectations of the community. The CWMS scheme was developed in consultation with its limited number of customers specifically to address their particular needs.

Community Levels of Service

These relate to the service outcomes that the community (and direct customers) want in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance. The Orreroo CWMS currently satisfies all the criteria.

Technical Levels of Service

The technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes. The technical measures also include all statutory compliance (eg, the stipulated performance criteria in both the EPA licences and Department of Health and Wellbeing approvals of schemes, Safety, Reliability, Maintenance and Technical Management Plan and Operations & Maintenance Manual).

FUTURE DEMAND FORECAST

Factors affecting demand include population change, changes in demographic structure, household occupancy, consumer preferences and expectations and also changes in seasonal factors, economic factors, agricultural practices, environmental awareness.

The system has the capacity for approximately 300 connections. There are currently 7 connections for 31 property units which were completed as part of Stage 1. The next stage is planned for 2023/24 for 9 new connections. A further 3 new connections are planned from 2029/30 to 2031/32

Overtime it is expected that further future expansion stages of the CWMS will see new connections added and then both the AMP & LTFP will be updated to reflect any required changes to meet community needs.

Lifecycle Maintenance

All expenditure associated with the CWMS should be recovered from the users of the system. There should not be any inequity or impost on property rates. There is an annual service charge for all customers which is intended to cover all operational expenditure in the medium to long term. This will include the regular desludge/pumpout of connections, tanks and pipe lines that are part of the CWMS. In addition there should be new service connection fees or capital contributions for any expansion. A future consideration should be the approach to charging for vacant properties and where owners who choose not to connect at the time the infrastructure is installed in the street.

Operational Expenditure

Maintenance and operational expenditure is highly dependent on effective and timely preventative maintenance, prices of inputs (chemicals, electricity, consumables) and Regulatory changes (eg, disinfection standards). It can also be variable across seasons and years due to climatic conditions (eg, amount of treated water available for re-use).

As there are no past years records to indicate the necessary levels of Operating and Maintenance Expenditure. For the first few years of planning the forecast expenditure can only be based on comparisons with other effluent-only schemes. Actual expenditure incurred from commencement of operation is not a reflection of likely future annual maintenance costs because not all customers have yet connected so the expenditure in the early years can not be used a reliable guide for future planning.

Costs to be considered:

- An effective septic tank desludging program, which is vital to minimize operational problems, blockages, treatment costs and gas attack in sumps in the public system;
- Regular flushing of the gravity drain lines to prevent build-up of sludge deposits. The CWMS is:
 - mostly either steep gravity drains with high upper-end inflows (eg, the Hospital), or
 - pressure main (eg, the Caravan Park and School).

Both types of main therefore have relatively high scour velocities and are unlikely to suffer from sludge build-up, even less so with an effective septic tank desludging program in place. Therefore the need for flushing is likely to be very low. Regardless, flushing may benefit from technological advances in contract flushing with “jetvac” or “supervac” equipment, which uses higher-scouring, retrofiring spray heads and techniques to remove more deposits and to lessen the required frequency, at similar cost.

- the Pump Station is equipped with a log book which is kept up to date with records of inspection and maintenance activities; this is a clear and commendable example of Best Practice;
- disposal for the present treated wastewater from the initiating (and only envisaged) customers is by way of evaporation, and ultimately by subsurface irrigation to a segregated woodlot if, and when, sufficient volumes of wastewater are generated. The subsurface installation will require occasional flushing only, with no moving parts to maintain, but not for some years.

Taking all of the above factors into account, and by comparison with similar systems elsewhere in SA, maintenance expenditure is estimated to be \$11,500pa in 2022/23, (excluding depreciation).

Operational maintenance costs are expected to be very low by comparison with typical schemes because of:

- relatively low generated volumes of wastewater;
- steep grades and pressure lines requiring little additional flushing;
- only about 3 or 4 septic tanks requiring desludging each year;
- solar power for disposal;
- evaporation of most, if not all, treated wastewater;
- for any surplus wastewater, little disinfection needed due to subsurface drip disposal adjacent to the lagoons; and
- no cost for water quality testing for re-use purposes since there is no re-use;
- maintenance of property pumps to become the responsibility of the land owner at the expiration of the warranty period (2 years).

CAPITAL EXPENDITURE

As this scheme commenced operation 2021 and based on standard lives for the asset components, the Remaining Useful Life of each component is currently only slightly less than the standard expected lives so there is no renewable capital expenditure forecast for the next 10 years and only minor expenditure forecast for the next 20 and 30 years. It is expected that ongoing maintenance will be enough to keep the scheme in good order.

