



murchisonshire

Ancient land under brilliant skies

Asset Management Plan

Part of Council's Planning for the Future

22 August 2024

Preamble

Pursuant to s 5.56 of the Local Government Act 1995 a local government is required to plan for the future its district through the preparation and adoption of various plans in accordance with Division 3 of the Local Government (*Administration*) Regulations 1996 as shown below.

Reg	Plan
19C	<p>Strategic Community Plan</p> <p>The Community Plan Sets out the vision, aspirations and objectives of the community. It also</p> <ul style="list-style-type: none">Covers a period of at least 10 years and to be reviewed every 4 yearsDeveloped with regard to the capacity of current and anticipated resources, strategic performance indicators and demographic trends
19DA	<p>Corporate Business Plan</p> <p>The Corporate Business Plan</p> <p>Sets out consistently with any relevant priorities as set out in the Strategic Community Plan Council's priorities for dealing with the objectives and aspirations of the community</p> <p>Governs internal business planning by expressing priorities by reference to operations that are within Council's capacity</p> <p>Develops and integrate matters relating to resources including</p> <ul style="list-style-type: none">Asset ManagementWorkforce PlanningLong-Term Financial Planning <p>Covers a period at least 4 years and to be reviewed annually</p>

This document covers the Corporate Business Plan Elements as highlighted above

Introduction

The Local Government (*Administration*) Regulations 1996 require the Strategic Community Plan to cover a period of at least 10 Financial Years and be reviewed at least once every 4 years, whilst plans that make up the Corporate Business Plan are to cover a period of at least 4 years and be reviewed annually.

From a practical and operational perspective, Council considers that whilst the period of the Strategic Community Plan and associated priorities within the Corporate Business Plan and Workforce Plan may be appropriate, it is considered that a longer-term 20-year view be taken with respect the actual application of resources through the Asset Management Plan and Long-Term Financial Plan.

In part this will align with more contemporary practice and allows consideration of works that may be required beyond a 10-year period but also recognise as highlighted below under "Background that significant changes have occurred since 2017 when the Strategic Community Plan and Corporate Business were adopted; many of which were previously not on the horizon.

The basis of this approach is also to ensure that mid- and long-term matters are considered annually so that pre-emptive actions can be taken today to mitigate potential future impacts and ensure long-term sustainability, but also importantly and that intergeneration equity matters are considered.

The principle of intergenerational equity holds that, to promote prosperity and quality of life for all, institutions should construct administrative acts that balance the short-term needs of today's generation

with the longer-term needs of future generations. It integral to the operation of society, governments including local government.

In local government this can be highlighted by the way it funds and accounts for the actions that it undertakes.

For instance, in any one year whilst operational cost are paid for by the community of the day some of the costs of replacement of assets should be paid and accounted for in the budget of the time as the residents and ratepayers have enjoyed the benefits of those assets and thereby not overly burden the future local community when assets need to be replaced. Similarly, current residents and ratepayers should not necessarily be required to pay entirely for future works which they have yet to benefit from.

Accordingly, both the Asset Management Plan and Long-Term Financial Plan are to address a period of 20 years each respective plan being prepared on the basis that it will be reviewed each year with year one of the Long-Term Financial Plan, which incorporates asset management aspects, being identical to the actual budget.

As a result, the Long-Term Financial Plan becomes effectively a 20-year budget document and one that can be reviewed and updated as new information comes to light but with the overall aim that it influences and guides the thinking as well as overall operation of the Shire in an integrated manner.

Put simply have regard to “*yesterday*”, look “*today*” but always focus on “*tomorrow*”. This way the future “*today*” will be potentially better than it would have otherwise been, the community grow and develop as a result and the financial costs will be more equitably distributed across the years.

Clearly these aspects require balancing and judgment. The Asset Management Plan and Long-Term Financial Plan aims to improve this balance by highlighting “*yesterday*”, “*today*” and “*tomorrow*”.

As a result, the Corporate Business Plan includes elements based on the above overarching philosophy.

Background

Since 2017 work has continued to develop the scope of works and in deliver a range of Capital Works identified in the Corporate Business Plan. However various significant changes have occurred as outlined below that need to be considered.

Murchison Settlement Redevelopment

Murchison Settlement Masterplan

The adopted in August 2021 the Settlement Masterplan took around 18 months to be finalised and provides a detailed layout of the way the settlement is to be developed. Importantly the Masterplan includes the following “Project Vision” statement which encapsulates the relationship of the Settlement within the context of the broader Shire.

“To ensure that Murchison Settlement is an attractive focal point that enables the Shire to function successfully and deliver a range of services that will underpin community, cultural and economic development within the Settlement and broader Shire”

Design principles have been developed to help guide the development of the Murchison Settlement Masterplan.

- ~ To create an attractive activity hub for the community and visitors to Murchison that maintains the existing character, cultural and built qualities of the Settlement.
- ~ Provide functional pedestrian connectivity, improved access, and sight lines throughout the precinct.

- ~ Design a unified landscape character that maximises shade.
- ~ Create a consolidated sequence of spaces and activities for locals and tourists.
- ~ Allow space in design for Geo/Astro tourism and convey the idea of 'The Oasis'.

A range of projects identified (in no priority order) included Community Swimming Pool / Splash Pad, New -Caravan Park Ablution Block, New -Caravan Park 2 Ensuite Units, General Settlement Amenity Improvements, and Playground Upgrade. An Interpretive Centre was also identified but required further scoping and development

Murchison Settlement Roadhouse Precinct Detailed Concept Design

In 2020/21 it was realised that Roadhouse and Caravan Park layout needed a supplementary review to further develop desired expansion that would dovetail into the wider Settlement Masterplan. Work was undertaken to also review the overall operation of the roadhouse, with Council assuming operational control in March 2021. This included considering the need to provide suitable long-term accommodation for the Roadhouse Management, to improve the functionality of the Roadhouse Business and to explore opportunities for a potential Interpretive Centre.

Murchison Vast Sky Experience Business Case

Adopted in February 2023 this Business Case evaluated opportunities from the emerging Mid-West space economy, with particular focus on the SKA and Mingenew Space Precinct. In many ways the development with potential transformative effect. It ticks an abundance of boxes such as strategically linking Vast Sky tourism, showcasing SKA / CSIRO, providing an accessible outback feel without camping out, increased GeoTourism and broader tourism within a regional context, purveying local history and pastoral influence, inclusion of local Wadjari aboriginal development opportunities, improved discovery walking trails as well as enhancing recruitment and retention opportunities for the Shire in an improved visually attractive environment.

