


Roads Forward

Works Plan 2026 - 2036

Project Priority Listing



Document Control		 Shire of Serpentine Jarrahdale			
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Shire of Serpentine Jarrahdale

Roads Forward Work Plan 2026-2036 and beyond

EXECUTIVE SUMMARY

The Shire has developed an Asset Management Plan (AMP) for the major asset class of roads in accordance with the Council's Asset Management Policy to establish sustainable continuous improvement, robust governance and best management of the Shire's road infrastructure assets.

The Shire maintains 797 kilometers of road assets with a replacement cost of \$440 million as of 30 June 2024. Most of the strategic improvements identified in the current Roads AMP are underway and will be completed by 2025. Further improvements have been identified that will enhance future revisions of the plan and provide greater financial alignment with the Long-Term Plan.

The Shire's Infrastructure Services Directorate commenced the review of the road condition data completed in 2023 and the preparation of the Roads Forward Works Plan (RFPW) for 2026-36 and beyond. The RFPW is a program of roads capital projects anticipated to be undertaken by the Shire in the future. The plan will be reviewed on an annual basis and has been developed based on the following principles:

- The Shire has considered the renewal of road assets and will ensure they are maintained in good condition in the future.
- The amount of funding the Council allocates to Capital Works is based on what the Council can afford and is sustainable in the future.
- The Council's future revenue base from rates and other sources is likely to grow along with the community expectations for infrastructure and services.
- The projects have been listed and prioritised by using a multiple criterion.

The RFPW does not consider new assets less than 10 years old or those that are being gifted through development and the hyper-growth roads nominated by the Road Advocacy Upgrade Plan.

As community requirement dictates and funding becomes available, the Shire will plan capital upgrades and new projects to meet levels of service objectives by:

- Planning for new assets in alignment with the needs of the Shire and the Council's capacity to maintain them in the future.
- The social, environmental, and economic impacts of creating any new road assets in the Shire have been carefully considered and business plans have been prepared for major projects.

The RFPW will guide the Infrastructure Service Directorate to continuously improve services provided, establishing best practice strategic and operational asset management methodologies across people, processes and systems.

Asset Data & Condition Analysis

The key messages from the RFWP26/36 and beyond are summarised below:

- The data utilised to develop the RFWP is approximately 95% accurate. The recent condition ratings of roads more than 10 years old were established via a Visual Inspection Road Condition audit conducted in 2023.
- 31% of the Shire's Road network is in good condition of the road surface rated as either a 1 or a 2. (Very Good or Good).
- 29% of road surface has reached the renewal intervention level of condition 3 (Fair).
- The higher risk rated road assets 40% (condition 4 & 5) form the basis of the 10-year Resurfacing Renewal Program

Level of Service and Risk Management

Level of Service is defined service qualities for all road asset maintenance and renewal against their performance. Service levels relate to the roads quality, reliability, responsiveness, and acceptability measured through the community perceptions survey which was completed in 2022. Community satisfaction of the Shire's Road condition and maintenance service is low, with 21% of those surveyed rates roads condition either terrible or poor.

The Shire recognises the importance of its responsibility to manage road assets to achieve optimum asset life whilst maintaining the level of service and risk monitored and managed in conjunction. The higher risk rated roads have been examined and project developed to form the RFWP.

Financial Analysis

The Financial Analysis section of this report provides the recommended financial forecasts for the next 10+years. This section brings together the various types of funding sources and provides recommended budgets for Council to achieve the appropriate level of service through available funding.

To provide effective management of the road infrastructure asset base it is imperative that Long Term Financial Plan (LTFP) funding strategies are adequate and timely to support asset renewal projections. The current LTFP provides only \$20M for operations, maintenance, and renewals for the next 10 year period. Under present LTFP funding only 25% of the Condition 5 road projects can be completed by 2037.

The RFWP is a program of roads capital projects anticipated to be undertaken by the Council in the future and will be reviewed during annual budget planning processes and amended to any changes in service levels or resources available to provide those services because of budget decisions.

1. Introduction

1.1. Background

This RFWP has been developed to assist the Infrastructure Services Business Unit to outline the management of assets, compliance with regulatory requirements, and to highlight the funding required to provide the appropriate Levels of Service.

The RFWP is to be read in conjunction with the following associated planning documents:

- Corporate Business Plan 1 July 2023 - 30 June 2027
- Council Plan 2023-2033
- Asset Management Plan Version 5
- Roads Condition Survey 2023
- Customer Perception Survey – November 2022

1.1.1. Corporate Business Plan 1 July 2023 - 30 June 2027

The Corporate Business Plan is a part of the Shire's Planning and Reporting Framework which applies to all Local Governments to ensure they plan for the future of district. This Corporate Business Plan is the Shire's four-year delivery program, aligned to the Shire's Council Plan and accompanied by four-year financial projections.

The purpose of the plan is to achieve the Community's vision and the Shire's strategic objectives by detailing the projects and activities that will be undertaken to address the strategies contained within the Council Plan.

The Corporate Business Plan details the projects and activities that will be undertaken to address the initiatives contained within the Council Plan 2023-2033. Preparation of a Strategic Hypergrowth Road Advocacy and **Roads Forward Works Plan** was highlighted under "Prosperity" delivery program section, and it was proposed to be completed within the 2023-2024 financial year.

1.1.2. Council Plan 2023-2033

The Council Plan 2023-2033 outlines the Council's strategic priorities and long-term vision, shaped through the community input via workshops, surveys, and the Your Say SJ platform.

The key initiatives that the community likes to see implemented over the 2024-2028 period are the improvement of maintenance and investment in roads and footpaths, which focus on connectivity within communities.

In addition to maintaining the existing levels of service, the Corporate Business Plan outlines the need for the completion of several new initiatives for implementation over the four-year period.

The project and activities occurring within the 2024-2028 period are:

- Hypergrowth Road Upgrades – Kargotich and Orton Road;
- 8 of selected Federal and State Blackspot Road Upgrades;
- 5 of selected Metropolitan Regional Road Group Upgrades;
- New Carpark for Gooralong Trail Precinct;
- **Roads Forward Works Plan;**

- Footpath Forward Works Plan;
- Development and maintenance of maintenance schedule for playgrounds, verges, facilities, parks, and gardens.

1.1.3. Asset Management Plan V5 – 2019

The Roads Asset Management Plan, Version 5 (AM Plan) endorsed by Council in January 2019 outlines all the tasks and resources required to manage and maintain the Shire's roads infrastructure network to an agreed level of service, in consultation with the community's expectations.

The estimated renewals expenditure for the 10-year period calculated on the 2019 budget leaving a shortfall of \$2.8 million that was mitigated by proposed increase of \$1 million per year be provided within LTFP.

The current LTFP provides only \$20 million for operations, maintenance, and roads renewals for the next 10 years period. Compared with the estimated available and required funds to renew and upgrade of existing asset it will take more than 20 years to complete all Condition 5 road projects.

Figure 1.1 is a copy of *Figure 3.3.1: Projected and LTFP Budgeted Renewal Expenditure* inserted from the AM Plan showing the projected renewals expenditure over the 20 years of the AM Plan

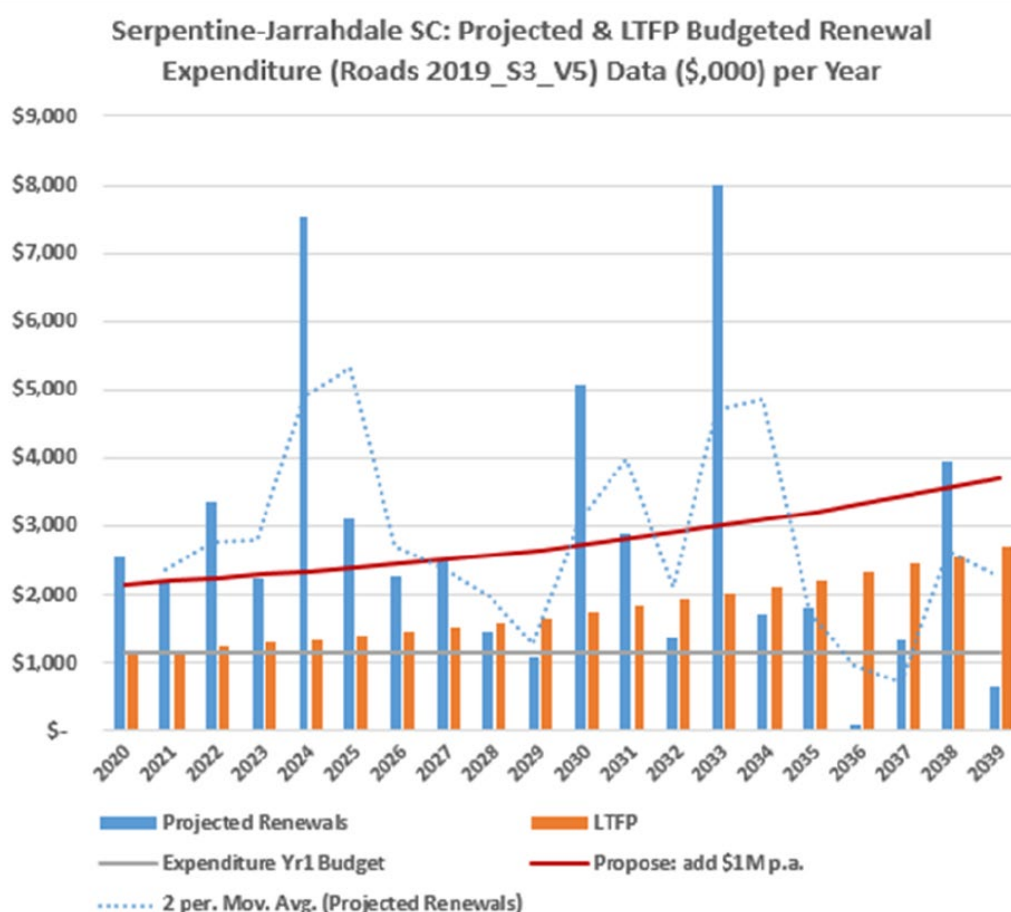


Figure 1.1 - Projected and LTFP Budgeted Renewal Expenditure 2019

The new Roads Condition Survey was completed in 2023, and it is now time to renew the AM Plan 2019 to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Shire's LTFP.

1.1.4. Roads Condition Survey 2023

The condition assessment involved a visual inspection of the entire road network to record defects such as poor surface texture, rutting, cracking, and potholing. In addition, the pavement strength was tested on higher order hierarchical roads using a falling weight deflectometer.

A comprehensive surface condition assessment of roads more than 10 years old was completed in 2022/23. There are 154km unsealed roads (formed or unbuilt) and were not included in the surface condition assessment

The condition assessment is measured using WALGA's 1 – 5 grading system with condition grading 1 to 2 being Very Good to Good, 3 being Fair and 4 to 5 being Poor to Very Poor.

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

Table 1.1 - Simple Condition Grading Model

The condition survey of the Shire's sealed road network completed at 2805 road sites, and table below demonstrates the pavement condition in according to Condition Grading.

Number of Inspected Sites	Condition 1 Very Good	Condition 2 Good	Condition 3 Fair	Condition 4 Poor	Condition 5 Very Poor
2805	224	645	813	617	505
%	8%	23%	29%	22%	18%

Table 1.2 - Summary of road condition survey

From the above table it can be seen that most of the assets have reached the intervention level of condition 3, 4, and 5. Whilst the 31% of road assets may offer a

level of service in that is in good condition and it will be trafficable, it may be subject to load restrictions, lower speed restrictions and compromised user safety.

1.1.5. Community Perception Survey – November 2022

The Community Perceptions Survey allows Council to receive an overview of the organisations performance in service delivery and provides Council with further input from the community to consider in the delivery of the Strategic Community Plan and annual budgets.

In September 2022 Shire Officers engaged the service of Catalyse Pty Ltd to undertake the 2022 community perceptions survey in line with the requirements of Council Policy 1.3.4 Community Perception Survey.

The community perception survey sought to:

- Measure overall perceptions of the Shire of Serpentine Jarrahdale
- Evaluate community perceptions of selected services and facilities
- Identify community priorities
- Determine whether perceptions differ across the community (by selected geo-demographics such as age, gender, where they live, etc.); and whether these differences are statistically significant.

Through the 2022 Community Perception Survey results, building and maintaining local roads were identified as priorities by the community.

Figure 1.2 is a copy of Community Priorities inserted from the Community Perception Survey 2022 showing the Community driven actions and Community Voices.

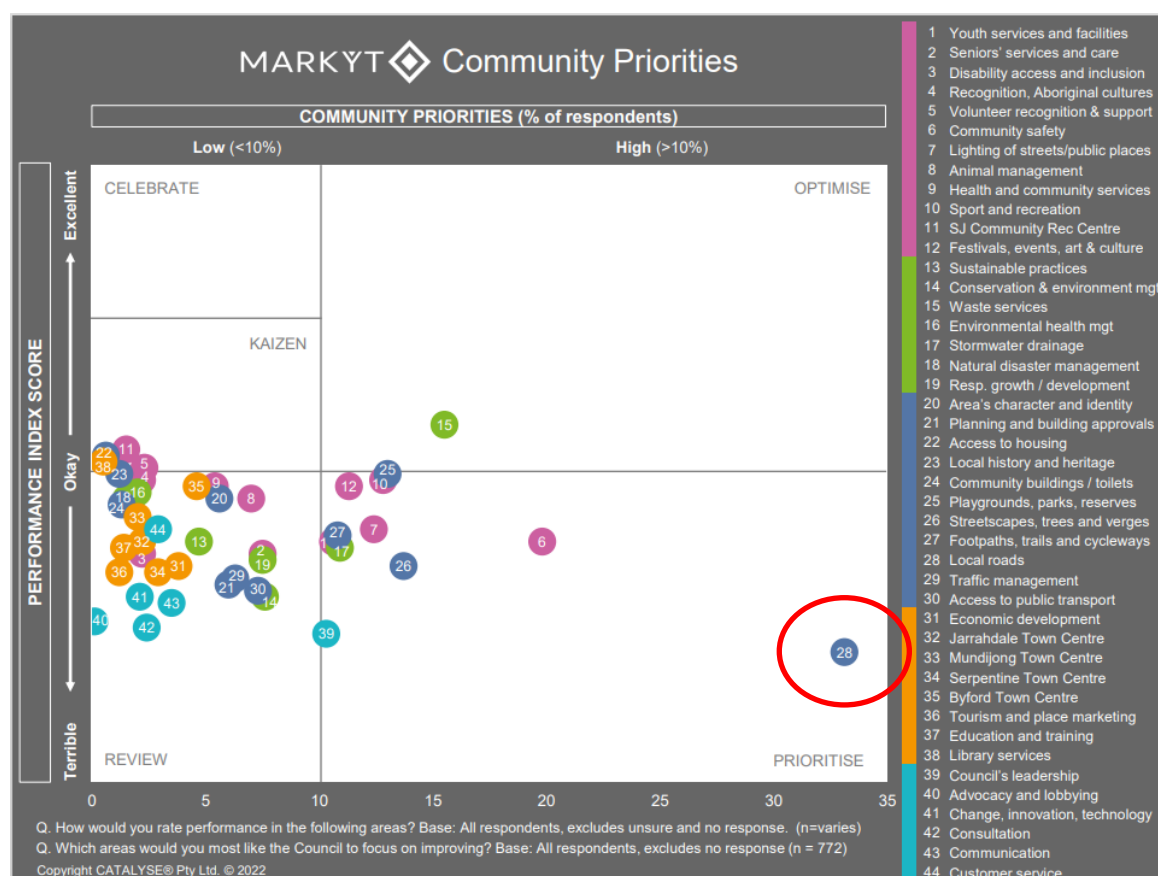


Figure 1.2 - Community Priorities

2. Methodology

Based on the Shire's current Strategies and Plans, and Main Roads Western Australia traffic related data information such as traffic volume, crash history and future network planning information, the following methodology was adopted to create the FRWP:

- **Identification of infrastructure renewal needs** - Review of the Visual Inspection Road Condition Data completed in 2023 and identified through an ongoing planning process focusing on ten-year and beyond timeframes.
- **Project definition** - Including the initial scoping of the project.
- **Business Planning** - Involved the development of a business case or justification of the project considering capital costs, funding sources (the role of the Shire).
- **Funding method resource allocation** - Determine funding methods, which may involve government grants and opportunities for public-private partnerships.