Projected Capital Renewal Expenditure

Capital renewal (in the long term) is expected to be a pattern of large spikes of discrete renewal. The annual service charges for CWMS customers will enable a dedicated reserve to be built up for the renewal expenditure.

Some minor asset renewal will be done through maintenance (eg, a broken IP), and these costs will be covered by annual operating maintenance costs.

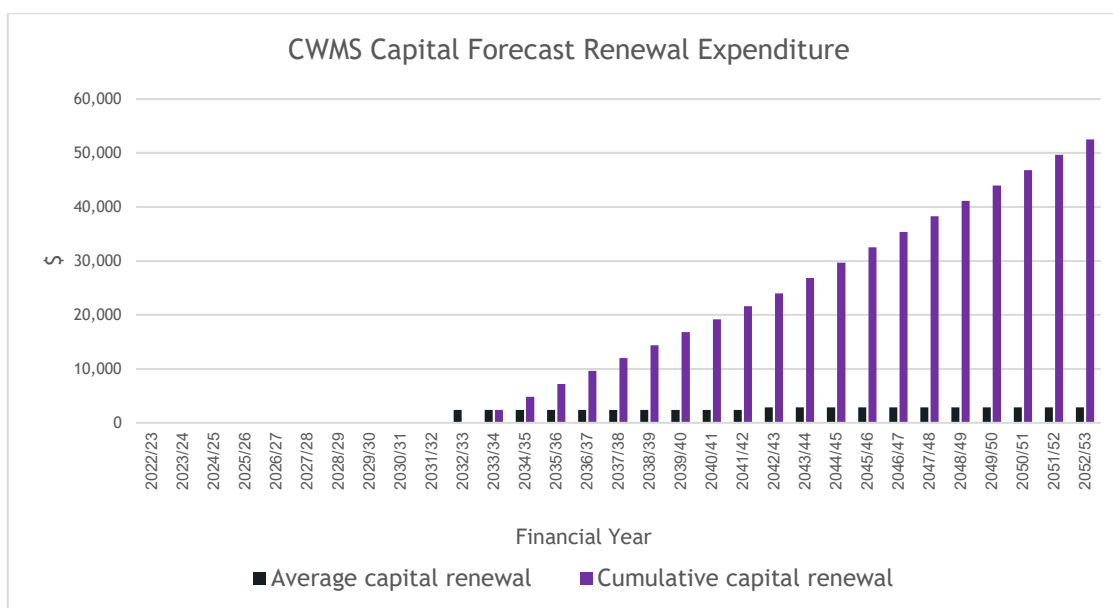
Because the capital investment occurred at the one time and given the long standard life of components, many are 25 – 100 years, the need for renewal expenditure is not expected during the first 10 year period of operation, to 2032. There are some planned Capital Upgrade costs in order to accommodate the planned new customer connections from 2024 and again in 2029.

Forecast Renewal/Replacement Capital Expenditure

The forecast total cost for the next 10 to 30 years in relation to replacing existing assets is shown in the following table:

CWMS	10 YEAR	20 YEAR	30 YEAR
Total cost per period	\$0	\$24,000	\$28,500
\$ per annum average for 10 year period	\$0	\$2,400	\$2,850

The total predicted Capital Renewal Cost forecast for the first three decades is very low (only \$52,500) due to the very long lives of most infrastructure components.



Construction of New or Upgraded Assets

The extent of the existing scheme caters for seven (7) customers who sought access to a CWMS service. Further expansion of the customer base is planned in the period commencing 2023/24. For Stage 2 there is a provision of \$200,000 for a further 9 connections. This will be partly funded by a subsidy of \$100,000.

There is a further provision of \$20,000 per year for one new customers to be added to the scheme from 2029/30. The availability of a subsidy will be pursued to meet this expenditure.

Other Assets

This class of assets includes furniture & fittings, computer & office equipment and various other minor capital items that do not fit under any of the categories covered above. The total cost of these assets is \$0.7M.

Forecast Capital Expenditure on Other Assets for the next 10 years

An allocation of between \$45 - \$51k per annum, has been included each year in the long term financial plan. The amount actually spent will be determined as part of the annual business planning process.