The entire business case should be seen as being complimentary to the Murchison Settlement Masterplan and Roadhouse development plans that have already been undertaken. Stage 1 spend is around \$10.4m with further stages foreshadowed totalling \$11.5m over around a 10-year period. Business Case shows a profitable operation after 2 years. Significant levels of external funding will be required with any delivery will likely be very long term without significant external investment.

Murchison Settlement Infrastructure

Works previously identified to provide a Chlorinator for the Water Supply have been reassessed to include a major upgrade of the supply itself and provision of a new ring main unit to also separate drinking water from parks and gardens irrigation. A significant upgrade of the power supply on top of a planned solar microgrid upgrade also need to be considered.

Local Roads and Community Infrastructure Funds

Commonwealth Funding from the Local Roads and Community Infrastructure Program is available in 2023/24 and potentially in 2024/25 which is applicable to Settlement Community related projects.

Significant Road Considerations

Carnarvon-Mullewa Road Strategic Upgrade

In February 2020 Council reviewed its strategic approach in the construction and sealing of the Carnarvon-Mullewa Road and varying from a 4.0m seal to a 7.2m seal.

In November 2022 the Shire finally completed sealing to 7.2m width the remaining 9.0km gravel section on the Carnarvon-Mullewa Road between the Murchison Settlement and the southern Shire boundary. Overall, the Shire has constructed and sealed to a 7.2m width 35.42km since 2021. In part this accelerated program was aided by additional road grants but also by a \$2.0m roadworks loan taken out in 2020/21 as part of a COVID19 Stimulus approach.

Construction and sealing of the remaining 27.6km within the City of Geraldton is still to be done an element that Council is encouraging the City to do. Rehabilitation and widening of existing 4.0m sealed

sections is planned. Further strategic work involving potential construction of some passing lanes in sections north of the Murchison Settlement in accordance with Main Roads WA Roads 2040 Strategy is also possible.

Local Roads and Community Infrastructure Funds

Significant increases in Commonwealth Road Funding from the Local Roads and Community Infrastructure Program have been received and applied upgrade works on the Carnarvon-Mullewa Road. This is programmed to continue for 2025/26 for rural, regional and outer suburban roads.

Main Roads WA Regional Road Funds

The Carnarvon- Mullewa Road is the only road within the Shire classified of such strategic importance to potentially attract funds Main Roads Regional Road Group Funds on a 2 for 1 basis for more than one road funding project per annum. Changes in scoring criteria provide increased scope to construct and or rehabilitate sections moving forward.

SKA Route Works

The Shire has been assigned the responsibility to undertaker works on the SKA Road Route to assist in the establishment of the SKA Project on Boolardy Station for a five-year period commencing 2022/23. Almost all of the roads affected are the responsibility of Council meaning that external funds are being provided on roads that would have otherwise had to be funded from Councils own revenue sources.

Asset Management Plan

The Asset Management Plan is a long-term plan to manage a portfolio of Councils Assets. It as outlined as follows:

The Asset Management Plan comprises three separate plans comprising for Roads, Settlement Buildings and Facilities and Plant as summarised below.

Plan	Assets
Roads	Sealed Roads, Formed & Surfaced Roads, Formed Roads, Grids, Culverts, Signs
Settlement Building & Facilities	Shire Office Shire Depot & Sheds Community Centre Roadhouse Caravan Park Residential Houses Parks & Gardens and Sporting Facilities Airport Sealed Runway Taxiway Lighting and other infrastructure
Plant	Various items of major and minor plant
Other	Settlement Poer Supply Settlement Water Supply Other Infrastructure

Each has its own separate analysis and working model which can be readily updated and which are separately attached. The summarised results feed into the Budget and Long-Term Financial Plan

Roads

Background

Council's current Asset Management Plan for the period 2012/23 to 2031/32 was adopted by Council on 21 June 2013. When adopted it was noted that it future financial forecasts would be improved by

- ~ Updating the ROMAN roads data base to include useful asset condition assessments and signs, grids and floodways
- ~ A more detailed component level analysis of future renewal requirements
- ~ Continuation of the analysis of upgrade work needed to bring all assets to an agreed service level]
- ~ A review of assets that are underperforming or nearing the end of their useful life and
- ~ Continued breakdown of asset expenditure and future projections for maintenance and capital renewal

Whilst being legislative compliant, in reality the 2013 document, was a broad overview document and is not intended nor suited to year-to-year management of all assets, and particularly roads which make up such a significant portion.

Under the Financial Management Regulations Council is required to update it valuations for the purposes of its Annual Financial Reports. This task is required to be undertaken by licenced valuers for buildings and roads. This work has been undertaken in 2007 and most recently in 2022 for inclusion into the 2021/22 Financial Reports.

Whilst Council has detailed data bases for roads and a summary assessment for buildings, it is fair to say that thus far the data has not been used in any meaningful way in any replacement programs, nor cater for any new future or upgraded assets.

Revaluation Work

As a prelude to the 2022 revaluation work in 2020 Greenfields were engaged to update the ROMAN roads data base with inclusion of information including asset condition assessments, signs, grids and floodways plus a more detailed component level analysis. Photos of the road conditions were also undertaken and may be particularly useful in establishing conditions for flood damage assessment. The 2020 information obtained has now been recently updated for inclusion in the 2022 revaluation.

A summary of Greenfield's work is attached. Although only the summary sheets of this work is shown it has been undertaken at a comprehensive level with each road element contained on its own specific spreadsheet as per the following summary.

Road Element	No	Length (Km)	Area (m2)
Unformed Subgrade	16	295.03	1,675,970
Formed Subgrade	619	1,644.86	14,973,706
Unsealed Pavement	539	907.39	6,448,771
Sealed Pavement	122	206.03	1,921,209
Surfacing	345	290.24	1,774,250
Floodways	727		
Culverts	121		
Stock Grids	153		
Signs	2,945		
Bridge	1		

Whilst this information provides a sound base to support asset valuations, the data it required a significant amount of adaptive work to provide for not just programming for replacement works but also to include new works that have been or will be identified. Work to consolidate this into an adjustable program that can be readily amended, expanded has been undertaken and underpins the plan. This involved the following.