3. Project Identification and Priorities

3.1 Road Condition Grading

Road condition grading and other multiple constraints were applied to develop projects and form the RFWP. Sites have been identified from a comprehensive surface condition assessment of roads less than 10 years old completed in the 2022/23 financial year.

The condition assessment involved a visual inspection of the sealed roads to record defects such as poor surface texture, rutting, cracking, and potholing. In addition, the pavement strength was tested on higher order hierarchical roads using a falling weight deflectometer.

The RFWP considered only roads rated condition 4 & 5, where the Condition 5 was analysed in detail and projects were defined. 105 kilometers of 110 roads have been analysed and 132 project, which make up this RFWP, have been developed.

The table below shows a summary of roads and projects by Condition 4 & 5 Grading

Number of Inspected Sites	Condition 1 Very Good	Condition 2 Good	Condition 3 Fair	Condition 4 Poor	Condition 5 Very Poor
2805	224	645	813	617	505
%	8%	23%	29%	22%	18%
KM of Roads				173KM	105KM
Number of Roads				220	114
Number of Projects				284	135

Table 3.1 - Summary of roads and projects by condition grading

3.2 Multiple Criteria Measure and Weighting

A process which applies multiple constraints and criteria was used to prioritise roads and form the RFWP from 132 roads identified with a condition rating 5. The following criteria have been developed to facilitate the prioritisation of the roads, based on an associated scoring system. These prioritisation criteria apply to the RFWP implementation budget only.

The road condition, financial capacity and other multiple constraints and criteria were used to develop the Roads Forward Works Plan and prioritisation of projects within plan.

Road renewal plans face numerous constraints and require careful consideration of various criteria. Constraints can include budget limitations, traffic flow disruptions, community concerns, and regulatory requirements. Criteria for evaluating renewal options should encompass economic, environmental, social, and technical factors, including road condition, traffic volume, maintenance costs, and potential impacts on road users.

Infrastructure Australia, Guide to multi-criteria analysis used to develop the Shire's constraints and criteria to prioritise roads and form the RFWP from 132 roads identified with a condition rating 5.

The following principles applied for the criteria:

1. What is the data telling us?
 - a. Condition of roads.
 - b. Shire Community Perceptions Survey, what community needs.
2. Strategic guidance
 - a. To ensure that project prioritisation within RFWP is realistic and aligns with the current SJ strategic Plans and Strategy.
3. Federal and State funding criteria related to the Road Hierarchy
 - a. More than 80% of the SJ network are Access roads which do not meet minimum criteria for external funding eligibility.

The following criteria were measured and weighted:

- **Strategic Fit** – Priority is given to roads/projects align with the Shire's Strategic Community Plan 2017/27 and other Structure Plans. The Strategic Fit criteria are detailed within Figures provided in Appendix A. Projects that have already been scheduled for completion are not considered by RFWP
- **Road Hierarchy** – Priority is given to the Higher order Street and Avenue type Roads per the Metropolitan Regional Road Hierarchy, where their classification and vehicle volumes provide eligibility for State Government funding, as opposed to local access roads which do not meet minimum criteria for external funding eligibility.
- **Social Impact** – An impact of traffic volume, use of public transport, opportunity to walking and cycling and improvement in road safety were measure and weighted to select the projects. Location of the education and school centers, bus routes through the Shire's Road network are detailed within Figures provided in Appendix B.

- **Funding Opportunity** - Funding Opportunity/Strategy and the sources from the Shire may receive funds have been considered as a decisive factor to develop and list the projects. Priority is given to the project which are meeting a minimum criterion to receive the Federal Funding that did not require the Shire's contribution.
- **Handover to MRWA** - MRWA undertaking classification assessment of some Shire's roads to become a State Road, and these roads have been considered as a low priority.

The table below indicates the criteria, how it is measured and weighted.

Criteria	Measure	Weighing
Strategic Fit	Roads/projects align with Strategic Community Plan 2017/27 and Shire's Structure Plans	1
	Roads prioritised with AMP	1
Road Hierarchy	<i>Street / Avenue</i>	2
	<i>Roads / Drive</i>	1
	<i>Close / Lane / Way / Place</i>	0
Roads Condition	<i>One line score 2.1-3</i>	-1
	<i>One line score <2</i>	-2
Societal Impact	Reduction of the traffic accidents	
	<i>Crash Criteria <3 crashes</i>	1
	<i>Crash Criteria >3 crashes</i>	2
	Traffic volume - High-capacity traffic movements between industrial, commercial, and residential area	1
	Public Transport/Bus Route - Does the project have a significant benefit for public transport through the provision of supported infrastructure improvements	1
	Walking - Does the project make specific exclusive provision for pedestrians to improve accessibility and safety (school, recreation, leisure, shopping)	1
	Cycling -Does the project make specific exclusive provision for cycling to improve accessibility and safety	1
	Street Lighting – Improve safety	1
	Road Safety - proposed improvements are intended to address future safety performance	
	<i>Full Reconstruction</i>	4
	<i>Sholder Widening and Repairing</i>	3
Funding Opportunity	State Funding - MRRG Programs & RTR	1
	Federal Funding – FBS	2
Handover to MRWA	Negative point to roads which will be handed over to MRWA in the future	-2

Table 3.2 - Multiple Criteria and Measure

3.3 Financial Capacity

A detailed RFWP has been prepared for the Shire, which is based on a balanced budget approach and the following assumptions:

- Proposed Budget Allocation from the Shire's LTFP to remain constant beyond 2039.

Proposed additional annual budget allocation from LTFP of 2% municipal funding from rates (approximately \$640,000 in 2024/25) to increase roads upgrade budget by approximately \$2Mil per year from 2026/27 to complete renewal of the Score 5 projects by 2041 (\$640,000 municipal funds enables funding contribution of \$1,280,000 on 1/3 Shire, 2/3 State government basis).

- Metropolitan Regional Road Group (MRRG) Grant for Roads Safety Program, Road Rehabilitation and Road Improvement Program increase by 3% per annum.
- \$2.0M/year for MRRG funded projects based on 2/3 State Government and 1/3 Shire contribution of \$1.33Mil and \$0.66Mil respectively approved for the projects meeting MRRG minimum criteria for funding.
- MRRG Direct Grant will be continuing in the future with an increase of 3% per year.
- Roads to Recovery Grant to remain constant beyond 2028/29, and funding increase by 0.5% per annum.

Funding Sources Opportunity	Max Project Cost / Annual Allocation (\$000)	NOTES
MRRG State Black Spot	3,000	Project need to be nominated and approved by MRWA
MRRG Federal Black Spot	2,000	
MRRG Road Improvement	12,000 - 4,000/year	
MRRG Road Rehabilitation	950/year	
MRRG Direct Grant	400/year	Allocation must be fully expended on roads
Roads to Recovery - RTR	1,200/year	Allocation to remain constant beyond 2028/29
Shire's Long Term Financial Plan	2,455/year	Allocation to remain constant beyond 2039

Table 3.3 - Funding Sources Opportunity

3.3.1 Local Government Road Funding Program

As part of the Local Government Road Funding Program, the Australian Government is making funding available through the Road Safety Program (Black Spot Program),

Road Rehabilitation and Road Improvement Program (MRRG Program) and Commodity Routes Fund Program to deliver road safety upgrades and improvements.

Main Roads Western Australia (MRWA) and Local Government work together to develop and manage the Western Australian Road network to meet the needs of the community.

The State Road Funds to Local Government Agreement (SRFLG) provides funds for the above programs detailing requirements in relation to aspects of administering, distributing, and accounting for the allocation and expenditure of funds.

In accordance with the SRFLG Procedures the funding is provided on a cost sharing basis of LGs contributing \$1 for every \$2 from the Road Project Grant funds. SRFLG provides the guidelines, which include the eligibility criteria for funding under the program, the project nomination and approval process and the program administration arrangements.

To receive the Local Government Road Funding a selected project must be prepared and submitted to Main Roads Western Australia for their assessment and approval all in accordance MRRG Guideline and proposed time schedule.

Sixteen Shire roads and thirty-one projects that Scored 5 under the road condition survey meet the MRRG minimum criteria for the State or Federal funding and are listed in Table 3.3.1 below.

The FRWP for the projects that can receive the Local Government Funding are detailed within Figure 3.6 provided in Appendix C.

#	Roads Name	PROJECT	Project Cost
1	Paterson Street	Paterson Street - Richardson St to Keirnan St	575,000
2	Rapids Road	Rapids Road - Gull Road to Karnup Rd	1,507,000
3	Soldiers Road	Soldiers Road - Mead St to Turner Rd	389,000
		Soldiers Road -Daisy Rd to Pinebrook Rd	486,000
		Soldiers Road - Intersection of Soldiers Rd and Bishop Rd	184,000
4	Beenyup Road	Beenyup Road - Catherine St to the end	636,000
5	Briggs Road	Briggs Road - Larsen Rd to Thomas Rd	330,000
6	Jarrahdale Road	Jarrahdale Road - from 120m North of Armstrong Rd to Millars Rd	1,698,000
		Jarrahdale Road - from SLK1.05 to Medulla Rd	1,150,000
7	Richardson Street	Richardson Street - Paterson St to Adams St	713,000
8	Hopkinson Road	Hopkinson Road - Leaver Way to Orton Rd	184,000
		Hopkinson Road - Kellet Drive to Gloaming Way	194,000

#	Roads Name	PROJECT	Project Cost
		Hopkinson Road - Devon Ct to Thomas Rd	684,000
		Hopkinson Road - Rowley Rd bends to 80m South of Empire Rose Ct	726,000
9	Mundijong Road	Mundijong Road - Lightbody Rd to King Rd	1,742,000
	Karnup Road	Karnup Road - From #653 to Yangedi Rd	781,000
		Karnup Road -Kiely Lane to River Rd	1,190,000
	Karnup Road	Karnup Road - From SLK4.45 to SLK5.12	701,000
10		Karnup Road -Lingdon Lane to Hopeland Rd	1,410,000
11	Castle Road	Castle Road - South Western Hwy to Summerfield Rd	417,000
12	King Road	King Road - From #228 to Orton Rd	239,000
		Nettleton Road - Hella Kipper Dr to Wollombi Rd	2,022,000
		Nettleton Rd - Barge Dr to Admiral Rd S	1,040,000
		Nettleton Rd - Old Brick Rd to Homestead Pl	184,000
		Nettleton Rd - Philips Rd to SLK4.90	300,000
13	Nettleton Road	Nettleton Rd - South Western Hwy to Dougall St	341,000
14	Orton Road	Orton Road - Casuarina Rd to Tunney Road	380,000
15	Summerfield Road	Summerfield Road -Richardson St to Gladstone Rd	834,000
		Kingsbury Drive - Scarp Rd S to Scarp Rd N	1,100,000
		Kingsbury Drive - Scarp Rd to Spencer Rd	1,297,000
16	Kingsbury Drive	Kingsbury Drive - Spencer Rd to Myara Dr	1,943,000
			\$25,377,000
Line marking by MRWA 10%:			\$2,537,700
Drainage (design required) 20%:			\$5,075,400
			<u>\$33,000,000</u>

Table 3.3.1 - Roads and Projects Eligible for the Local Government Road Funding

3.3.2 Other Funding Sources

As part of the Local Government Road Funding Program, the Australian Government is making funding available through Direct Grant as an annual allocation to Local Governments for roads projects. The current allocation is \$400,000 per year, and it is assumed that the grant will be continuing in the future with an increase of 3% per year.

The Roads to Recovery (RTR) Program, funded by the Australian Government supports the construction and maintenance of the local road infrastructure assets. RTR is an ongoing program that operates on a five-year funding period, providing a stable and predictable source of funding, with funding recipients able to decide on the roads projects that deliver on local priorities throughout the funding period.

From 1 July 2024, a new RTR five-year funding period commenced, and Shire's allocation is over 1.2M per year until 2029. It is assumed that the program will be continuing after 2029 with increased funding of 0.5% per year.

The current Shire's LTFP proposes municipal fund of over 1.5M per year with a 4% increase every subsequent year. LTFP allocations are detailed within Figure 3.7 provided in Appendix D.

Although not guaranteed, \$950K per year is available to apply annually through the MRRG Rehabilitation Program, subject to eligibility criteria; a 3% annual increase is applied.

Available fund per annual allocation listed in Table 3.3.2

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	Total
Without 2%											
Muni Road Funding	1,594,096	2,503,829	2,018,134	2,168,366	2,619,022	3,347,812	3,903,456	4,835,012	5,519,906	6,282,409	34,792,042
Total Muni Funding	1,594,096	2,503,829	2,018,134	2,168,366	2,619,022	3,347,812	3,903,456	4,835,012	5,519,906	6,282,409	34,792,042
ads to Recovery	1,017,921	1,208,781	1,272,401	1,272,401	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,771,504
Total Road Works	5,800,209	8,720,268	7,326,803	7,777,499	8,857,066	11,043,436	12,710,368	15,505,036	17,559,718	19,847,227	115,147,630

Table 3.3.2 - Funding Sources - LTFP, MRRG Direct Grant & RTR allocation

It was estimated that the Shire requires more than \$80 million to complete the other 100 projects on 94 Access roads and \$15 million to make 1/3 MRRG contribution to MRRG funded project which rated 5 in the road condition survey, and it will take up to 10 years to complete the program.

It is recommended that Shire review the LTFP and proposed budget allocation for roads renewal be increased by 2 million per year starting from 2026/27 financial year to complete the program earlier. Under this model it will take 7-8 years to complete all projects which rated 5 in the road condition survey.