APPENDIX A

Adopted Road Standards

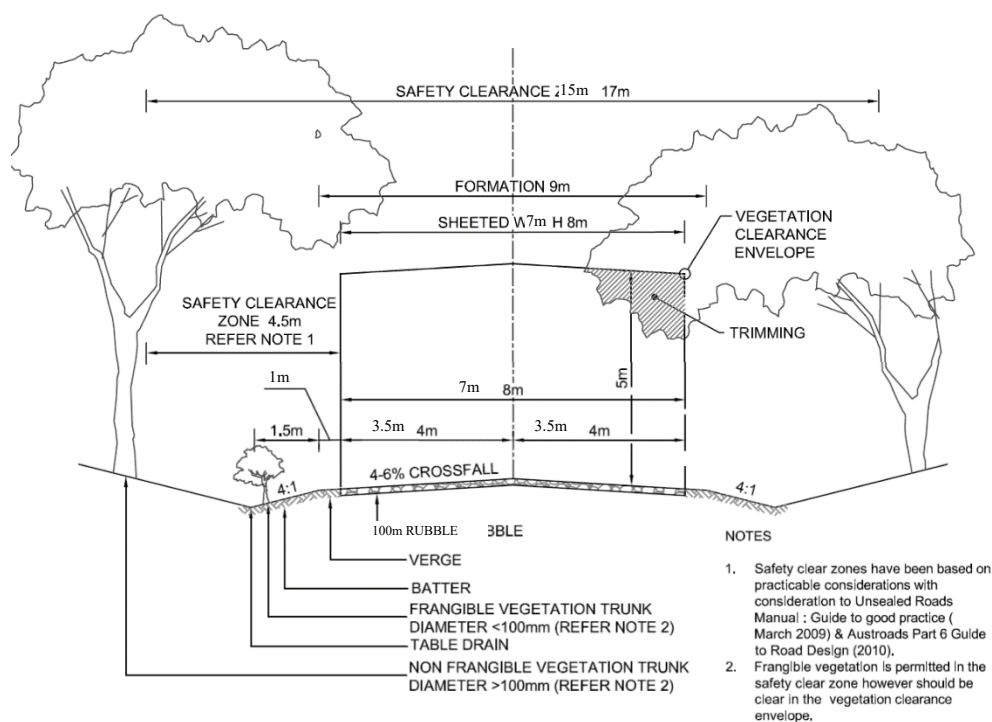
Updated May 2021

Classification	Width	Depth	Verge	Descriptor
Sealed	Varied	Varied	Varied	Major roads linking districts and towns, significant high use freight routes, town streets (within residential zoning*).
Town Sheeted	5 metres	100mm	-	Town streets (non-residential*)
Small Town Sheeted	4 metres	100mm	1 metre	Example towns include Eurelia, Morchard, Yatina
B Sheeted	7 metres	~100mm	1 metre	Linking towns / Significant tourist route / Commodity route based on ESA (Axle movements)
C1 Sheeted	6.5 metres	100mm	1 metre	Linking settlements / Secondary tourist route / Commodity route based on ESA Axle movements (may be seasonal)
C2 Sheeted	6 metres	100mm	1 metre	Farm gate to transport route
C3 Sheeted	5 metres	100mm	1 metre	Farm gate to transport route
C4 Sheeted	4 metres	100mm	1 metre	Single residence roads
D Non-sheeted	-	-	-	Farm gate to transport route. All weather access deemed not required