Existing Consolidation

- ~ Consolidating recorded information including formation, pavement and sealed widths and construction dates on a road and SLK basis
- ~ Classifying each segment by way of Surface Type into Formed, Formed and Surfaced, Concrete and Sealed on a road and SLK basis
- ~ Incorporating all of the descriptive supporting information for each floodway section which is separately identified in each road plus identified replacement dates as recorded through Greenfield's analysis

Future Management

- ~ 20-year management model on the same format as the current plant replacement program. This can be varied easily altered annually and includes options such as changing the start year and including inflation impacts
- ~ Provision of a variable upgraded works program that incorporates a variety of components for each section of road including road width standards and scheduled replacement dates, intended treatment, and costs that can distinguish between our costs and those of contractors.
- ~ Provision of a schedule of variable rates for unit costs, asset lives that can be adapted as required
- ~ Matching of capital road expenses with matching expenditures requirements as required by the grant for Main Roads WA and SKA Route Work.

Replacement Works

Gravel Resheet Programs

Replacements are based on a life of the asset. With an unsealed road network assessments can vary widely and to a certain extent are blurred within normal maintenance activities and flood damage repairs which for all intents and purposes can often restore the drivability of a road and extend its life. There is inbuilt degree of elasticity. A broad-brush assessment, whilst sufficient for an asset valuation purposes, needs to be modified according to local circumstances and conditions, as well as the degree of risk associated with each particular segment of road. Having a conservative approach will overstate the situation.

The Plan makes allowance for a “local” condition assessment in part by segmenting each road into small segments and having options for varying levels of intervention such with the Works Manager being able to use local knowledge to assess features such as location, traffic, availability of gravel and water, road classification etc.

The result of this approach should see a more realistic assessment which will most likely vary from that derived through the revaluation process and which will become in effect a de facto service level.

Floodways

To a large extent the treatment of floodway areas will perhaps have most critical impact on the road network as these sections will in many instances will more or less determine whether a road is open or closed. There are some 727 recorded but a number of others need to be added. Each floodway has its own construction elements. The Plan makes provision for these variations by providing options for various treatments and variations to asset lives and where necessary adding in new floodways. It is also likely that these areas will be the ones with the earlier focus

Reseal Programs

These are based on a life of the asset determined by a condition assessment. Unlike unsealed roads there are more potential risks associated with extending life of a reseal as this can have a detrimental effect on the quality of the surface and life of the pavement.

Rehabilitation of Existing Sealed Roads

Those that are not subject to upgrade during life of the plan have not included as the scheduled replacements are beyond the plans 20-year window. As time moves on this will alter. Once a road is upgraded to seal the next replacement to be included will have a reseal treatment.

Upgrade Works

Carnarvon-Mullewa Road

Construction and sealing of the remaining 27.6km within the City of Geraldton is still to be done an element that Council is encouraging the City to do. Rehabilitation and widening of existing 4.0m sealed sections is planned. Further strategic work involving potential construction of some passing lanes in sections north of the Murchison Settlement in accordance with Main Roads WA Roads 2040 Strategy

The Carnarvon- Mullewa Road is the only road within the Shire classified of such strategic importance to potentially attract funds Main Roads Regional Road Group Funds on a 2 for 1 basis for more than one road funding project per annum. Changes in scoring criteria provide increased scope to construct and or rehabilitate sections moving forward.

SKA Route Works

The Shire has been assigned the responsibility to undertake works on the SKA Road Route to assist in the establishment of the SKA Project on Boolardy Station for a five-year period commencing 2022/23.

Almost all of the roads affected are the responsibility of Council meaning that external funds are being provided on roads that would have otherwise had to be funded from Councils own revenue sources.

New Sections of Sealed Roads

Thus far upgrade and sealing on Mulga Crescent, Airport Access Road and Works Depot Road within the Settlement have been included. A section on the Beringarra-Pindar Road adjacent to the Nookawarra Homestead has been previously identified by Council.

Major Floodways

Reconstruction, upgrade and widening of concrete floodways on the Meeberrie- Wooleen Road over the Richardson River and Carnarvon- Mullewa Road over the Wooramel River have been identified

Other Works

Other major works not yet identified and not already included in the above will need to be considered as they come to light.

General

Unlike the June 2013 Asset Management which has really not been used in any meaningful way since, this Plan is intended to be an ongoing piece of work that is reviewed and updated on an annual basis. Whilst a 20-year period seems well into the future, annual reviews should identify any major issues well ahead so that that any adjustments and potential funding issues can be phased in over time.

Settlement Buildings & Facilities

APV Valuers were engaged to undertake a revaluation of the Shires Building and Assets located within the Murchison Settlement. Data from this revaluation was used to determine scheduled replacements. More detailed work will be required to refine this work.

New and expanded facilities as identified through the Murchison Settlement Masterplan Report, Murchison Roadhouse Precinct Redevelopment Detailed Concept Design and Vast Sky Experience Business Case have also been addressed. Various other infrastructure and building works have also been identified

Plant

The Shire updates its Plant Replacement Program annually

*Enc Road Asset Management Program
 Settlement Building and Facilities Program
 Plant Replacement Program*

Financial Implications

Financial implications associated with delivering the Asset Management Plan are outlined in the Asset Long Term Financial Plan and Annual Budget which also includes projections for a 4-year period.

Previous

28 September 2017

24 August 2023



murchisonshire

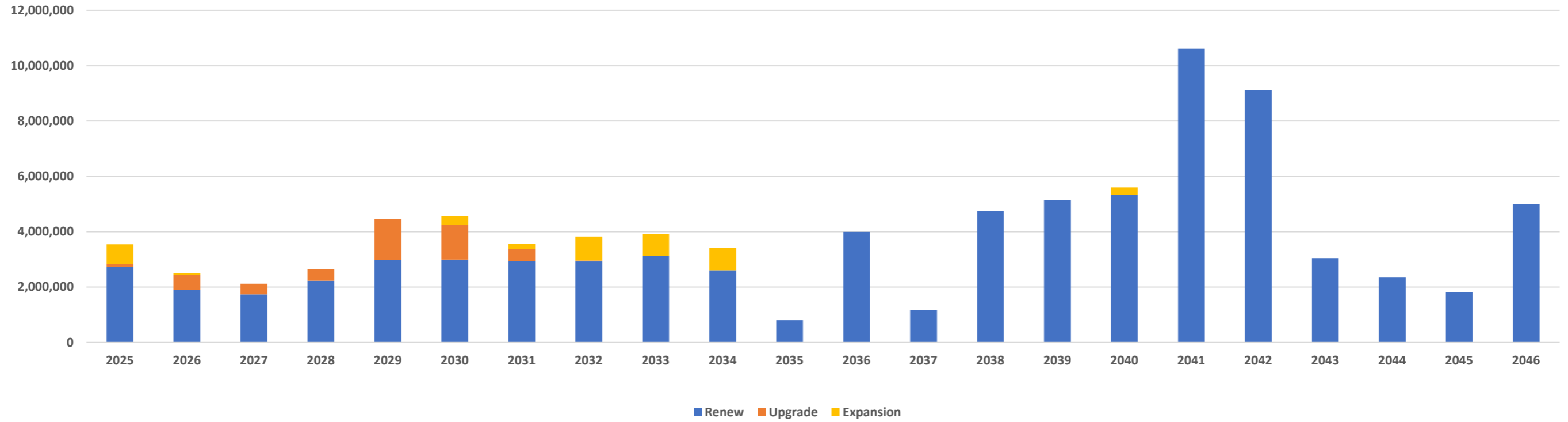
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Road Asset Management Plan