The recommended model showing increased Municipal Fund listed in the Table 3.3.3

	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	Total
With 2%											
Road Reserve	647,479	694,000	740,000	-	-	-	-	-	-	-	
Muni Road Funding	1,594,096	3,181,815	3,448,120	4,432,352	4,986,008	5,822,798	6,490,441	7,538,997	8,347,891	9,238,393	55,080,911
Total Muni Funding	2,241,575	3,875,815	4,188,120	4,432,352	4,986,008	5,822,798	6,490,441	7,538,997	8,347,891	9,238,393	57,162,390
Roads to Recovery	1,017,921	1,208,781	1,272,401	1,272,401	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	10,771,504
Total Road Works	7,742,646	12,836,226	13,836,761	14,569,457	15,958,024	18,468,394	20,471,323	23,616,991	26,043,673	28,715,179	182,258,674
Potential Additional Road Works	1,942,437	4,115,958	6,509,958	6,791,958	7,100,958	7,424,958	7,760,955	8,111,955	8,483,955	8,867,952	67,111,044

Table 3.3.3 - Funding Sources – with additional \$2m

Access roads classified under MRWA hierarchy classification do not qualify for the MRRG Road Rehabilitation Program. The funding sources such as Municipal Fund, MRRG Direct Grant and RTR allocation have been considered to fund these projects.

The projects under condition rating 5, which will be funded through these sources are detailed in Figure 3.8 Appendix E. The condition 4 projects are presented in Figure 3.9 Appendix E.

3.4. Details of Individual Projects

Details of individual project included in RFWP have been prepared and the following information is provided:

- Purpose of the project, including information on the costing, whether the project involves recurrent expenditure for renewal of infrastructure.
- Background on the project and site information.
- Breakdown of funding sources and amount of funding for each out year, including

where Council has identified the Shire's Fund as a funding source.

Due to the uncompleted design for the projects, the Renewal Cost does not include costing for:

- Required drainage work.
- Clearing vegetation and possible offset cost.
- Risk management assessment of each project, including an analysis that addresses scenarios where one or more funding sources for a project are reduced, not available or delayed.

The project details, including the site details, proposal and estimate can be viewed on this link [J:\Engineering\JadrankaProjects](#).

4. Level of Service and Risk Management

4.1. Level of Service

Service levels have been defined in two terms Community Levels of Service and Technical Levels of Service.

Community Levels of Service is a measurable target which determines the type and extent of services delivered to the Community. Road Infrastructure levels are measured internally and by the community to determine adequate provision. The following findings have been drawn from the community perceptions survey that was completed in 2022. Community satisfaction for the Shire's Road condition and maintenance service is low, with 21% of those surveyed either terrible or poor.

- Performance index for Management and control of traffic is also low with only 33% the number one concern for both residents and businesses.
- Existing controls and expenditure to mitigate risk are considered not adequate and need to be priorities the limited resources available to meet the needs of a growing population.

Technical Levels of Service supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Shire undertakes to best achieve the desired community outcomes and demonstrate effective performance.

Technical service measures are linked to annual budgets allocation and the activities that return the service capability of an asset up to that which it had originally (frequency and cost of road resurfacing and pavement reconstruction).

The key messages regarding the Level of Services that came from available references to form the RFWP are summarised below:

- Shire did not have enough funding to renewing of road assets at the end of their useful life and maintaining existing road network assets to ensure consistent service delivery.
- Currently only 29% of road surface has reached the renewal intervention level of condition 3 (Fair).
- The higher risk rated assets 40% (condition 4 & 5) that is almost the leading factors to accidents and unsafe environment.

4.2. Risk Management

In 2015 the Council endorsed the Shire's Strategic Risk Register and revised Council Policy Risk Management (OCM281/09/20) in which all operational and strategic risks are captured, rated, and monitored based on their level of risk.

These are important achievements towards improving the risk management processes at the Shire as they provide a mechanism for Shire executives to manage risk at a strategic level and an avenue for the Committee and Council to monitor strategic risk through quarterly reporting.

A key strategic risk identified on the Shire's Strategic Risk Register is that the Shire does not implement Asset Lifecycle Management to obtain quality long- term asset life. Actions such as Roads Asset Condition Survey and Roads Renewal Program identified by Shire's Asset Management Strategy (AMS) for inclusion in LTFP, have been completed and AMP and LTFP need to be revised to achieve the objectives of the AMS.

Moreover, there are currently Significant Risks associated with Unclear level of service/community need, and Asset life cycle cost are not budgeted, rated as a

Moderate risk within the Risk Register that need to be reviewed and rated to appropriate level of risk.

Further information on these risks, including their ratings, control and mitigation strategies are detailed on Appendix F - Figure 4.1.

5. Monitoring

This FRWP will be a reference document to the Asset Management Working Group and Infrastructure Service to assist in management of the Shire's infrastructure assets.

RFWP is a program of roads capital projects anticipated to be undertaken by the Council in the future. The plan will be reviewed during annual budget planning processes and amended to recognise any changes in service levels and/or resources available to provide those services as a result of budget decisions.

Further assets improvements identified by FRWP will enhance future revisions of the finance strategy that will provide greater financial alignment with the LTFP.

6. Appendices

Appendix A - Figure 3.1 & Figure 3.2

Appendix B - Figure 3.3, Figure 3.4 & Figure 3.5

Appendix C - Figure 3.6

Appendix D - Figure 3.7

Appendix E - Figure 3.8 & Figure 3.9

Appendix F - Figure 4.1

Appendix A - Figure 3.1 & Figure 3.2

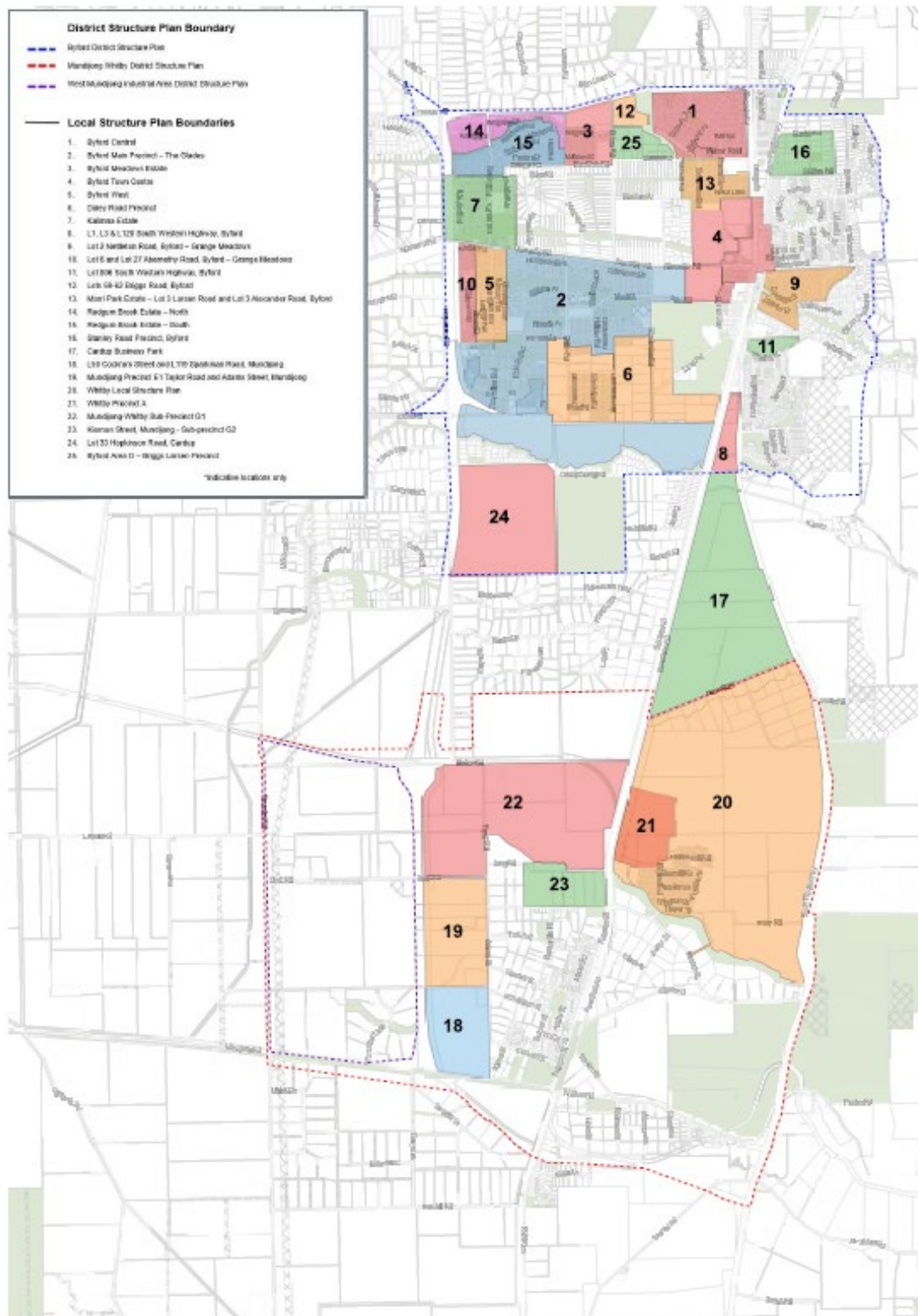





Figure 3.1 – Shire of Serpentine Jarrahdale Structure Plan Key Map 2024

District Structure Plan Boundary

-  Byford District Structure Plan
-  Mundijong Whitby District Structure Plan
-  West Mundijong Industrial Area District Structure Plan

Local Structure Plan Boundaries

1. Byford Central
2. Byford Main Precinct – The Glades
3. Byford Meadows Estate
4. Byford Town Centre
5. Byford West
6. Doley Road Precinct
7. Kalimna Estate
8. L1, L3 & L128 South Western Highway, Byford
9. Lot 2 Nettleton Road, Byford – Grange Meadows
10. Lot 6 and Lot 27 Abernethy Road, Byford – Grange Meadows
11. Lot 806 South Western Highway, Byford
12. Lots 59-62 Briggs Road, Byford
13. Marri Park Estate – Lot 3 Larsen Road and Lot 3 Alexander Road, Byford
14. Redgum Brook Estate – North
15. Redgum Brook Estate – South
16. Stanley Road Precinct, Byford
17. Cardup Business Park
18. L50 Cockram Street and L119 Sparkman Road, Mundijong
19. Mundijong Precinct E1 Taylor Road and Adams Street, Mundijong
20. Whitby Local Structure Plan
21. Whitby Precinct A
22. Mundijong-Whitby Sub-Precinct G1
23. Kieman Street, Mundijong - Sub-precinct G2
24. Lot 33 Hopkinson Road, Cardup
25. Byford Area D – Briggs Larsen Precinct

*Indicative locations only

The detail of each structure plan is available for download under their respective headings using the link <https://www.sishire.wa.gov.au/development-services/planning/planning-on-multiple-lots/structure-plans.aspx>

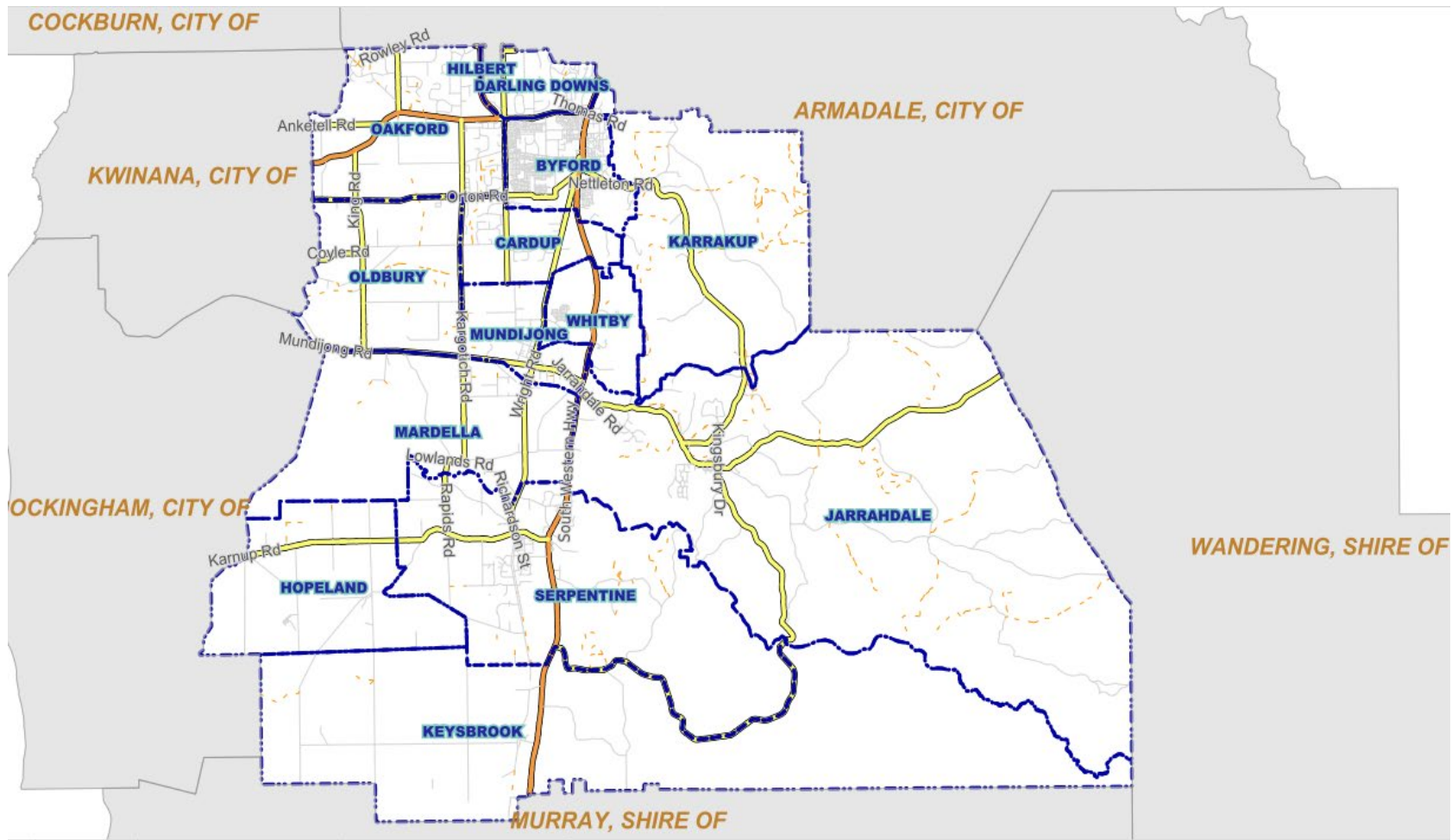


Figure 3.2 – Shire's Strategic Road Network

Priority is given to the roads that provides connectivity with the wider region and expands access to development, employment, and education opportunities.