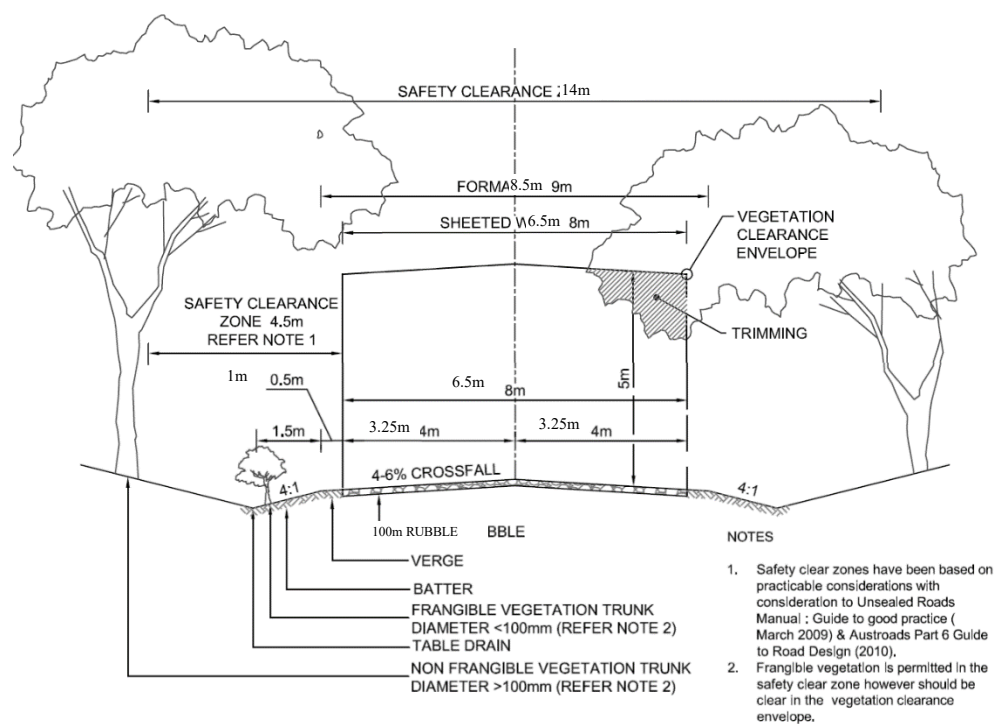
* local factors may influence

Desired Service Standards

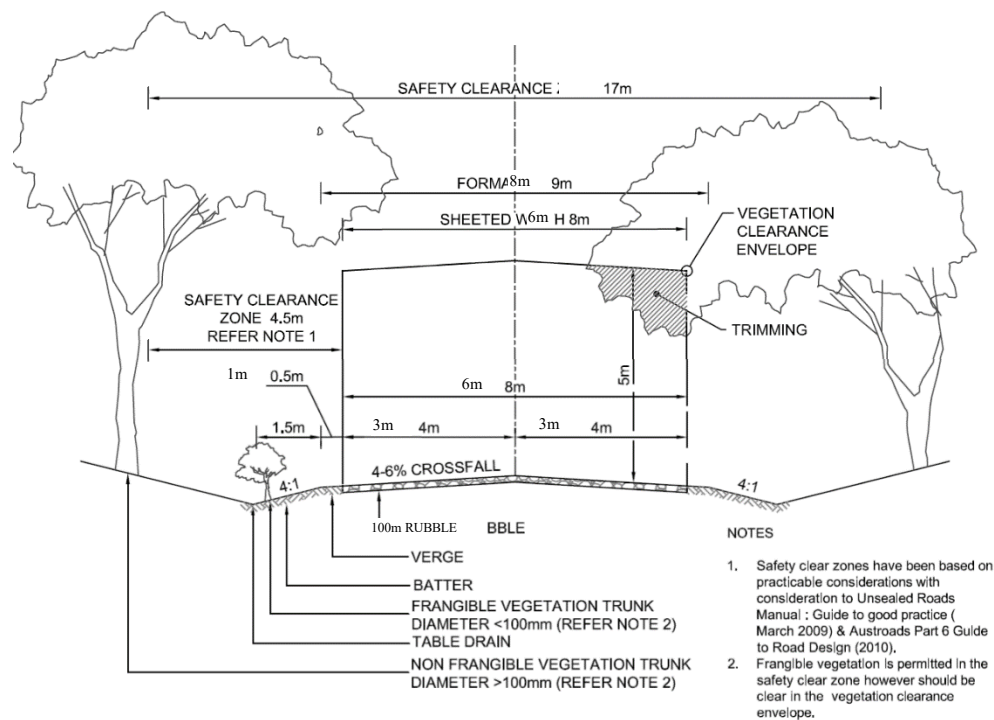
B Sheeted



C1 Sheeted



C2 Sheeted







APPENDIX B

Hierarchy of Roads – Road Classifications

2017

Updated May 2021

B Roads	Re-sheeted width 7 metres (plus 1m verge)	Distance (m)
Belton Rd	Carrieton - RRD2908	2875.3
Johnburgh Rd	RM Williams Way – Crotta Rd	40526.8
Minburra Rd	Orroroo – North Paratoo road	4132.8
Wilmington Rd		9350.1
C1 Roads	Re-sheeted width 6.5 metres (plus 1m verge)	Distance (m)
Boolcunda Rd	RM Williams Way - Almerda Rd	3003.1
Giant Gum Tree Rd		403.1
Lions Park Rd		294.9
Oladdie Rd	Through the Hills only	9200.8
Pekina - Black Rock Rd	RM Williams Way – Hogshead Road	15227.7
Stokes Hill Rd	Price Maurice Rd - RDD 1717	2528.8
C2 Roads	Re-sheeted width 6 metres (plus 1m verge)	Distance (m)
Almerda Rd		2333.6
Blue Gum Rd		4520.4
Brooks Rd		4086.5
Bully Acre Rd	Pekina/Black Rock Rd – 14028	9358.9
Chapman Rd	RM Williams Way – RRD4500	4500
Crotta Rd		5884.5
Gum Vale Rd		3206.5
Hogshead Rd	Blue Gum Road – Price Maurice Rd	3381.3
Morchard Rd	Wilmington Orroroo Road - End of Council Boundary	6442
McKay Rd	RM Williams Way - Feedlot	2630
Paratoo North Rd	Minburra Rd out	12403.1
Tarcowie Rd	Slippery Corner - Tarcowie	4767.3
C3 Roads	Re-sheeted width 5 metres (plus 1m verge)	Distance (m)
Amyton Rd		5474.8
Arthur Rd	School Tce – RM Williams Way	450
Baratta Rd		15103.6
Belton Rd	RDD 2908 - Belton Well road	25565.4
Bertha Brown Rd		4128.3
Boolcunda Rd	Almerda Rd - boundary	1943.1
Bouda Hut Rd		8660.7
Carrieton Cemetery Rd		349.3
Cemetery Rd (Orroroo)	Township	3110
Chapman Rd	RRD4500 - Morchard Rd	10938.7
Cottrells Rd	To David Lees house then D class	3369.2
Dump Rd		453.5
Eurelia West Rd		12606.8
Garden Rd		1787.4
Hogshead Rd	Pekina Black Rock Rd – Blue Gum Rd	5922.6