22 August 2024

Road Asset Management

Road Capital Expenses Type \$



Renew	2,726,184	1,895,979	1,737,580	2,228,511	2,986,538	2,993,345	2,943,241	2,927,377	3,136,036	2,605,730	804,238	3,994,777	1,178,410	4,758,035	5,151,808	5,332,157	10,607,969	9,128,796	3,028,952	2,342,099	1,822,266	4,989,388	
Upgrade	112,995	548,485	380,807	423,225	1,467,908	1,252,731	436,590	34,020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Expansion	706,933	55,656	0	0	0	303,600	185,226	864,107	786,710	815,408	0	0	0	0	0	272,664	0	0	0	0	0	0	

Murchison Roads Asset Management Plan - Assumptions & Rates

Item	Treatment	Widths (m)	Measure	Raw Rate	Markup	Rate	Cost \$ per km	Life	Comments
Seal / Concrete Surfacing Construction									
Prime & Two Coat Seal	Two Coat Seal	7.2	Cost per m2	12.50	5.0%	13.13	94,500		Sprayed Bituminous Initial Prime & Two Coat Seal. 2024 base costs
Standard Width									
Reseal	Reseal	7.2	Cost per m2	5.85	5.0%	6.14	44,226		Sprayed Bituminous One Coat Reseal 2024 base costs
Standard Width									
Concrete	Concrete	8.0	Cost per m2	545.00	10.0%	599.50			Concrete Floodway
Standard Width									
Floodway Other Costs									
Rock Protection One Side	Rock 1 Side		Cost per m	50.00	0.0%	50.00			Floodway with protection on one side
Rock Protection Two Sides	Rock 2 Sides		Cost per m	100.00	0.0%	100.00			Floodway with protection on two sides
Concrete Cut-off Wall One Side	Conc Wall 1 Side		Cost per m	100.00	0.0%	100.00			Floodway with cut-off wall on one side
Concrete Cut-off Wall Two Sides	Conc Wall 2 Sides		Cost per m	200.00	0.0%	200.00			Floodway with cut-off wall on two sides
Additional Culverts	Culverts		Cost per item	250.00	0.0%	250.00			Additional costs for major culverts associated upgrades
Major River Addition Works	River Wks		Cost per m	5,000.00	0.0%	5,000.00			Additional costs for major river upgrade crossings
Ballinyoo Bridge	Bridge		Item Cost	4,658,230.00	0.0%	4,658,230.00			
Other					0.0%	0.00			
Single Lane Grid Construction	3.8m Grid		Cost per Grid	15,000.00	0.0%	15,000.00			Single Lane Grid Construction
Two Lane Grid Construction	7.8m Grid		Cost per Grid	20,000.00	0.0%	20,000.00			Two Lane Grid Construction
Sign Small	Small		Cost per No	206.08	0.0%	206.08			
Sign Medium	Medium		Cost per No	303.72	0.0%	303.72			
Sign Large	Large		Cost per No	404.96	0.0%	404.96			

Murchison Roads Asset Management Plan - Assumptions & Rates

Item	Treatment	Widths (m)	Measure	Raw Rate	Markup	Rate Cost \$ per km	Life	Comments
PROGRAM USEFUL LIVES								
Formed	Nil		No of Years				0	No resheet required
Gravel Resheet Cat A	Resheet Typ 1		No of Years				15	Standard Gravel Resheet Category A Road. Also cement stabilised sections
Gravel Resheet Cat B	Resheet Typ 2		No of Years				20	Standard Gravel Resheet Category B Road. Also cement stabilised sections
Gravel Resheet Cat C	Resheet Typ 3		No of Years				25	Standard Gravel Resheet Category C Road. Also cement stabilised sections
Gravel Resheet Cat D	Resheet Typ 4		No of Years				30	Standard Gravel Resheet Category D Road. Also cement stabilised sections
Gravel Resheet Cat E	Resheet Typ 5		No of Years				35	Standard Gravel Resheet Category E Road. Also cement stabilised sections
Gravel Floodway Resheet Cat A	Fwy Resheet Typ 1		No of Years				10	Gravel Floodway Resheet Category A Road
Gravel Floodway Resheet Cat B	Fwy Resheet Typ 2		No of Years				15	Gravel Floodway Resheet Category B Road
Gravel Floodway Resheet Cat C	Fwy Resheet Typ 3		No of Years				20	Gravel Floodway Resheet Category C Road
Gravel Floodway Resheet Cat D	Fwy Resheet Typ 4		No of Years				25	Gravel Floodway Resheet Category D Road
Gravel Floodway Resheet Cat E	Fwy Resheet Typ 5		No of Years				30	Gravel Floodway Resheet Category E Road
Pavement & Cem Pavement	Pave		No of Years				60	
Pavement & Cem Pavement	Stab		No of Years				60	
Formed or Unformed Roads	Nil		No of Years				0	Not Applicable
Reseal Pavement	Reseal Pave		No of Years				60	
Reseal	Reseal		No of Years				17	
Two Coat Seal	Pave		No of Years					Not Applicable
Concrete	Concrete		No of Years				80	
Bridges	Bridge		No of Years				80	
WDV USEFUL LIVES								
General								
Pavement			No of Years					As per Program Useful Lives
Reseal Pavement	Reseal		No of Years				60	
Seal	Reseal		No of Years				17	
Concrete	Concrete		No of Years				80	
Culverts	Culverts		No of Years				80	
Single Lane Grid Construction	3.8m Grid		No of Years				80	
Two Lane Grid Construction	7.8m Grid		No of Years				80	
Intersection Upgrade	Int Upgrade		No of Years				0	
Bridges	Bridge		No of Years				80	
Sign Small	Small		No of Years				20	
Sign Medium	Medium		No of Years				20	
Sign Large	Large		No of Years				20	