Appendix B - Figure 3.3, Figure 3.4 & Figure 3.5

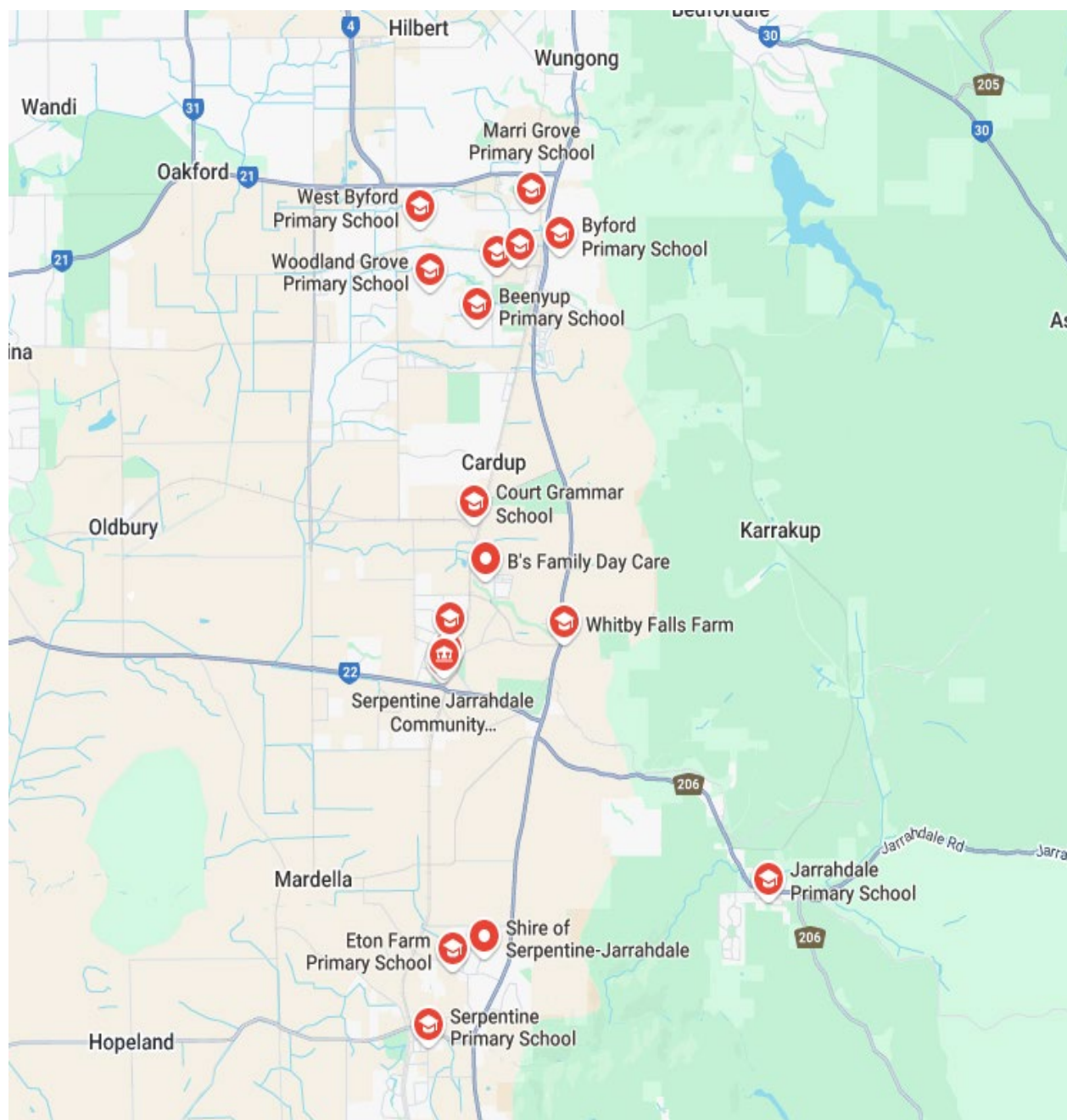
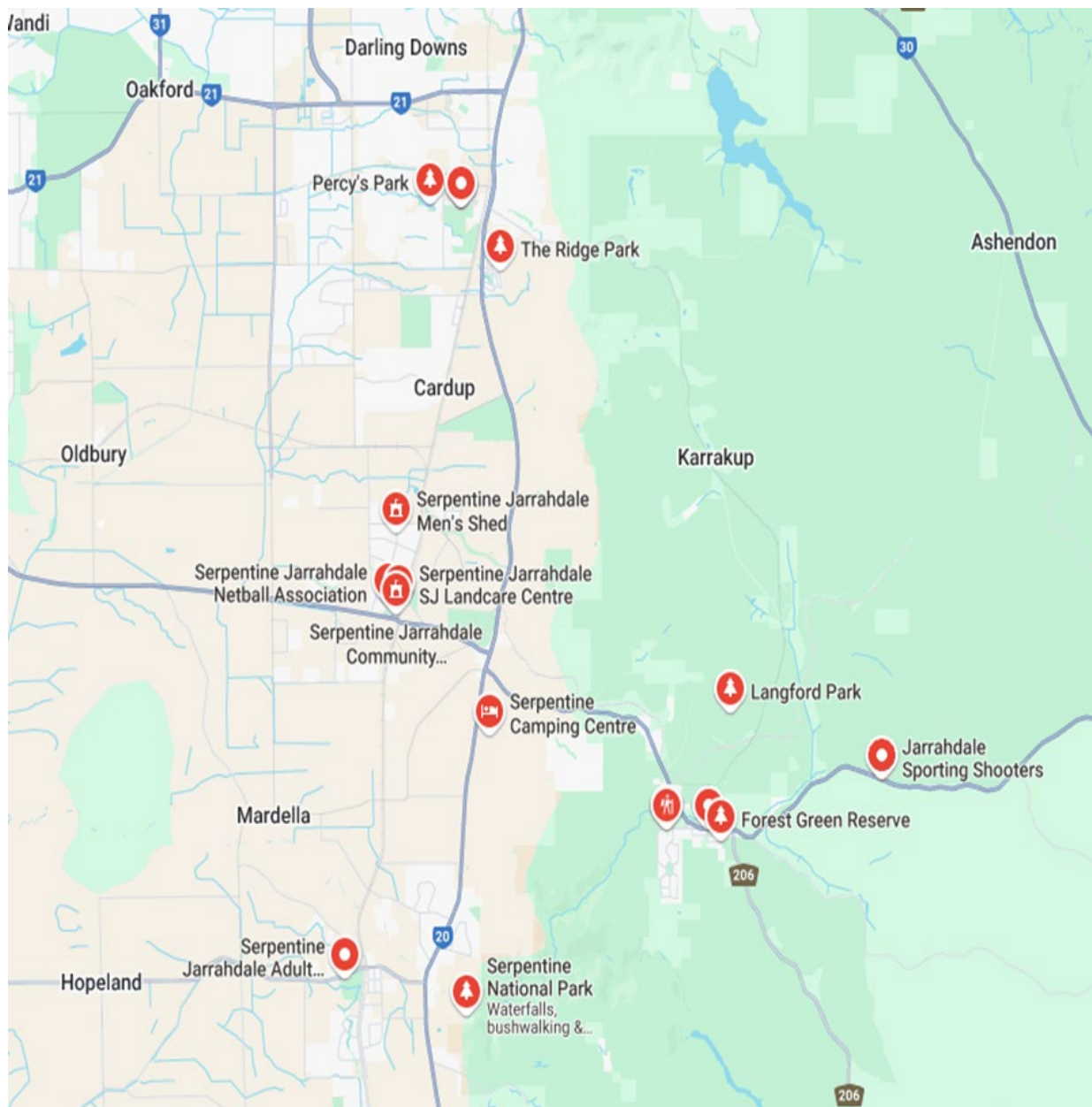


Figure 3.3 - Education and school place's locations



Figures 3.4 - Community and sport activities place's locations

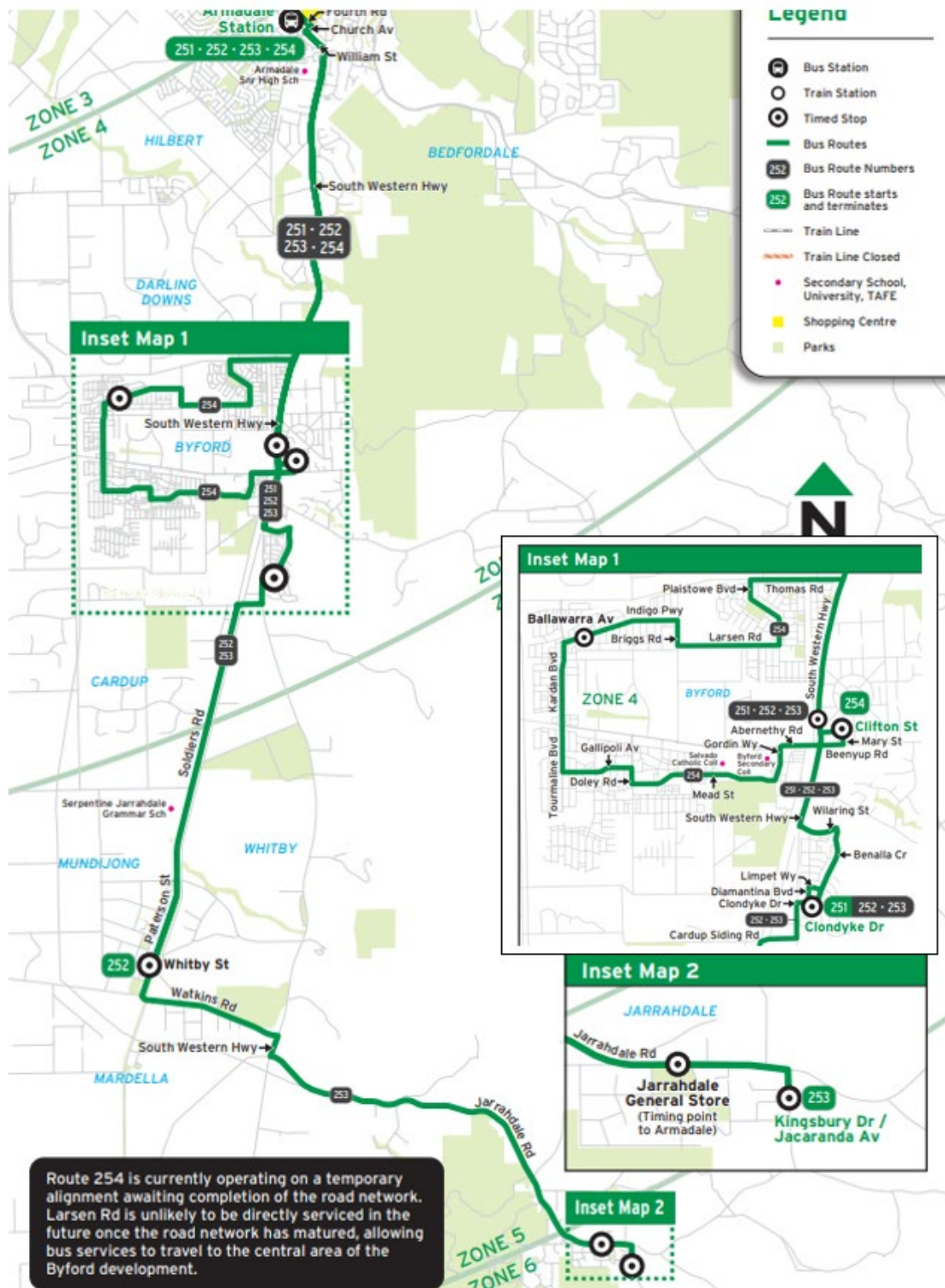


Figure 3.5 – Bus Route

Appendix C - Figure 3.6

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Funding Sources		Year/Priority
							Muni 1/3 contribution	MRRG - 2/3 contribution	
1	Paterson Street, Mundijong	Paterson Street - Richardson St to Keirnan St Mill and overlay 30mm thick 10/75 DGA & some kerb replacement	0.77	2.00	1.23	575,000	191,667	383,333	2026/27
2	Rapids Road, Serpentine	Rapids Road - Gull Road to Karnup Rd Reseal and stabilisation	1.07	2.99	1.92	1,507,000	502,333	1,004,667	2026/37
3	Soldiers Road, Byford	Soldiers Road - Mead St to Turner Rd Mill and Overlay 30mm thick 10/75 DGA	0.4	0.72	0.32	389,000	129,667	259,333	2027/28
4		Soldiers Road -Daisy Rd to Pinebrook Rd Mill and Overlay 30mm thick 10/75 DGA & some kerb replacement	2.10	2.58	0.48	486,000	162,000	324,000	2027/28
5		Soldiers Road - Intersection of Soldiers Rd and Bishop Rd Mill and Overlay 30mm thick 10/75 DGA	5.25	5.36	0.11	184,000	61,333	122,667	2027/28
6	Beenyup Road, Byford	Beenyup Road - Catherine St to the end Mill and Overlay 30mm thick 10/75 DGA, kerb replacement & drainage work	0.52	1.15	0.63	636,000	212,000	424,000	2027/28
7	Briggs Road, Byford	Larsen Rd to Thomas Rd Mill and Overlay 30mm thick 10/75 DGA & shoulder repair	0.90	1.25	0.35	330,000	110,000	220,000	2027/28

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Funding Sources		Year/Priority
							Muni 1/3 contribution	MRRG - 2/3 contribution	
8	Jarrahdale Road, Jarrahdale	Jarrahdale Road - from 120m North of Amstrong Rd to Millars Rd Reseal, stabilisation and shoulder repairs	5.71	6.87	1.16	1,698,000	566,000	1,132,000	2028/29
9		Jarrahdale Road - from SLK1.05 to Medulla Rd Reseal, stabilisation and shoulder repairs	1.05	2.31	1.26	1,150,000	383,333	766,667	2029/30
10	Richardson Street, Mundijong	Richardson Street - Paterson St to Adams St Mill and overlay 30mm thick 10/75 DGA and shoulder repairs	0.14	1.07	0.93	713,000	237,667	475,333	2029/30
11	Hopkinson Road, Oakford	Hopkinson Road - Leaver Way to Orton Rd Reseal and shoulder repairs	3.45	3.68	0.23	184,000	61,333	122,667	2030/31
12	Hopkinson Road, Darling Downs	Hopkinson Road - Kellet Drive to Gloaming Way Reseal and shoulder repairs	7.27	7.52	0.25	194,000	64,667	129,333	2030/31
13	Hopkinson Road, Oakford	Hopkinson Road - Devon Ct to Thomas Rd Reseal and shoulder repairs	5.71	6.87	1.16	684,000	228,000	456,000	2030/31
14	Hopkinson Road, Cardup	Hopkinson Road - Rowley Rd bends to 80m South of Empire Rose Ct Reseal and shoulder repairs	0.03	1.35	1.32	726,000	242,000	484,000	2030/31