Johnburgh Rd	From Sandal Park north	17320.5
Kuerschner Rd		15693.5
McKay Rd		4467.6
Minburra Rd	North Paratoo road – Chris Nutt's	2001.6

Morchard Rd	RM Williams Way – Willowie road	22466.5
Nutt Rd	RM Williams Way – Dawson Road	908
O’dea Rd		4898
Oladdie Rd	RM Williams Way-hills & hills to Johnburgh road	10000
Old Tarcowie Rd	Price Maurice Rd to Henry Bennett’s	500
Pamatta Rd	To Pamatta homestead	12186.6
School Tce	Orroroo Township	174.3
Seventh Street	Orroroo Township	90.6
Slaughterhouse Rd	Orroroo Township	661.5
Tank Hill Rd		647.2
Tilbrook Rd		938.3
Tyeka Rd		8046.7
West Tce (Orroroo)	Arthur Rd to RRD 85- Township	84.9
C4 Roads	Re-sheeted width 4 metres (plus 1m verge)	Distance (m)
Arbon Rd	Melrose Rd – Arbon house	1112.1
Arthur Rd	School Tce – Turner house	2730.8
Belforest Rd		2160.9
Black Rock Rd		2482
Booleroo Springs Rd	To Willoughby’s	3338.4
Cemetery Rd (Eurelia)	RM Williams Way - Cemetery	1246
Circuit Rd	RM Williams Way – Dirt Circuit grounds	963
Cook Rd	Chapman Rd - RRD3641	3640.4
Coomooroo Rd	Orroroo Wilmington Rd - Chapman Rd	12204.8
Crocker Hill Rd	Price Maurice Rd – Kym Hooper house & Tansell house – Booleroo Rd	7988 7547
Dorwards Rd		563.7
Fifth St (Carrieton)	Small Township	305.2
Fromms Rd	Price Maurice Rd – where driveway enters private land	800
Gawler Tce		1367.6
Gorge Rd	Narien Rd – Pekina Black Rock Rd	3410
Haynes Rd		1164.1
Hoare Rd	RM Williams Way to homestead	1100.0
Hooper Rd		1400.9
Kilmore Rd		2627.3
Koch Rd		493.6
Laskey Rd	Morchard/Booleroo Rd - RRD4538	4538.6
McCallum Rd	Crocker Hill Rd - house	1166.6
Melrose Rd	To Duffy’s house	3400.8
Minburra Rd	RDD6137 (Chris Nutt’s)- boundary	36211.5
Mt James Rd		5843.3
No Name Road Morchard	Road to Gavin Laskey’s house	700
Nutt Ave		640.9
Nutt Rd (Moockra)		4327.9
O’Dea Rd		4108.9
Old Tarcowie Rd	After Henry Bennett’s	2633.2
Pekina - Black Rock Rd	Mannion Road – Price Maurice Rd	1523.6