Murchison Roads Asset Management Plan - Assumptions & Rates

Item	Treatment	Widths (m)	Measure	Raw Rate	Markup	Rate	Cost \$ per km	Life	Comments
Culverts									
	300 RCP		No of Years	50.00	0.0%	50.00		40	Replacement costs are included in additional culvert costs within each
	375 RCP		No of Years	60.00	0.0%	60.00		40	Replacement costs are included in additional culvert costs within each
	450 RCP		No of Years	70.00	0.0%	70.00		40	Replacement costs are included in additional culvert costs within each
	500 RCP		No of Years	80.00	0.0%	80.00		40	Replacement costs are included in additional culvert costs within each
	600 RCP		No of Years	85.00	0.0%	85.00		40	Replacement costs are included in additional culvert costs within each
	900 RCP		No of Years	90.00	0.0%	90.00		40	Replacement costs are included in additional culvert costs within each
	1200 RCP		No of Years	100.00	0.0%	100.00		40	Replacement costs are included in additional culvert costs within each
	1500 RCP		No of Years	110.00	0.0%	110.00		40	Replacement costs are included in additional culvert costs within each
	450 Heli Corr		No of Years	20.00	0.0%	20.00		40	Replacement costs are included in additional culvert costs within each
	300 HDP		No of Years	30.00	0.0%	30.00		40	Replacement costs are included in additional culvert costs within each
	400 HDP		No of Years	35.00	0.0%	35.00		40	Replacement costs are included in additional culvert costs within each
	450 HDP		No of Years	40.00	0.0%	40.00		40	Replacement costs are included in additional culvert costs within each
	1270 HDP		No of Years	75.00	0.0%	75.00		40	Replacement costs are included in additional culvert costs within each

Murchison Roads Asset Management Plan - Assumptions & Rates

Item	Treatment	Widths (m)	Measure	Raw Rate	Markup	Rate	Cost \$ per km	Life	Comments
Comparison with 2022 Roads Valuation	Snapshot of a general comparison of various elements associated previous roads valuation work undertaken in 2022								
Subgrade Unformed	2022 Valuation		Cost per m2			0.46		Infinite	
	Shire		Cost per m2			0.46		Infinite	Same Assumption
Subgrade Formed	2022 Valuation		Cost per m2			2.36		Infinite	
	Shire		Cost per m2			2.36		Infinite	Same Assumption
Basecourse Unsealed	2022 Valuation		Cost per m2			3.92			
	Shire		Cost per m2			5.60			Conventional resheet
						7.00			Resheet involving additional drainage or bunding works
	2022 Valuation		No of Years					10	
	Shire		No of Years					15	Varies according to the nature of road and expected traffic. Construction widths also vary
								35	
Basecourse Sealed	2022 Valuation		Cost per m2			13.11			
	Shire		Cost per m2			8.13			250mm compacted thickness
						10.08			250mm compacted thickness. Mark up 30% higher for road realignments
	2022 Valuation		No of Years					40	
	Shire		No of Years					60	Program includes a significant program of construction and reconstruction works. Detailed pavement analysis undertaken in 2023 on the Carnarvon-Mullewa Road will further inform this assumption
Sealed Surface Two Coat Seal	2022 Valuation		Cost per m2			14.50			
	Shire		Cost per m2			13.13			
	2022 Valuation		No of Years					15	
	Shire		No of Years					17	
Reseal	2022 Valuation		Cost per m2			5.45			
	Shire		Cost per m2			6.14			
	2022 Valuation		No of Years					15	
	Shire		No of Years					17	
Unsealed Floodways	2022 Valuation		Cost per m2			10.61			
	Shire		Cost per m2			5.60			
	2022 Valuation		No of Years					10	
	Shire		No of Years					10	Varies according to the nature of road and expected traffic. Construction widths also vary
							30		
Cement Stabilised Floodways	2022 Valuation		Cost per m2			14.30			
	Shire		Cost per m2			7.80			
Concrete Floodways	2022 Valuation		Cost per m2			209.32			
	Shire		Cost per m2			599.50			
	2022 Valuation		No of Years					80	
	Shire		No of Years					80	

Murchison Shire - Roads Program Summary

RD	Description	Surface Type	Updated Surface Type	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
MUGGON STATION RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	89,813					
MUGGON STATION RD	Resheet Works	Formed	Formed																						
MUGGON STATION RD	Resheet Works	Unformed	Unformed																						
MULGA RD	Reseal Works	Sealed	Sealed																						
MULGA RD	Formed & Surf Const	Formed & Surfaced	Sealed	274,444																					
MURCHISON AIRSTRIP ACCESS RD	Formed & Surf Const	Formed & Surfaced	Sealed	13,388																					
MURCHISON RDHOUSE ACCESS RD	Reseal Works	Sealed	Sealed																						
MURGOO HOMESTEAD ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	47,296					
MURGOO HOMESTEAD ACCESS RD	Resheet Works	Formed	Formed																	10,374					
NEW FORREST - YALLALONG RD	Floodway Works	Concrete	Concrete																						
NEW FORREST - YALLALONG RD	Reseal Works	Sealed	Sealed																						
NEW FORREST - YALLALONG RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	768,819					
NEW FORREST - YALLALONG RD	Resheet Works	Formed	Formed																	709,206					
NOOKAWARRA ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	17,640					
OFFICE RD	Reseal Works	Sealed	Sealed																						
OFFICE RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	6,664					
PIA WADJARRI ACCESS RD	Resheet Works	Unformed	Unformed																						
PINEGROVE - YALLALONG RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																	25,425	39,682				
PINEGROVE - YALLALONG RD	Resheet Works	Unformed	Unformed																						
PINEGROVE - YALLALONG RD	Unformed	Unformed	Unformed																						
PINEGROVE HOMESTEAD ACCESS	Reseal Works	Sealed	Sealed																						
PINEGROVE HOMESTEAD ACCESS	Resheet Works	Formed & Surfaced	Formed & Surfaced																		113,022				
REFUSE SITE ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		9,100				
REFUSE SITE ACCESS RD	Resheet Works	Formed	Formed																		66,640				
RODERICK STREET	Reseal Works	Sealed	Sealed																						
RODERICK STREET	Resheet Works	Formed & Surfaced	Formed & Surfaced																		3,830				
SHIRE DEPOT ACCESS RD	Formed & Surf Const	Formed & Surfaced	Formed & Surfaced	20,438																					
TARDIE - YUIN RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		168,364				
TARDIE - YUIN RD	Resheet Works	Formed	Formed																		297,724				
TWIN PEAKS - WOOLEEN RD	Formed & Surf Const SKA	Sealed	Sealed																						
TWIN PEAKS - WOOLEEN RD	Formed & Surf Const SKA	Formed & Surfaced	Formed & Surfaced			25,200															25,200				
TWIN PEAKS - WOOLEEN RD	Formed & Surf Const SKA	Formed & Surfaced	Formed & Surfaced		55,656	225,670	392,364									9,072					216,598	392,364			
TWIN PEAKS - WOOLEEN RD	Formed & Surf Const SKA	Formed	Formed & Surfaced			21,924															21,924				
TWIN PEAKS ACCESS RD	Resheet Works	Unformed	Unformed																						
TWIN PEAKS - WOOLEEN ROAD	Resheet Works	Unformed	Unformed				226,386														234,662	226,386			
WOOLEEN - MT WITTENOOM RD	Formed & Surf Const SKA	Formed & Surfaced	Formed & Surfaced			138,823									6,300						132,523				
WOOLEEN - MT WITTENOOM RD	Formed & Surf Const SKA	Formed & Surfaced	Formed & Surfaced			325,080															325,080				
WOOLEEN - MT WITTENOOM ROAI	Resheet Works	Formed & Surfaced	Formed & Surfaced				171,158										21,672				1,021,725	149,486			
WOOLEEN - MT WITTENOOM ROAI	Resheet Works	Formed	Formed & Surfaced				40,320														21,420	40,320			
WOOLEEN ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		20,160				
WOOLEEN ACCESS RD	Resheet Works	Formed	Formed																		81,732				
WOOLGORONG - YUIN RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		2,016				
WOOLGORONG - YUIN RD	Resheet Works	Unformed	Unformed																						
WOOLGORONG RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		79,178				
WOOLGORONG RD	Resheet Works	Formed	Formed																						
WREATH FLOWERS ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		16,612				
WREATH FLOWERS ACCESS RD	Resheet Works	Formed	Formed																		96,264				
YUIN HOMESTEAD ACCESS RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		16,744				
YUIN HOMESTEAD ACCESS RD	Resheet Works	Formed	Formed																		7,560				
YUNDA RD	Resheet Works	Formed & Surfaced	Formed & Surfaced																		54,054		6,006		
YUNDA RD	Resheet Works	Formed	Formed																						
Totals				3,546,111	2,500,121	2,086,131	2,651,736	4,454,446	4,549,676	3,551,512	3,825,504	3,922,746	3,354,228	804,238	3,994,777	1,178,410	4,688,987	4,964,371	5,604,821	10,607,969	8,090,400	3,011,968	2,342,099	1,822,266	4,989,388