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Funding Sources		Year/Priority
							Muni 1/3 contribution	MRRG - 2/3 contribution	
15	Mundijong Road, Oldbury	Mundijong Road - Lightbody Rd to King Rd Reseal and Stabilisation	5.65	7.28	1.63	1,742,000	580,667	1,161,333	2031/32
16	Karnup Road Hopeland,	Karnup Road - From #653 to Yangedi Rd Reseal, stabilisation and shoulder repairs	10.21	11.41	1.20	781,000	260,333	520,667	2032/33
17		Karnup Road -Kiely Lane to River Rd Reseal, stabilisation and shoulder repairs	11.77	13.70	1.93	1,190,000	396,667	793,333	2031/32
18	Karnup Road, Serpentine	Karnup Road - From SLK4.45 to SLK5.12 Reseal, stabilisation and shoulder repairs	4.45	5.12	0.67	701,000	233,667	467,333	2032/33
19		Karnup Road -Lingdon Lane to Hopeland Rd Reseal, stabilisation and shoulder repairs	5.85	8.17	2.32	1,410,000	470,000	940,000	2032/33
20	Castle Road, Serpentine	Castle Road - South Western Hwy to Summerfield Rd Reseal, stabilisation and shoulder repairs	0.00	0.77	0.77	417,000	139,000	278,000	2033/34
21	King Road, Oldbury	King Road - #228 to Orton Rd Reseal, Mill, Overlay 30mm thick 10/75 DGA and shoulder repairs	6.04	6.27	0.23	239,000	79,667	159,333	2031/32
22	Nettleton Road, Karrakup	Nettleton Road - Hella Kipper Dr to Wollombi Rd Reseal and stabilisation	5.56	8.01	2.45	2,022,000	674,000	1,348,000	2034/35

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Funding Sources		Year/Priority
							Muni 1/3 contribution	MRRG - 2/3 contribution	
23	Nettleton Road, Byford	Nettleton Rd - Barge Dr to Admiral Rd S Reseal and stabilisation	2.41	3.48	1.07	1,040,000	346,667	693,333	2033/34
24		Nettleton Rd - Old Brick Rd to Homestead PI Reseal - Spray seal	1.03	1.50	0.47	184,000	61,333	122,667	2033/34
25	Nettleton Road, Karrakup	Nettleton Rd - Philips Rd to SLK4.90 Reseal - Spray seal	3.83	4.90	1.07	300,000	100,000	200,000	2033/34
26	Nettleton Road, Byford	Nettleton Rd - South Western Hwy to Dougall St Mill and Overlay 30mm thick 10/75 DGA & some kerb replacement	0.04	0.32	0.28	341,000	113,667	227,333	2035/36
27	Orton Road, Oakford	Orton Road - Casuarina Rd to Tunney Road Reseal, stabilisation and shoulder repairs	0.00	0.41	0.41	380,000	126,667	253,333	2035/36
28	Summerfield Road, Serpentine	Summerfield Road -Richardson St to Gladstone Rd Reseal, stabilisation and shoulder repairs	2.15	3.50	1.35	834,000	278,000	556,000	2036/37
29	Kingsbury Drive, Serpentine	Kingsbury Drive - Scarp Rd S to Scarp Rd N Reseal, stabilisation and shoulder repairs	2.77	4.01	1.24	1,100,000	366,667	733,333	2035/36
30		Kingsbury Drive - Scarp Rd to Spencer Rd Reseal, stabilisation and shoulder repairs	4.02	5.53	1.51	1,297,000	432,333	864,667	2036/37

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Funding Sources		Year/Priority
							Muni 1/3 contribution	MRRG - 2/3 contribution	
31		Kingsbury Drive - Spencer Rd to Myara Dr Reseal, reconstruction and shoulder repairs	5.53	7.00	1.47	1,943,000	647,667	1,295,333	
Total KM: 312						25,377,000	8,459,000	16,918,000	
Line marking by MRWA 10%:						2,537,700	845,900	1,691,800	
Drainage (design required) 20%:						5,075,400	1,691,800	3,383,600	
TOTAL:						32,990,100	10,996,700	21,993,400	

Figure 3.6 – FRWP for the Score 5 projects that can receive the Local Government Funding Grant Fund

Appendix D - Figure 3.7

Figure 3.7 is a copy of Figure 3.3.1: Projected and LTFP Budgeted Renewal Expenditure inserted from the AM Plan showing the projected renewals expenditure over the 20 years of the AM Plan.



Continued

Attachment 10.2.3.2
Roads Asset Management Plan V5

Projected and LTFP Budgeted Renewals and Financing Shortfall

YEAR	PROJECTED RENEWALS (\$,000)	Current LTFP (\$,000)	Financial GAP (\$,000)	Cumulative (\$,000)	Proposed LTFP Budget add \$1M (\$,000)	Financial GAP (\$,000)	Cumulative (\$,000)
2020	\$ 2,565	\$1,149	-\$1,416	-\$1,416	\$2,149	-\$416	-\$416
2021	\$ 2,171	\$1,195	-\$976	-\$2,393	\$2,195	\$24	-\$393
2022	\$ 3,348	\$1,243	-\$2,105	-\$4,498	\$2,243	-\$1,105	-\$1,498
2023	\$ 2,248	\$1,293	-\$955	-\$5,453	\$2,293	\$45	-\$1,453
2024	\$ 7,538	\$1,345	-\$6,193	-\$11,646	\$2,345	-\$5,193	-\$6,646
2025	\$ 3,121	\$1,399	-\$1,722	-\$13,368	\$2,399	-\$722	-\$7,368
2026	\$ 2,271	\$1,455	-\$816	-\$14,184	\$2,455	\$184	-\$7,184
2027	\$ 2,518	\$1,513	-\$1,005	-\$15,189	\$2,513	-\$5	-\$7,189
2028	\$ 1,465	\$1,574	\$109	-\$15,081	\$2,574	\$1,109	-\$6,081
2029	\$ 1,076	\$1,653	\$577	-\$14,504	\$2,653	\$1,577	-\$4,504
2030	\$ 5,077	\$1,735	-\$3,342	-\$17,846	\$2,735	-\$2,342	-\$6,846
2031	\$ 2,879	\$1,822	-\$1,057	-\$18,903	\$2,822	-\$57	-\$6,903
2032	\$ 1,380	\$1,913	\$533	-\$18,370	\$2,913	\$1,533	-\$5,370
2033	\$ 7,988	\$2,009	-\$5,979	-\$24,349	\$3,009	-\$4,979	-\$10,349
2034	\$ 1,695	\$2,109	\$414	-\$23,935	\$3,109	\$1,414	-\$8,935
2035	\$ 1,814	\$2,215	\$401	-\$23,534	\$3,215	\$1,401	-\$7,534
2036	\$ 82	\$2,326	\$2,244	-\$21,290	\$3,326	\$3,244	-\$4,290
2037	\$ 1,337	\$2,442	\$1,105	-\$20,184	\$3,442	\$2,105	-\$2,184
2038	\$ 3,952	\$2,564	-\$1,388	-\$21,573	\$3,564	-\$388	-\$2,573
2039	\$ 639	\$2,692	\$2,053	-\$19,520	\$3,692	\$3,053	\$480
Total	\$ 61,294	\$35,646	-\$19,520		\$55,646	\$480	

Figure 3.7 –LTFP proposed annual allocation for roads renewal

Appendix E - Figure 3.8

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
1	Turner Road Byford,	Warrington Rd to Soldiers Rd Reseal, reconstruction and shoulder repairs	0.00	1.04	1.04	2,551,000	2026/27	1,278,599	1,272,401	
2	Transit Road, Jarrahdale	South Western Hwy to SLK3.60 Reseal, reconstruction and shoulder repairs	0.00	0.36	0.36	646,000	2026/27	234,401		409,623
3	Abernethy Road, Oakford	Abernethy Road from SLK6.55 to SLK7.75 Reseal, reconstruction and shoulder repairs	6.55	7.75	1.20	1,285,000	2027/28		1,272,401	12,599
4	Abernethy Road, Oakford	Abernethy Road from SLK8.95 to SLK9.96 Reseal, reconstruction and shoulder repairs	8.95	9.60	0.65	745,000	2027/28	335,687		409,313
5	Baskerville Road, Mundijong	Tonkin St to Keirman St Reconstruction, widening, mill and overlay 30mm thick 10/75 DGA	0.42	0.82	0.40	614,000	2027/28	614,000		
6	Adonis Street, Mundijong	Mundijong Rd to Cockram St Mill and overlay 30mm thick 10/75 DGA	0.00	0.23	0.23	215,000	2027/28	215,000		
7	Amy Street, Byford	South Cr to Beenyup Rd Mill and overlay 30mm thick 10/75 DGA	0.00	0.34	0.34	330,000	2027/28	330,000		
8	Anstey Street, Mundijong	Cockram St to Whitby St Mill and overlay 30mm thick 10/75 DGA	0.00	0.25	0.25	223,000	2028/29	223,000		

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
9	Randell Road Mardella,	Kargotich Rd to Ironguard Rd Reseal, reconstruction and shoulder repairs	0.00	1.94	1.94	2,100,000	2028/29	37,687	1,653,000	409,313
10	Cockram Street, Mundijong	Paterson St to the Adonis St Mill and overlay 30mm thick 10/75 DGA,	0.00	0.78	0.78	924,000	2028/29	924,000		
11	Clondyke Drive Byford,	South W Hwy to Burgess Dr Mill and overlay 30mm thick 10/75 DGA	0.00	0.28	0.28	354,000	2028/29	354,000		
12	Warrington Road, Byford	Turner Road to Mead St Reseal, reconstruction and shoulder repairs	0.28	0.92	0.64	1,033,000	2029/30	1,033,000		
13	Wanlis Street, Jarrahdale	Brady Rd to Cousens St Mill and overlay 30mm thick 10/75 DGA	0.00	0.58	0.58	394,000	2029/30	394,000		
14	Wellard Street Serpentine,	Karnup Rd to Lefroy St Mill and overlay 30mm thick 10/75 DGA	0.00	0.38	0.38	450,000	2029/30		450,000	
15	Cousens Street, Jarrahdale	Atkins St to Wanliss St Reseal - Spray seal	0.00	0.15	0.15	323,000	2029/30		323,000	
16	Butcher Street, Mundijong	Richardson St to Livesey St Mill and overlay 30mm thick 10/75 DGA	0.50	0.74	0.24	246,000	2029/30		246,000	
17	Clifton Street, Byford	Mary St to South W Hwy Mill and overlay 30mm thick 10/75 DGA	0.00	0.50	0.50	246,000	2029/30		317,021	- 71,021

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
18	Mary Street, Byford	Beenyup Rd to South Cr Mill and overlay 30mm thick 10/75 DGA	0.00	0.38	0.38	284,000	2029/30			284,000
19	Richardson Street, Mundijong	Anstey St to Roman Rd Mill and overlay 30mm thick 10/75 DGA	0.00	0.30	0.30	231,000	2030/31			231,000
20	Mead Street, Byford	Warrington Rd to Gordin Way Mill and overlay 30mm thick 10/75 DGA	0.95	1.63	0.68	792,000	2030/31	670,822		121,178
21	Utley Road, Hopeland	Rapids Rd to Punrak Rd Reseal, reconstruction and shoulder repairs	3.43	6.56	3.13	2,467,000	2030/31	1,064,178	1,402,822	
22	Mead Street, Byford	Kane Way to Warrington Road Mill and overlay 30mm thick 10/75 DGA	0.35	0.91	0.56	730,000	2031/32	571,963		158,037
23	Rapids Road, Serpentine	Karnup Rd to Utley Rd Reseal - Spray seal	3.09	6.17	3.08	2,723,000	2031/32	1,250,037	1,472,963	
24	Anstey Street, Mundijong	Richardson St to Livestey St Mill and overlay 30mm thick 10/75 DGA	0.52	0.74	0.22	249,000	2031/32			249,000
25	Westcott Road, Keysbrook	Utley Rd to Henderson Rd Reseal, reconstruction and shoulder repairs	0.00	1.22	1.22	966,000	2032/33		966,000	
26	Westcott Road, Keysbrook	Henderson Rd to Elliot Rd Reseal, reconstruction and shoulder repairs	1.22	4.93	3.71	2,770,000	2032/33	1,913,000	857,000	

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
27	Bilya Avenue, Mardella	Tonkin St to Keirman St Mill and overlay 30mm thick 10/75 DGA	0.00	0.58	0.58	516,000	2032/33	516,000		516,000
28	Brown Street Byford,	Helen Cr to Linton St North Mill and overlay 30mm thick 10/75 DGA	0.00	0.19	0.19	192,000	2033/34	192,000		
29	Burrell Street, Byford	Burrell Street - Walters Rd to Brown St Mill and overlay 30mm thick 10/75 DGA	0.00	0.33	0.33	252,000	2032/33	252,000		
30	Clara Street, Byford	Edward Cr to South West Hwy Mill and overlay 30mm thick 10/75 DGA	0.00	0.17	0.17	183,000	2033/34	183,000		
31	Linton Street, Byford	Park Rd to Brown St Mill and overlay 30mm thick 10/75 DGA	0.00	0.32	0.32	325,000	2033/34	325,000		
32	Maxwell Street, Serpentine	Tonkin Rd to Wellard St Reseal - Spray seal	0.00	0.25	0.25	214,000	2033/34			214,000
33	Shelley Street, Byford	Helen Cr to Linton St Mill and overlay 30mm thick 10/75 DGA	0.00	0.17	0.17	183,000	2033/34	183,000		
34	Whitby Street, Mundijong	Anstey St to Paterson St Mill and overlay 30mm thick 10/75 DGA	0.00	0.16	0.16	180,000	2033/34	180,000		
35	Boomerang Roady, Oldbury	Gossage Rd to King Rd Reseal, reconstruction and shoulder repairs	0.05	2.07	2.02	2,305,000	2033/34	681,058	1,623,942	

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
36	Jessie Street, Byford	South West Hwy to Edvard Cr Mill and overlay 30mm thick 10/75 DGA	0.00	0.15	0.15	177,000	2034/35		177,000	
37	Hall Roade, Serpentine	Karnup Rd to Leslie St Reseal, stabilisation and shoulder repairs	1.80	2.51	0.71	385,000	2034/35		385,000	
38	Thatcher Road, Byford	Abernethy Rd to Warburton Mill and overlay 30mm thick 10/75 DGA	0.02	0.33	0.31	302,000	2034/35		302,000	
39	Admiral Road South, Karrakup	Admiral Rd S - Wedgetail Dr to Nettleton Rd Reseal, stabilisation and shoulder repairs	2.50	3.10	0.60	292,000	2034/35		292,000	
40	Dirk Road, Serpentine	South West Hwy to the end Reseal, reconstruction and shoulder repairs	0.00	1.22	1.22	1,614,000	2034/35	1,614,000		
41	Walters Road Byford,	South West Hwy to Lionel St Mill and overlay 30mm thick 10/75 DGA	0.00	0.25	0.25	262,000	2034/35		262,000	
42	Walters Road, Byford	William St to Burrell St Mill and overlay 30mm thick 10/75 DGA	0.25	0.85	0.60	411,000	2034/35			411,000
43	Allanson Drive, Byford	Doley Rd to Sheehan Way Mill and overlay 30mm thick 10/75 DGA	0.00	0.26	0.26	313,000	2034/35		287,139	25,861
44	Blair Road, Oakford	Holmes Rd to Rowley Rd Mill and overlay 30mm thick 10/75 DGA	1.27	2.20	0.93	541,000	2035/36			541,000