Orroroo - Paratoo Rd		14324.9
Pamatta Rd	After Pamatta homestead	3449.3
Pekina Black Rock Rd	Mannion house – Price Maurice Rd	1523.6
Polden Rd	Wyndhurst Rd – Polden house	2000
Rademaker Rd		1541
Rec Rd (Pekina)	Small Town	470
Redden Rd	Blue Gum Road – Redden House	650
Short Rd		777
Stock Rd		356.4
Treehaven Rd		16837.2
Wyndhurst Rd	Cummings Rd – Polden Rd	6000.9
Yackara Rd	RM Williams Way – Yackara house	5890.6
D Roads	Non-sheeted	Distance (m)
Arbon Rd		1234.1
Belton Well Rd		1062.7
Benzic Rd		7205.9
Booleroo Springs Rd	Willoughby's gate – Booleroo road	4000
Briars Rd		5005.8
Bully Acre Rd	Teague Rd -Pekina Black Rock Rd	4677.9
Butterfields Rd		13658
Carrieton - Johnburgh Rd	Main St - Wilmington Rd	1045.8
Cemetery Rd (Eurelia)	Eurelia Cemetery - end	500
Chapman Rd	Morchard Rd - RRD17845	5841.9
Circuit Rd	Dirt Circuit grounds – Kuerschner Rd	2180.2
Clark Rd		3407.8
Hombsch Rd		417.4
Coomooroo Rd	Cook Rd - Chapman Rd	3404.1
Cottrels Rd		761.1
Crocker Hill Rd	Kym Hooper house – Tansell house	2489.6
Cross Rd		343.1
Cummings Rd		3398.3
Deidre Rd		4667.8
Eurelia Rd		1859.5
Garden Rd		10374
Gawler Tce		3430.7
Gorge Rd		11227.2
Hall Rd		380.5
Harvie Rd		3635
Hoare Rd	Homestead to old Railway Station	1330.3
James Range Rd		4973.6
Jarvis Rd		5453.9
Koch Rd		137.5
Laskey Rd	RRD 4538- Pekina Hill Road	2262.7
Lines Rd		2067.7
Mallee Bore Rd		9405

Mannion Rd		1575.6
Maurice Hill Rd		1951.6
McCallum Rd	House - end	1817.5
Mckay Rd		1166.1
Melrose Rd	From Duffys house to end	7081.7
Mt James Rd		949.2
Mt Raphael Rd		6009.7
Mt Swan Rd		5608.1
Mucra Hill Rd		3149.8
Narien Rd		7318.1
North Erskine Rd		1863.3
North Tohl Rd		13241.8
Orroroo - Paratoo Rd	after Luckrafts (2766), between North & South (1852)	4618
Pamatta Rd	Pamatta Homestead - RM Williams Way	9.3
Paratoo South Rd		17670.8
Polden Rd	Polden House - Amyton Rd	5670.4
Powerline Rd		3434.6
Pycroft Rd		3222.4
Rankin Rd		2835.7
Redden Rd	Redden house - end	2004.6
Reid Rd		1973.1
Road Reserve		660
Saints Rd		2067.1
Schmidt Rd		1287.2
Second St (Yatina)	Small Township	470.3
Schwarks Rd		1854.4
Shackleford Rd		1833.3
Shephards Crossing Rd		3605
Smith Rd		1999.7
Stock Rd		689.7
Stokes Creek Rd		2597.1
Teague Rd		8238
Treehaven Rd	After Yalpara	3958.3
Twidgen Rd		4260.9
Unnamed Roads		1367.7
Walloway Rd		6596.9
Wepowie Rd		3237.4
Wiera Downs Rd		8391.7
Winflete Rd		1889.4
Wyndhurst Rd	Kilmore Rd - Morchard Rd (Poverty Corner)	5468.9
Yackara Rd	Shephard house - RRD3287	4120.7
Yatina Plain Rd		2745.1



APPENDIX C

Asset Revaluation Schedule

Updated October 2023

Revaluation Schedule

Asset Group/Financial Year	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Roads (including stormwater)													
Buildings & Other Structures													
Community Wastewater Management System													

Legend:

Revaluation completed by external independent assessment	
Revaluation planned for completion by external independent assessment	