murchisonshire

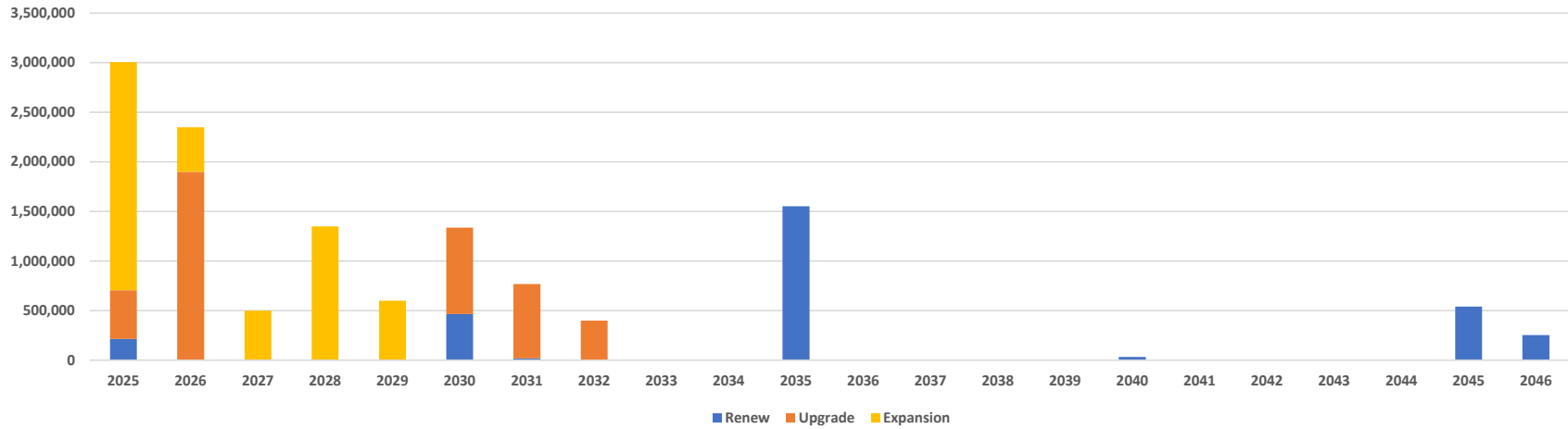
Ancient land under brilliant skies

Settlement Buildings & Infrastructure

22 August 2024

Settlement Capital Works Summary \$

Reporting Description	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Fire Prevention Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Staff Housing Buildings & Improvements	0	0	0	250,000	250,000	351,679	0	0	0	0	281,036	5,500	0	0	0	0	0	0	0	0	382,065	49,911
Community Amenities Capital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sport & Rec Buldg & Improv	695,000	0	200,000	0	0	3,739	0	0	0	0	0	0	0	0	0	1,378	0	0	0	0	10,889	0
Heritage Buildings & Improvements	0	0	0	0	0	13,304	0	0	0	0	0	1,774	0	0	0	0	0	0	0	0	0	0
Depot Buildings & Improvements	0	0	0	0	0	2,975	0	0	0	0	0	0	0	0	0	31,996	0	0	0	0	0	0
Airport Improvements	0	0	0	0	0	0	0	0	0	0	1,251,754	0	0	0	0	0	0	0	0	0	0	0
Tour Area Prom Buildings & Improvements	150,000	1,250,000	300,000	0	350,000	50,800	0	0	0	0	17,745	0	0	0	0	0	0	2,863	0	0	3,646	0
Tour Area Prom Infrastructure	1,250,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Infrastructure	620,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Power Infrastructure	290,000	1,100,000	0	1,100,000	0	160,152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration Building & Improvements	0	0	0	0	0	627,010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204,077
	3,005,000	2,350,000	500,000	1,350,000	600,000	1,209,660	0	0	0	0	1,550,534	7,274	0	0	0	33,374	0	2,863	0	0	396,600	253,988