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
45	Bournbrook Avenue, Cardup	Gossage Rd to Gallagher Reseal - Spray seal	0.00	0.63	0.63	313,000	2035/36		313,000	
46	Country Drive, Oakford	Rustic Pl to Fieldview Ch Reseal, reconstruction and shoulder repairs	1.59	1.91	0.32	586,000	2035/36	586,000		
47	Kentucky Drive, Darling Downs	Wungong South Rd to end Reseal - Spray seal	0.00	0.42	0.42	265,000	2035/36	265,000		
48	Kentucky Drive West, Darling Downs	Wungong S Rd to the end Reseal - Spray seal	0.00	0.44	0.44	263,000	2035/36	263,000		
49	Craddon Road, Oakford	Ditton Rd to Pantheist Cl Mill and overlay 30mm thick 10/75 DGA	0.00	2.36	2.36	1,460,000	2035/36		1,460,000	
50	Cumming Road, Oakford	Thomas Rd to Orton Rd Mill and overlay 30mm thick 10/75 DGA	0.00	1.73	1.73	1,100,000	2035/36	1,100,000		
51	Coffey Road, Serpentine	Wattle Rd to the end of road Reseal and shoulder repairs	0.00	0.46	0.46	258,000	2036/37		258,000	
52	Davey Road, Mundijong	Mader Rd to the end of cul-de-sac Mill and overlay 30mm thick 10/75 DGA	0.00	0.17	0.17	179,000	2036/37		179,000	
53	Egerton Drive, Serpentine	Bate Rd to the end of cul-de-sac Reseal and shoulder repairs	0.48	0.80	0.32	245,000	2036/37		245,000	
54	Blytheswood Road, Byford	Linton St N to Helen Cress Mill and overlay 30mm thick 10/75 DGA	0.00	0.30	0.30	236,000	2036/37		236,000	

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
55	Bradshaw Road, Byford	Beenyup Rd to the end Mill and overlay 30mm thick 10/75 DGA	0.00	0.41	0.41	293,000	2036/37		293,000	
56	Byford Drive, Byford	Edwards Cr to the end Mill and overlay 30mm thick 10/75 DGA	0.00	0.20	0.20	196,000	2036/37	196,000		
57	Karbro Drive, Cardup	Karbro Drive from the slow point at SLK1.18 Mill and overlay 30mm thick 10/75 DGA	1.18	2.29	1.11	623,000	2036/37		623,000	
58	Barge Drive, Byford	Nettleton Rd to the end Reseal, stabilisation and shoulder repairs	0.00	1.06	1.06	472,000	2036/37	472,000		
59	Livingstone Road, Mardella	Summerfield to the end Reseal, reconstruction and shoulder repairs	0.00	0.36	0.36	476,000	2036/37	476,000		
60	Mader Road, Mundijong	Tonkin St to the end of cul-de-sac Reseal - Spray seal	0.00	0.32	0.32	260,000	2036/37	260,000		
61	Old Brickworks Road, Byford	Beenyup Rd to Bunney Pl Mill and overlay 30mm thick 10/75 DGA	0.00	0.20	0.20	220,000	2036/37			220,000
62	Tunney Road, Oakford	Orton Rd to the end Reseal - Spray seal	0.00	0.36	0.36	243,000	2036/37			243,000
63	South Crescent, Byford	Amy St to Blytheswood Av Reseal - Spray seal	0.18	0.36	0.18	180,000	2037/38	180,000		

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
64	Park Road, Byford	South West Hwy to the end Mill and overlay 30mm thick 10/75 DGA	0.00	1.10	1.10	643,000	2037/38	643,000		
65	Spears Drive, Oakford	Spears Dr from Thomas Rd to the end Reseal - Spray seal	0.65	1.75	1.10	792,000	2037/38	792,000		
66	Swamp Gum Road, Oakford	Spears Dr to Spears Dr Reseal - Spray seal	0.00	0.88	0.88	442,000	2037/38	442,000		
67	Tuart Road, Oakford	Thomas Rd to Anketell Rd Mill and overlay 30mm thick 10/75 DGA	0.67	1.52	0.85	638,000	2037/38	385,000		253,000
68	Devon Close, Oakford	Devon Close from Hopkinson Rd to the end Reseal - Spray seal	0.00	0.44	0.44	263,000	2037/38			263,000
69	Lightbody Road, Mardella	Lightbody Road from Mundijong Rd to SLK 0.35 Reseal - Spray seal	0.00	0.35	0.35	471,000	2037/38	471,000		
70	Rice Road, Oakford	Rice Road from Thomas Rd to the end Reseal - Spray seal	0.00	0.72	0.72	371,000	2037/38		371,000	
71	Leipold Road, Oldbury	Leipold Road from SLK0.99 to Gangemi Rd Reseal, reconstruction and shoulder repairs	0.99	3.29	2.30	1,567,000	2037/38		1,567,000	
72	Lightbody Road, Mardella	Lightbody Road from SLK 1.43 to SLK3.44 Reseal - Spray seal	1.43	3.44	2.01	1,610,000	2038/39		1,610,000	

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
73	Kiln Road, Byford	Kiln Rd #104 to Ranford Rd Reseal, reconstruction and shoulder repairs	1.35	3.40	2.05	2,100,000	2038/39	2,100,000		
74	Scrivener Road, Serpentine	Scrivener Road from South West Hwy to SLK1.30 Reseal, reconstruction and shoulder repairs	0.00	1.30	1.30	980,000	2038/39	464,000		516,000
75	Barratt Place, Oakford	Barratt Place from Foxton Dr to end of cul-de-sac Reseal - Spray seal	0.00	0.22	0.22	165,000	2038/39		165,000	
76	Bullara Rumbl, Jarrahdale	Bullara Rumbl from Jarrahglen Rd to the end Reseal - Spray seal	0.00	0.62	0.62	277,000	2038/39		277,000	
77	Scrivener Road, Serpentine	Scrivener Road from SLK1.40 to Firms Rd Reseal, reconstruction and shoulder repairs	1.40	2.35	0.95	804,000	2039/40		804,000	
78	Wungong South Road, Darling Downs	Wungong South Road from SLK0.00 to Winx Av Reseal and Stabilisation	0.00	1.59	1.59	1,278,000	2039/40		1,278,000	
79	Shanley Road, Mardella	Coogly Rd to South W Hwy Reseal, reconstruction and shoulder repairs	0.60	4.10	3.50	2,960,000	2039/40	2,692,000		268,000
80	Empire Rose Court, Darling Downs	Empire Rose Court from Hopkinson Rd to the end Reseal and shoulder repairs	0.00	0.56	0.56	312,000	2039/40			312,000

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
81	Old Chestnut Lane, Jarrahdale	Old Chestnut Lane from Chestnut Rd to the end Reseal - Spray seal	0.03	1.24	1.21	837,000	2040/41		837,000	
82	Allum Way, Serpentine	Lewis Rd to McKay Dr No239 Reseal - Spray seal	0.00	0.76	0.76	397,000	2040/41		397,000	
83	Hall Rd, Serpentine	Summerfield Rd to the Serpentine Bridge Reseal, reconstruction and shoulder repairs	0.00	0.40	0.40	433,000	2040/41		433,000	
84	Hall Rd, Serpentine	Beacham Rd to Serpentine Bridge Reseal, reconstruction and shoulder repairs	0.00	0.40	0.40	798,000	2040/41		798,000	
85	Dalray Court, Darling Downs	Dalray Court - Dalray Court Reseal and shoulder repairs	0.00	0.56	0.56	287,000	2040/41		287,000	
86	Friesian Close, Oakford	Friesian Close from Kargotich Rd to the end Reseal and shoulder repairs	0.00	0.22	0.22	192,000	2039/40		192,000	
87	Evening Peal Court, Darling Downs	Evening Peal Court from Masters Rd to the end Reseal and shoulder repairs	0.00	0.50	0.50	287,000	2040/41		287,000	
88	Helen Crescent, Byford	Shelley St to Blytheswood Rd Mill and overlay 30mm thick 10/75 DGA	0.00	0.31	0.31	227,000	2040/41		227,000	
89	Hetherington Close, Jarrahdale	Hetherington Close from Medulla Rd to the end Reseal and shoulder repairs	0.00	0.28	0.28	164,000	2040/41	164,000		

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
90	Jarrahglen Rise, Jarrahdale	Jarrahglen Rise from Medulla Rd to the end Reseal and shoulder repairs	0.00	0.67	0.67	295,000	2040/41	295,000		
91	John Court, Byford	Park Rd to Park Rd Mill and overlay 30mm thick 10/75 DGA	0.00	0.32	0.32	260,000	2040/41	260,000		
92	Jones Close, Serpentine	Jones Close from Castle Rd to the end Reseal - Spray seal	0.00	0.21	0.21	140,000	2040/41	140,000		
93	Limousin Place Oakford,	Limousin Place from Byford Meadows Dr to #25 Reseal - Spray seal	0.00	0.40	0.40	256,000	2040/41	256,000		
94	Lord Fury Court, Darling Downs	Lord Fury Court from Master Rd to the end Reseal - Spray seal	0.00	0.38	0.38	247,000	2040/41	247,000		
95	Mathews Close, Serpentine	Mathews Close from Fielder Rd to the end Reseal - Spray seal	0.00	0.21	0.21	188,000	2040/41	188,000		
96	Meadows Way, Oakford	Meadows Way - Meadows Way Reseal - Spray seal	0.00	0.46	0.46	271,000	2040/41	271,000		
97	Millbrook Close, Jarrahdale	Millbrook Close from Medulla Rd to the end Reseal - Spray seal	0.00	0.37	0.37	196,000	2040/41	196,000		
98	Old Dairy Court, Oakford	Old Dairy Court from Spears Dr to SLK0.50 Reseal - Spray seal	0.00	0.50	0.50	287,000	2040/41	287,000		

#	Roads Name	PROJECT	From SLK	To SLK	Length (km)	Project Cost	Year / Priority	Funding Sources		
								LTFP	RTR	Direct Grant
99	Orana Place, Byford	Orana Place from Stanley Rd to the end Mill and overlay 30mm thick 10/75	0.00	0.16	0.16	176,000	2040/41	176,000		
100	Rigoll Court, Mundijong	Rigoll Court from Tonkin St to end Mill and overlay 30mm thick 10/75 DGA	0.00	0.17	0.17	179,000	2040/41	179,000		
101	Simmental Place, Oakford	Simmental PI from Byford Meadows to the end Reseal - Spray seal	0.00	0.32	0.32	230,000	2040/41			230,000
102	Stevenson Place, Byford	Stevenson Place from Brown St to the end Mill and overlay 30mm thick 10/75	0.00	0.19	0.19	205,000	2040/41			205,000
103	Mount Eden Lane, Oakford	Mount Eden Lane - Abernethy Rd to the end Reseal - Spray seal	0.00	0.52	0.52	201,000	2040/41			201,000
104	Wendowie Place, Serpentine	Wendowie Place from Karnup Rd and both cul-de-sac Reseal - Spray seal	0.00	0.19	0.19	195,000	2040/41			195,000
						73.60KM	62,743,000			
						Line marking by MRWA 10%	6,274,300			
						Drainage (design required) 20%	12,548,600			
						TOTAL :	81,565,900			

Figure 3.8 - FRWP for the Score 5 projects that will be funded by Shire's sources (LTFP, RTR, Direct Grant)

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
1	Adams St	Mundijong	Adams St - From SLK0.03 to SLK0.30	0.03	0.30	0.27	313,200
2	Admiral Rd South	Karrakup	Admiral Rd South- From SLK3.00 to SLK3.12	3.00	3.12	0.12	139,200
3	Alcoa Rd	Karrakup	Alcoa Rd - From SLK0.00 to SLK0.95	0.00	0.95	0.95	1,102,000
4	Alice Rd	Cardup	Alice Rd - From SLK0.46 to SLK 0.60	0.46	0.60	0.14	162,400
5	Allanson Dr	Byford	Allanson Dr - FromSLK0.24 to SLK 0.32	0.24	0.32	0.08	92,800
6	Anstey St	Mundijong	Anstey St - From SLK0.05 to SLK0.52	0.05	0.52	0.47	545,200
7	Araucaria Bvd	Byford	Araucaria Bvd - From SLK0.50 to SLK0.54	0.50	0.54	0.04	46,400
8	Armstrong Rd	Jarrahdale	Armstrong Rd -From SLK0.05 to SLK 0.15	0.05	0.15	0.10	116,000
9	Atkins Street	Jarrahdale	Atkins St - From Jarrahdale Rd to Marginata Parade	0.00	0.75	0.75	870,000
10	Baigup Loop	Cardup	Baigup Loop - From SLK 0.35 to SLK 0.85	0.35	0.85	0.50	580,000
11	Balmoral Rd	Jarrahdale	Balmoral Rd - From SLK0.05 to SLK2.65	0.05	2.65	2.60	3,016,000
12	Bambee Ct	Serpentine	Bambee Ct - FromSLK0.00 to SLK0.16	0.00	0.16	0.16	185,600

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
13	Bangap PI	Oakford	Bangap PI - From SLK0.66 to SLK0.82	0.66	0.82	0.16	185,600
14	Banksia Gully Rd	Jarrahdale	Banksia Gully Rd - From SLK0.86 to SLK1.18	0.86	1.18	0.32	371,200
15	Barip PI	Oakford	Barip PI - From SLK0.40 to SLK0.43	0.40	0.43	0.03	34,800
16	Bate Rd	Serpentine	Bate Rd - From SLK0.02 to SLK0.44	0.02	0.44	0.42	487,200
17	Beenyup Rd	Byford	Beenyup Rd - From SLK0.09 to SLK0.50	0.09	0.50	0.41	475,600
		Byford	Beenyup Rd - From SLK1.11 to SLK1.50	1.11	1.50	0.39	452,400
18	Benalla Cr	Byford	Benalla Cr - From SLK0.00 to SLK0.22	0.00	0.22	0.22	255,200
19	Bernborough Way	Darling Downs	Bernborough Way - From SLK0.02 to SLK0.73	0.02	0.73	0.71	823,600
20	Bevis Ct	Byford	Bevis Ct - From SLK0.00 to SLK0.12	0.00	0.12	0.12	139,200
21	Billabong Ct	Serpentine	Billabong Ct - From SLK0.00 to SLK0.05	0.00	0.05	0.05	58,000
22	Bilya Av	Mardella	Bilya Av - From SLK0.50 to SLK0.59	0.50	0.59	0.09	104,400
23	Bishop Rd	Cardup	Bishop Rd - From SLK2.00 to SLK2.10	2.00	2.10	0.10	116,000
		Cardup	Bishop Rd - From SLK3.80 to SLK3.88	3.80	3.88	0.08	92,800
24	Blytheswood Av	Byford	Blytheswood Av - From SLK0.00 to SLK0.30	0.00	0.30	0.30	348,000
25	Bofors Lane	Byford	Bofors Lane - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
26	Boomerang Rd	Oldbury	Boomerang Rd - From SLK0.06 to SLK2.04	0.06	2.04	1.98	2,296,800
27	Bowyer PI	Byford	Bowyer PI - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
28	Boya Lane	Byford	Boya Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
29	Brady Rd	Jarrahdale	Brady Rd - from SLK0.00 to SLK0.14	0.00	0.14	0.14	162,400
30	Briggs Rd	Byford	Briggs Rd - From SLK0.24 to SLK1.70	0.24	1.70	1.46	1,693,600
31	Brockwell PI	Oakford	Brockwell PI - From SLK0.02 to SLK 0.53	0.02	0.53	0.51	591,600
32	Burgess Dr	Byford	Burgess Dr - From SLK0.31 to SLK 0.53	0.31	0.53	0.22	255,200
33	Burgundy Lane	Byford	Burgundy Lane - From Caraway Av to Portwine Av	0.00	0.23	0.23	266,800
34	Butcher St	Mundijong	Butcher St - From SLK0.25 to SLK0.50	0.25	0.50	0.25	290,000
35	Caraway Av	Byford	Caraway Av - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
36	Cardup Siding Rd	Cardup	Cardup Siding Rd - From SLK0.40 to SLK0.59	0.40	0.59	0.19	220,400
		Cardup	Cardup Siding Rd - From SLK1.01 to SLK1.93	1.01	1.93	0.92	1,067,200
37	Carex Walk	Jarrahdale	Carex Walk - From SLK0.01 to SLK0.10	0.01	0.10	0.09	104,400
38	Cavanagh CI	Cardup	Cavanagh CI - From SLK0.02 to SLK0.22	0.02	0.22	0.20	232,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
39	Charolais Ct	Oakford	Charolais Ct - From SLK0.02 to SLK0.27	0.02	0.27	0.25	290,000
40	Chestnut Rd	Jarrahdale	Chestnut Rd - From SLK0.44 to SLK0.67	0.44	0.67	0.23	266,800
41	Chillie Lane	Byford	Chillie Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
42	Coconut Lane	Byford	Coconut Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
43	Colesbrook Dr	Byford	Colesbrook Dr - From SLK0.39 to SLK0.50	0.39	0.50	0.11	127,600
44	Comic Court	Darling Downs	Comic Court - From SLK0.82 to SLK2.15	0.82	2.15	1.33	1,542,800
45	Coogly Rd	Mardella	Coogly Rd - From SLK0.00 to SLK1.34	0.00	1.34	1.34	1,554,400
46	Cook Cl	Jarrahdale	Cook Cl - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
47	Coral Vine Loop	Jarrahdale	Coral Vine Loop - From SLK0.23 to SLK0.67	0.23	0.67	0.44	510,400
48	Coulterhand Cir	Byford	Coulterhand Cir - From SLK0.18 to SLK0.64	0.18	0.64	0.46	533,600
49	Country Dr	Oakford	Country Dr - From SLK1.95 to SLK2.32	1.95	2.32	0.37	429,200
50	Cowara Way	Byford	Cowara Way - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
51	Craddon Rd	Oakford	Craddon Rd - From SLK1.47 to SLK2.34	1.47	2.34	0.87	1,009,200
52	Craghill Way	Oakford	Craghill Way - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
53	Cumming Rd	Oakford	Cumming Rd - From SLK 0.08 to SLK1.71	0.08	1.71	1.63	1,890,800
54	Cunningham Dr	Oakford	Cunningham Dr - From SLK1.39 to SLK1.80	1.39	1.80	0.41	475,600
55	Dagostino Rd	Byford	Dagostino Rd - From SLK 0.20 to SLK0.27	0.20	0.27	0.07	81,200
56	Dalley St	Byford	Dalley St - From SLK0.14 to SLK0.56	0.14	0.56	0.42	487,200
57	Day Rd	Jarrahdale	Day Rd - From SLK0.00 to SLK2.78	0.00	2.78	2.78	3,224,800
58	Devon Ct	Oakford	Devon Ct - From SLK0.31 to SLK0.43	0.31	0.43	0.12	139,200
59	Dowell Lane	Byford	Dowell Lane - From SLK0.20 to SLK0.45	0.20	0.45	0.25	290,000
60	Duckpond Rd (Access)	Oldbury	Duckpond Rd (Access) - From SLK0.00 to SLK0.28	0.00	0.28	0.28	324,800
61	Duckpond Rd	Oldbury	Duckpond Rd - From SLK0.27 to SLK1.64	0.27	1.64	1.37	1,589,200
62	Egerton Dr	Serpentine	Egerton Dr - From SLK 0.02 to SLK 0.31	0.02	0.31	0.29	336,400
63	Elliott Rd	Keysbrook	Elliott Rd - From SLK0.00 to SLK0.52	0.00	0.52	0.52	603,200
		Keysbrook	Elliott Rd - From SLK0.52 to SLK1.07	0.52	1.07	0.55	638,000
		Keysbrook	Elliott Rd SLK1.25 to SLK3.38	1.25	3.38	2.13	2,470,800
		Keysbrook	Elliott Rd - From SLK3.38 to SLK7.45	3.38	7.45	4.07	4,721,200
		Keysbrook	Elliott Rd - From SLK7.45 to SLK10.13	7.45	10.13	2.68	3,108,800

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
64	Empire Rose Ct	Darling Downs	Empire Rose Ct - From SLK0.02 to SLK0.31	0.02	0.31	0.29	336,400
65	Enfield Elb	Byford	Enfield Elb - From SLK0.00 to SLK0.140	0.00	0.14	0.14	162,400
66	Eurythmic Rd	Byford	Eurythmic Rd - From SLK0.32 to SLK0.48	0.32	0.48	0.16	185,600
67	Evening Peel Ct	Darling Downs	Evening Peel Ct - From SLK0.00 to SLK0.50	0.00	0.50	0.50	580,000
68	Fairbairn Rd	Serpentine	Fairbairn Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
69	Fawcett Rd	Byford	Fawcett Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
70	Fielder Rd	Serpentine	Fielder Rd - From SLK0.88 to SLK1.14	0.88	1.14	0.26	301,600
71	Forest Av	Jarrahdale	Forest Av - From SLK0.20 to SLK0.30	0.20	0.30	0.10	116,000
72	Fremnells Vale	Cardup	Fremnells Vale - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
73	Galvin Rd	Mundijong	Galvin Rd - From SLK0.00 to SLK0.77	0.00	0.77	0.77	893,200
74	George St (Byford)	Byford	George St (Byford) - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600
75	George St (Jarrahdale)	Jarrahdale	George St (Jarrahdale) - From SLK0.00 to SLK0.22	0.00	0.22	0.22	255,200
76	Ghost Gum Hts	Jarrahdale	Ghost Gum Hts - From SLK0.22 to SLK0.54	0.22	0.54	0.32	371,200
77	Gobby Rd	Keysbrook	Gobby Rd - From SLK3.46 to SLK4.11	3.46	4.11	0.65	754,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
78	Gordin Way	Byford	Gordin Way - From SLK0.56 to SLK0.70	0.56	0.70	0.14	162,400
79	Gossage Rd	Oldbury	Gossage Rd - From SLK1.42 to SLK2.01	1.42	2.01	0.59	684,400
80	Gull Rd	Serpentine	Gull Rd - From SLK0.00 to SLK1.52	0.00	1.52	1.52	1,763,200
		Serpentine	Gull Rd - From SLK1.52 to SLK2.30	1.52	2.30	0.78	904,800
		Serpentine	Gull Rd - From SLK2.30 to SLK3.39	2.30	3.39	1.09	1,264,400
81	Gurners Lane	Darling Downs	Gurners Lane - From SLK0.02 to SLK0.42	0.02	0.42	0.40	464,000
82	Hall Rd	Serpentine	Hall Rd - From SLK2.70 to SLK2.80	2.70	2.80	0.10	116,000
83	Hardey Rd	Serpentine	Hardey Rd - From SLK0.00 to SLK0.22	0.00	0.22	0.22	255,200
84	Harris Pl	Jarrahdale	Harris Pl - From SLK0.00 to SLK0.17	0.00	0.17	0.17	197,200
85	Helen Cr	Byford	Helen Cr - From SLK0.30 to 0.40	0.30	0.40	0.10	116,000
86	Henderson Rd	Hopeland	Henderson Rd - From SLK0.00 to SLK2.43	0.00	2.43	2.43	2,818,800
		Hopeland	Henderson Rd - From SLK6.46 to SLK7.05	6.46	7.05	0.59	684,400
87	Hibbertia Ct	Jarrahdale	Hibbertia Ct - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
88	Hinsley Lane	Byford	Hinsley Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
89	Honeydew Bend	Byford	Honeydew Bend - From SLK0.00 to SLK0.09	0.00	0.09	0.09	104,400
			Honeydew Bend - From SLK0.17 to SLK0.27	0.00	0.27	0.27	313,200

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
90	Hopeland Rd	Hopeland	Hopeland Rd - From SLK0.00 to SLK1.63	0.00	1.63	1.63	1,890,800
		Hopeland	Hopeland Rd - From SLK4.80 to SLK6.24	4.80	6.24	1.44	1,670,400
		Hopeland	Hopeland Rd - From SLK6.28 to SLK10.02	6.28	10.02	3.74	4,338,400
		Hopeland	Hopeland Rd - From SLK10.02 to SLK12.39	10.02	12.39	2.37	2,749,200
91	Hopkinson Rd	Darling Downs	Hopkinson Rd - From SLK4.36 to SLK4.90	4.36	4.90	0.54	626,400
		Darling Downs	Hopkinson Rd - From SLK6.61 to SLK7.56	6.61	7.56	0.95	1,102,000
92	Isma Ct	Mundijong	Isma Ct - From SLK0.00 to SLK0.18	0.00	0.18	0.18	208,800
93	Jackson Rd	Oldbury	Jackson Rd - From SLK0.34 to SLK0.44	0.34	0.44	0.10	116,000
		Oldbury	Jackson Rd - From SLK1.43 to SLK1.53	1.43	1.53	0.10	116,000
94	Jamieson Rise	Byford	Jamieson Rise - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600
95	Jarrah Rd	Hopeland	Jarrah Rd - From SLK0.53 to SLK0.69	0.53	0.69	0.16	185,600
96	Jarrahdale Rd	Jarrahdale	Jarrahdale Rd - From SLK4.20 to SLK4.53	4.20	4.53	0.33	382,800
		Jarrahdale	Jarrahdale Rd - From SLK5.50 to SLK5.98	5.50	5.98	0.48	556,800
		Jarrahdale	Jarrahdale Rd - From SLK7.34 to SLK7.48	7.34	7.48	0.14	162,400

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
		Jarrahdale	Jarrahdale Rd - From SLK10.04 to SLK10.28	10.04	10.28	0.24	278,400
97	Jida Lane	Byford	Jida Lane - From SLK0.00 to SLK0.07	0.00	0.07	0.07	81,200
98	Kandimak Bvd	Byford	Kandimak Bvd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
99	Karbro Dr	Cardup	Karbro Dr - From SLK0.73 to SLK1.17	0.73	1.17	0.44	510,400
		Cardup	Karbro Dr - From SLK1.90 to SLK1.97	1.90	1.97	0.07	81,200
100	Karli Link	Byford	Karli Link - From SLK0.01 to SLK0.17	0.01	0.17	0.16	185,600
101	Karnup Creek Rd	Hopeland	Karnup Creek Rd - From SLK0.02 to SLK1.18	0.02	1.18	1.16	1,345,600
102	Karnup Road	Serpentine	Karnup Rd - From SLK0.65 to SLK1.12	0.65	1.12	0.47	545,200
		Serpentine	Karnup Rd - From SLK4.56 to SLK8.09	4.56	8.09	3.53	4,094,800
		Serpentine	Karnup Rd - From SLK8.17 to SLK9.76	8.17	9.76	1.59	1,844,400
		Serpentine	Karnup Rd - From SLK9.93 to SLK11.80	9.93	11.80	1.87	2,169,200
103	Keirnan St	Mundijong	Keirnan St - From SLK2.20 to SLK2.60	2.20	2.60	0.40	464,000
104	Kellet Dr	Darling Downs	Kellet Dr - From SLK 0.02 to SLK0.43	0.02	0.43	0.41	475,600
105	Kentucky Dr West	Darling Downs	Kentucky Dr West - From SLK0.00 to 0.10	0.00	0.10	0.10	116,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
106	Kentucky Dr	Darling Downs	Kentucky Dr - From SLK0.21 to SLK0.40	0.21	0.40	0.19	220,400
107	Kiln Rd	Byford	Kiln Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
108	King Jarrah Cir	Jarrahdale	King Jarrah Cir - From SLK0.00 to SLK0.19	0.00	0.19	0.19	220,400
109	King Rd	Oakford	King Jarrah Cir - From SLK0.63 to SLK0.74	0.63	0.74	0.11	127,600
		Oakford	King Rd - From SLK0.05 to SLK1.90	0.05	1.90	1.85	2,146,000
		Oakford	King Rd - From SLK2.66 to SLK3.10	2.66	3.10	0.44	510,400
		Oakford	King Rd - From SLK4.07 to SLK4.35	4.07	4.35	0.28	324,800
		Oakford	King Rd - From SLK5.69 to SLK5.82	5.69	5.82	0.13	150,800
110	Kingsbury Dr	Jarrahdale	Kingsbury Dr - From SLK0.03 to SLK1.06	0.03	1.06	1.03	1,194,800
		Jarrahdale	Kingsbury Dr - From SLK1.37 to SLK2.78	1.37	2.78	1.41	1,635,600
		Jarrahdale	Kingsbury Dr - From SLK7.00 to SLK10.83	7.00	10.83	3.83	4,442,800
		Jarrahdale	Kingsbury Dr - From SLK10.83 to SLK16.06	10.83	16.06	5.23	6,066,800
		Jarrahdale	Kingsbury Dr - From SLK16.06 to SLK17.14	16.06	17.14	1.08	1,252,800
		Jarrahdale	Kingsbury Dr - From SLK17.31 to SLK22.33	17.31	22.33	5.02	5,823,200
		Jarrahdale	Kingsbury Dr - From SLK33.33 to SLK24.43	22.33	24.43	2.10	2,436,000
		Jarrahdale	Kingsbury Dr - From SLK25.02 to SLK25.09	25.02	25.09	0.07	81,200