Renew	215,000	0	0	0	0	466,766	18,984	0	0	0	1,553,553	7,274	0	0	0	33,374	0	2,863	0	0	540,218	253,988
Upgrade	490,000	1,900,000	0	0	0	870,000	750,000	400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Expansion	2,300,000	450,000	500,000	1,350,000	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3,005,000	2,350,000	500,000	1,350,000	600,000	1,336,766	768,984	400,000	0	0	1,553,553	7,274	0	0	0	33,374	0	2,863	0	0	540,218	253,988

Murchison Settlement Buildings & Infrastructure - August 2024

COA	Description	Job No	Description	Comments	Ext Cost \$ (excl Inflation)	Year
09134	Staff Housing Buildings Improvements	C14226	Capex - Construct Staff Housing, Murchison Settlement	New Staff Housing	250,000	2028
09134	Staff Housing Buildings Improvements	C14226	Capex - Construct Staff Housing, Murchison Settlement	New Staff Housing	250,000	2029
09134	Staff Housing Buildings Improvements	RN10BK	CapEx - Renovation 10B Kurara Way	New Single Room Extension as per 10A Kurara Way	90,000	2030
09134	Staff Housing Buildings Improvements	RN4AKU	CapEx - Renovation 4A Kurara Way	New Single Room Extension as per 10A Kurara Way	90,000	2030
09134	Staff Housing Buildings Improvements	RN4BKU	CapEx - Renovation 4B Kurara Way	New Single Room Extension as per 10A Kurara Way	90,000	2030
10702	O.C.A Buildings & Improvements	C10002	D Capex - Community Centre Upgrade Stage 1	Refurbish existing Sports Club	750,000	2031
10702	O.C.A Buildings & Improvements	C14234	A Capex - Community Centre Upgrade Stage 2	Refurbish existing Sports Club	400,000	2032
11302	Other Rec & Sport Buildings & Improvements	C11003	J Capex - Playground Upgrade	Potential part Lottery West Funded	200,000	2027
11302	Other Rec & Sport Buildings & Improvements	C11004	Sports Club Access Upgrade	Relay Paving and extend grass areas	37,500	2025
11302	Other Rec & Sport Buildings & Improvements	C14230	Community Centre / Sports Club Refurbishments	Kitchen & Bar makeover	27,500	2025
11302	Other Rec & Sport Buildings & Improvements	C11006	Community Splash Pad	In conjunction with Carvan Park Pool Project. Part Lottery West Funded	630,000	2025
11609	Museum Buildings & Improvements	C11640	Museum Build & Improv General	Extension following implementation Part of Vast Sky Business Works		
13203	Tour Area Prom Buildings & Improvements	C13005	F Capex - New Caravan Park Ablution Block	Completion of 2024 Project	150,000	2025
13203	Tour Area Prom Buildings & Improvements	C13010	Capex - Roadhouse Residence	New Accommodation for Roadhouse Manager	450,000	2026
13203	Tour Area Prom Buildings & Improvements	C13015	Capex - Roadhouse Business Bldg.	Major refurbishment	800,000	2026
13203	Tour Area Prom Buildings & Improvements	C13007	Cap Ex Ensuites to C/V Park Cabins	Defer at this stage and revisit if necessary		
13203	Tour Area Prom Buildings & Improvements	C13025	H Caravan Park Ensuites	New 3 Units	350,000	2029
13203	Tour Area Prom Buildings & Improvements	C13026	K Interpretive Centre	Part of Vast Sky Business Case		
13203	Tour Area Prom Buildings & Improvements	C13027	Staff Accommodation Units	Initial two separate units	300,000	2027
13203	Tour Area Prom Buildings & Improvements	C13027	Staff Accommodation Units	Part of Vast Sky Business Case Requirements		
13205	Tour Area Prom Infrastructure	C13031	Caravan Park Pool Construction	In conjunction with Community Splash Pad Project. Part LRCIP Funded	1,250,000	2025
13657	Water Infrastructure	C13670	Water Supply Capital	General Water Asset Replacement Works Post plan as majority new in 2024		
13657	Water Infrastructure	C13671	Irrigation Water Supply Capital	Replacements to be separately assessed as required		
13657	Water Infrastructure	C14720	Improvements To drinking Water reticulation	New Bores, Shed Pump House & Ring Main Unit 2024 Part completed		
13657	Water Infrastructure	C14720	Improvements To drinking Water reticulation	New Bores, Shed Pump House Ring Main Unit & Connections	350,000	2025
13657	Water Infrastructure	C14720	Improvements To drinking Water reticulation	New Chlorinator. Part Infrastructure Development Funding	270,000	2025
13658	Power Infrastructure	C13660	Power Supply Capital	Replace section underground power - Part 1	150,000	2025
13658	Power Infrastructure	C13660	Power Supply Capital	Replace section underground power - Part 2	150,000	2030
13658	Power Infrastructure	C13661	Power Supply Upgrade	Upgrade of Existing Powerhouse Switchboard	100,000	2025
13658	Power Infrastructure	C13661	Power Supply Upgrade	Provide new U/G Connection to Water Supply	40,000	2025
13658	Power Infrastructure	C13661	Power Supply Upgrade	Upgrade of Powerhouse. Part Infrastructure Development Funding	1,100,000	2026
13658	Power Infrastructure	C13662	Solar Power Provision	Potential Grant or loan funded	1,100,000	2028
14515	Administration Building & Improvements	C14001	Capex Minor Modifications to Council Building	Move Library, Refurbish & Extend Council Chamber to cover in verandah	600,000	2030

Sub Total New Expanded or Upgraded Works

9,975,000



murchisonshire

Ancient land under brilliant skies

Plant Replacement Program

22 August 2024

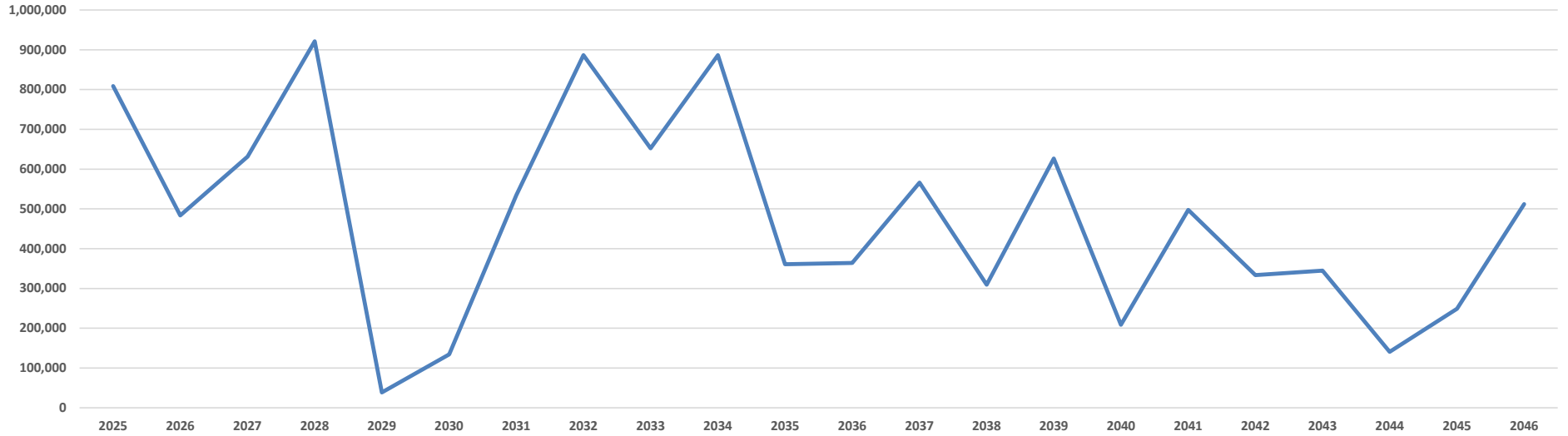
Plant Replacement Program

Plant Type	Est Costs exl Inflation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Bulldozers	Purchase																450,000						
Caravans	Purchase		110,000							220,000	210,000				110,000			110,000					110,000
Dollies	Purchase						30,000					30,000								90,000			
Fire - Fast Attack	Purchase						10,000																
Fire Trucks	Purchase						10,000																
Forklifts	Purchase						40,000								40,000								40,000
Gen Sets Medium	Purchase		20,000				40,000		20,000	60,000					40,000				20,000	60,000			40,000
Gen Sets Small	Purchase						18,000								18,000								18,000
Graders	Purchase		500,000		500,000	500,000				500,000	500,000	500,000					500,000		500,000	500,000			
Loaders	Purchase					450,000						450,000				450,000							
Low Loader Floats	Purchase												187,000		187,000								
Mini Excavators	Purchase			16,000										16,000									
Misc	Purchase						20,000								20,000								20,000
Ride On Mower	Purchase			12,000		12,000					12,000			12,000						12,000			12,000
Rollers	Purchase					223,510	466,000														223,510	466,000	
Side-tippers & Trailers	Purchase					300,000									340,000		100,000				300,000		
Small Plant Items	Purchase						100,000				25,000			125,000	100,000			20,000					100,000
Tractors	Purchase																			80,000			
Trailers Medium	Purchase											90,000				12,000				24,000			
Trailers Small	Purchase						10,000			12,000				20,000				12,000		12,000			
Trucks - Heavy	Purchase		335,000		335,000			100,000						335,000				100,000			335,000		
Trucks - Light	Purchase						75,000		125,000								75,000		125,000				
Utes	Purchase					30,000	70,000					70,000					70,000					70,000	30,000
Vehicles Other	Purchase																60,000						
Vehicles Admin	Purchase		70,000				70,000		70,000			70,000		70,000			70,000		70,000				70,000
Plant Purchases			630,000	433,000	500,000	1,850,510	959,000	100,000	195,000	732,000	230,000	1,307,000	687,000	578,000	855,000	462,000	1,325,000	242,000	909,000	584,000	858,510	618,000	358,000
Plant Sales		0	105,000	125,500	90,000	295,702	154,600	0	47,000	110,000	25,000	248,500	90,000	125,000	70,000	90,000	157,000	10,000	145,000	105,500	114,702	126,600	21,000
Road Plant Purchases	Purchase	0	610,000	396,000	500,000	1,838,510	701,000	100,000	125,000	720,000	110,000	1,125,000	687,000	496,000	677,000	462,000	1,195,000	222,000	795,000	500,000	858,510	536,000	180,000
Minor Plant Purchases	Purchase	0	20,000	12,000	0	12,000	188,000	0	0	12,000	120,000	112,000	0	0	178,000	0	60,000	20,000	44,000	84,000	0	12,000	178,000
Admin Vehicle Purchases	Purchase	0	0	70,000	0	0	70,000	0	70,000	0	0	70,000	0	0	0	0	70,000	0	70,000	0	0	70,000	0
Sale of Plant Assets	Trade	0	(105,000)	(100,500)	(90,000)	(295,702)	(129,600)	0	(22,000)	(110,000)	(25,000)	(223,500)	(90,000)	(100,000)	(70,000)	(90,000)	(132,000)	(10,000)	(120,000)	(105,500)	(114,702)	(101,600)	(21,000)
Admin Vehicle Sales	Trade	0	0	(25,000)	0	0	(25,000)	0	(25,000)	0	0	(25,000)	0	(25,000)	0	0	(25,000)	0	(25,000)	0	0	(25,000)	0
Net		0	525,000	352,500	410,000	1,554,808	804,400	100,000	148,000	622,000	205,000	1,058,500	597,000	371,000	785,000	372,000	1,168,000	232,000	764,000	478,500	743,808	491,400	337,000

Plant Replacement Program

Plant Type	Est Costs exl Inflation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Plant Reserve																							
Opening Balance of Plant Reserve		808,758	808,758	483,758	631,258	921,258	38,621	134,221	534,221	886,221	652,221	886,439	360,892	363,892	565,892	309,392	626,610	208,610	497,563	333,563	345,063	140,473	249,073
Trans from Plant Res		0	(525,000)	(352,500)	(410,000)	(1,682,637)	(804,400)	(100,000)	(148,000)	(634,000)	(265,782)	(1,125,547)	(597,000)	(498,000)	(1,006,500)	(432,782)	(1,168,000)	(311,047)	(764,000)	(588,500)	(804,590)	(491,400)	(337,000)
Trans to Plant Res		0	200,000	500,000	700,000	800,000	900,000	500,000	500,000	400,000	500,000	600,000	600,000	700,000	750,000	750,000	750,000	600,000	600,000	600,000	600,000	600,000	600,000
Adjustment to Actual		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closing Balance Plant Reserve		808,758	483,758	631,258	921,258	38,621	134,221	534,221	886,221	652,221	886,439	360,892	363,892	565,892	309,392	626,610	208,610	497,563	333,563	345,063	140,473	249,073	512,073

Plant Reserve Balance \$



Plant Reserve Balance	808,758	483,758	631,258	921,258	38,621	134,221	534,221	886,221	652,221	886,439	360,892	363,892	565,892	309,392	626,610	208,610	497,563	333,563	345,063	140,473	249,073	512,073
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