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
111	Kunzea Rise	Jarrahdale	Kunzea Rise - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
112	Lakeman PI	Byford	Lakeman PI - From SLK0.50 to SLK0.60	0.50	0.60	0.10	116,000
113	Larsen Rd	Byford	Larsen Rd - From SLK0.00 to SLK0.24	0.00	0.24	0.24	278,400
114	Leaver Way	Cardup	Leaver Way - From SLK0.02 to SLK1.04	0.02	1.04	1.02	1,183,200
115	Lefroy St	Byford	Lefroy St - From SLK0.25 to SLK0.76	0.25	0.76	0.51	591,600
		Byford	Lefroy St - From SLK1.35 to SLK1.48	1.35	1.48	0.13	150,800
116	Leipold Rd	Oldbury	Leipold Rd - From SLK3.20 to SLK3.30	3.20	3.30	0.10	116,000
117	Leslie St	Serpentine	Leslie St - From SLK0.07 to SLK0.53	0.07	0.53	0.46	533,600
118	Lightbody Rd	Mardella	Lightbody Rd - From SLK0.40 to SLK1.41	0.40	1.41	1.01	1,171,600
		Mardella	Lightbody Rd - From SLK1.41 to SLK3.45	1.41	3.45	2.04	2,366,400
		Mardella	Lightbody Rd - From SLK5.17 to SLK5.30	5.17	5.30	0.13	150,800
119	Linton St (North)	Byford	Linton St (North) - From SLK0.60 to SLK0.70	0.60	0.70	0.10	116,000
120	Little PI	Cardup	Little PI - From SLK0.00 to SLK0.60	0.00	0.60	0.60	696,000
121	Livesey St	Mundijong	Livesey St - From SLK0.15 to SLK1.00	0.15	1.00	0.85	986,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
122	Lorenz Way	Oakford	Lorenz Way - From SLK0.03 to SLK0.45	0.03	0.45	0.42	487,200
123	Lawrence Way	Oakford	Lawrence Way - From SLK0.03 to SLK0.45	0.55	0.56	0.01	11,600
124	Lowlands Rd	Mardella	Lowlands Rd - From SLK0.30 to SLK0.40	0.30	0.40	0.10	116,000
		Mardella	Lowlands Rd - From SLK1.88 to SLK2.67	1.88	2.67	0.79	916,400
		Mardella	Lowlands Rd - From SLK2.71 to SLK3.36	2.71	3.36	0.65	754,000
		Mardella	Lowlands Rd - From SLK3.40 to SLK5.16	3.40	5.16	1.76	2,041,600
125	Lupino St	Mundijong	Lupino St - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
126	Lychee PI	Byford	Lychee PI - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
127	Lyster Rd	Jarrahdale	Lyster Rd - From SLK2.25 to SLK2.38	2.25	2.38	0.13	150,800
128	Macey Lane	Byford	Macey Lane - From SLK 0.08 to SLK 0.15	0.08	0.15	0.07	81,200
129	Macleod CI	Byford	Macleod CI - From SLK0.02 to SLK0.31	0.02	0.31	0.29	336,400
130	Makin Ct	Byford	Makin Ct - From SLK0.00 to SLK0.18	0.00	0.18	0.18	208,800
131	Malarkey Rd	Byford	Malarkey Rd - From SLK0.24 to SLK0.62	0.24	0.62	0.38	440,800
		Byford	Malarkey Rd - From SLK1.22 to SLK1.35	1.22	1.35	0.13	150,800

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
132	Malek Dr	Oakford	Malek Dr - From SLK0.02 to SLK0.37	0.02	0.37	0.35	406,000
		Mardella	Malek Dr - From SLK0.98 to SLK1.30	0.98	1.30	0.32	371,200
133	Manjedal Rd	Karrakup	Manjedal Rd - From SLK0.00 to SLK1.67	0.00	1.67	1.67	1,937,200
134	Manning Rd	Hopeland	Manning Rd - From SLK0.02 to SLK0.47	0.02	0.47	0.45	522,000
135	Maree CI	Byford	Maree CI - From SLK0.07 to SLK0.16	0.00	0.16	0.16	185,600
136	Mardja Loop	Mardella	Mardja Loop - From SLK0.00 to SLK0.49	0.00	0.49	0.49	568,400
137	Marsh Ct	Jarrahdale	Marsh Ct - From SLK0.00 to SLK0.56	0.00	0.56	0.56	649,600
138	Masters Rd	Darling Downs	Masters Rd - From SLK1.19 to SLK2.62	1.19	2.62	1.43	1,658,800
139	Maxwell St	Serpentine	Maxwell St - From SLK0.25 to SLK0.51	0.25	0.51	0.26	301,600
140	McGurk Ct	Byford	McGurk Ct - From SLK0.00 to SLK0.14	0.00	0.14	0.14	162,400
141	McNeil Gr	Jarrahdale	McNeil Gr - From SLK0.00 to SLK0.20	0.00	0.20	0.20	232,000
142	Mead St	Byford	Mead St - From SLK1.76 to SLK1.92	1.76	1.92	0.16	185,600
		Byford	Mead St - From SLK0.37 to SLK0.93	0.37	0.93	0.56	649,600
143	Meadows Way	Oakford	Meadows Way - From SLK0.25 to SLK0.46	0.25	0.46	0.21	243,600
144	Medulla Rd	Jarrahdale	Medulla Rd - From SLK0.79 to SLK1.30	0.79	1.30	0.51	591,600
145	Middleton CI	Serpentine	Middleton CI - From SLK0.03 to SLK0.12	0.03	0.12	0.09	104,400

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
146	Millard Way	Byford	Millard Way - From SLK0.10 to SLK0.22	0.10	0.22	0.12	139,200
147	Millbrook CI	Jarrahdale	Millbrook CI - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
148	Mundijong Rd	Mundijong	Mundijong Rd - From SLK0.60 to SLK0.70	0.60	0.70	0.10	116,000
		Mundijong	Mundijong Rd - From SLK1.96 to SLK1.98	1.96	1.98	0.02	23,200
		Oldbury	Mundijong Rd - From SLK3.26 to SLK03.64	3.26	3.64	0.38	440,800
149	Nettleton Rd	Byford	Nettleton Rd - From SLK1.54 to SLK2.43	1.54	2.43	0.89	1,032,400
		Byford	Nettleton Rd - From SLK3.51 to SLK5.57	3.51	5.57	2.06	2,389,600
		Karrakup	Nettleton Rd - From SLK9.21 to SLK10.77	9.21	10.77	1.56	1,809,600
		Karrakup	Nettleton Rd - From SLK12.63 to SLK14.14	12.63	14.14	1.51	1,751,600
150	Nicholson Rd	Oakford	Nicholson Rd - From SLK1.23 to SLK2.74	1.23	2.74	1.51	1,751,600
		Oakford	Nicholson Rd - From SLK2.78 to SLK4.87	2.78	4.87	2.09	2,424,400
151	Ninka Lane	Byford	Ninka Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
152	Norman Rd	Whitby	Norman Rd - From SLK1.70 to SLK1.80	1.70	1.80	0.10	116,000
153	Nutmeg Pass	Byford	Nutmeg Pass - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
154	Oak Way	Jarrahdale	Oak Way - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
155	Old Nettleton Road	Byford	Old Nettleton Road - From SLK0.00 to SLK0.95	0.00	0.95	0.95	1,102,000
156	Orton Rd	Oakford	Orton Rd - From SLK6.36 to SLK6.75	6.36	6.75	0.39	452,400
		Oakford	Orton Rd - From SLK7.62 to SLK9.50	7.62	9.50	1.88	2,180,800
157	Page Rd	Keysbrook	Page Rd - From SLK0.03 to SLK0.79	0.03	0.79	0.76	881,600
158	Paterson St	Mundijong	Paterson St - From SLK0.51 to SLK0.80	0.51	0.80	0.29	336,400
159	Peppies Cr	Byford	Peppies Cr - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
160	Peters Way	Oakford	Peters Way - From SLK0.00 to SLK0.41	0.00	0.41	0.41	475,600
161	Peverett Lane	Oakford	Peverett Lane - From SLK0.01 to SLK0.68	0.01	0.68	0.67	777,200
162	Pimento Lane	Byford	Pimento Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
163	Plaistowe Bvd	Byford	Plaistowe Bvd - From SLK0.30 to SLK0.42	0.30	0.42	0.12	139,200
164	Pollard Crss	Cardup	Pollard Crss - from SLK0.02 to SLK0.26	0.02	0.26	0.24	278,400
165	Pomera Dr	Byford	Pomera Dr - From SLK0.35 to SLK0.45	0.35	0.45	0.10	116,000
166	Pony PI	Oakford	Pony PI - From SLK0.02 to SLK1.00	0.02	1.00	0.98	1,136,800
167	Portwine Av	Byford	Portwine Av - From SLK0.60 to SLK0.70	0.60	0.70	0.10	116,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
168	Pound CI	Byford	Pound CI - From SLK0.02 to SLK0.09	0.02	0.09	0.07	81,200
169	Powderbark CI	Jarrahdale	Powderbark CI - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
170	Pruden Rd	Jarrahdale	Pruden Rd - From SLK0.40 to SLK0.59	0.40	0.59	0.19	220,400
		Jarrahdale	Pruden Rd - From SLK1.05 to SLK1.24	1.05	1.24	0.19	220,400
171	Punrak Rd	Hopeland	Punrak Rd - From SLK0.04 to SLK1.48	0.04	1.48	1.44	1,670,400
		Hopeland	Punrak Rd - From SLK1.50 to SLK2.84	1.50	2.84	1.34	1,554,400
		Hopeland	Punrak Rd - From SLK2.84 to SLK3.71	2.84	3.71	0.87	1,009,200
		Hopeland	Punrak Rd - From SLK3.71 to SLK6.80	3.71	6.80	3.09	3,584,400
		Hopeland	Punrak Rd - From SLK6.80 to SLK8.50	6.80	8.50	1.70	1,972,000
172	Pure Steel Lane	Mundijong	Pure Steel Lane - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
173	Quinine Cr	Byford	Quinine Cr - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
174	Racy Prince Ct	Byford	Racy Prince Ct - From SLK0.02 to SLK0.45	0.02	0.45	0.43	498,800
175	Randell Rd	Mardella	Randell Rd - From SLK2.60 to SLK2.70	2.60	2.70	0.10	116,000
176	Rangeview Loop	Serpentine	Rangeview Loop - From SLK0.90 to SLK1.37	0.90	1.37	0.47	545,200

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
177	Rapids Rd	Mardella	Rapids Rd - From SLK0.00 to SLK1.06	0.00	1.06	1.06	1,229,600
		Serpentine	Rapids Rd - From SLK2.90 to SLK3.00	2.90	3.00	0.10	116,000
178	Ray CI	Serpentine	Ray CI - From SLK0.00 to SLK0.07	0.00	0.07	0.07	81,200
179	Redcliffe Rd	Cardup	Redcliffe Rd - From SLK0.02 to SLK0.17	0.00	0.67	0.67	777,200
180	Redcurrant St	Byford	Redcurrant St - From SLK0.00 to SLK0.16	0.00	0.16	0.16	185,600
181	Renaud Way		Redcurrant St - From SLK0.16 to SLK0.67	0.16	0.67	0.51	591,600
		Byford	Renaud Way - From SLK0.02 to SLK0.40	0.02	0.40	0.38	440,800
182	Richardson St (Mund)	Mundijong	Richardson St (Mund) - From SLK 0.44 to SLK 0.63	0.44	0.63	0.19	220,400
		Mundijong	Richardson St (Mund) - From SLK 1.77 to SLK 2.01	1.77	2.01	0.24	278,400
183	Richardson St (Serp)	Serpentine	Richardson St (Serp) - From SLK0.14 to SLK1.07	0.14	1.07	0.93	1,078,800
184	Rowe Rd	Serpentine	Rowe Rd - From SLK 1.00 to SLK4.31	1.00	4.31	3.31	3,839,600
185	Rowley Rd	Hilbert	Rowley Rd - From SLK0.98 - SLK1.79	0.98	1.79	0.81	939,600
		Oakford	Rowley Rd - From SLK1.81 to SLK1.95	1.81	1.95	0.14	162,400
		Oakford	Rowley Rd - From SLK3.59 to SLK4.15	3.59	4.15	0.56	649,600

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
186	Rubery Way	Byford	Rubery Way - From SLK0.20 to SLK0.30	0.20	0.30	0.10	116,000
187	Rustic PI	Oakford	Rustic PI - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
188	Salmon Bark Rd	Serpentine	Salmon Bark Rd - From SLK0.03 to SLK1.18	0.03	1.18	1.15	1,334,000
		Serpentine	Salmon Bark Rd - From SLK1.18 to SLK1.85	1.18	1.85	0.67	777,200
189	Scrivener Rd	Serpentine	Scrivener Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
190	Selkirk Rd	Jarrahdale	Selkirk Rd - From SLK0.21 to SLK1.25	0.21	1.25	1.04	1,206,400
191	Shanley Rd	Mardella	Shanley Rd - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600
192	Silverpan Way	Byford	Silverpan Way - From SLK0.00 to SLK0.20	0.00	0.20	0.20	232,000
193	Soldiers Rd	Byford	Soldiers Rd - From SLK0.17 to SLK0.40	0.17	0.40	0.23	266,800
		Byford	Soldiers Rd - From SLK4.90 to SLK4.99	4.90	4.99	0.09	104,400
194	Spears Dr	Oakford	Spears Dr - From SLK0.20 to SLK1.07	0.20	1.07	0.87	1,009,200
195	Stanley Rd	Byford	Stanley Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
196	Summerfield Rd	Mardella	Summerfield Rd - From SLK3.30 to SLK4.52	3.30	4.52	1.22	1,415,200
197	Sundew Lane	Jarrahdale	Sundew Lane - From SLK0.00 to SLK0.20	0.00	0.20	0.20	232,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
198	Tallagandra Court	Serpentine	Tallagandra Court - From	0.00	0.24	0.24	278,400
199	Taylor Rd	Mundijong	Taylor Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
200	The Rampart	Byford	The Rampart - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
201	Three Kangaroos Way	Byford	Three Kangaroos Way - From SLK0.02 to SLK0.27	0.02	0.27	0.25	290,000
202	Tiara Ct	Darling Downs	Tiara Ct - From SLK0.02 to SLK0.42	0.02	0.42	0.40	464,000
203	Toffee Lane	Byford	Toffee Lane - From SLK0.00 to SLK0.08	0.00	0.08	0.08	92,800
204	Tonkin St (Mund)	Mundijong	Tonkin St (Mund) - From SLK0.10 to SLK0.20	0.10	0.20	0.10	116,000
		Mundijong	Tonkin St (Mund) - From SLK1.10 to SLK1.20	1.10	1.20	0.10	116,000
205	Tonkin St (Serp)	Serpentine	Tonkin St - From SLK0.00 to SLK0.37	0.00	0.37	0.37	429,200
206	Truman Prom	Byford	Truman Prom - From SLK0.00 to SLK0.11	0.00	0.11	0.11	127,600
207	Tulloch Way	Darling Downs	Tulloch Way - From SLK0.02 to SLK0.61	0.02	0.61	0.59	684,400

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
208	Turner St	Serpentine	Turner St - From SLK0.20 to SLK0.18	0.02	0.18	0.16	185,600
209	Utley Rd	Hopeland	Utley Rd -From SLK2.63 to SLK3.43	2.63	3.43	0.80	928,000
210	Walters Rd	Byford	Walters Rd - From SLK0.71 to SLK0.90	0.71	0.90	0.19	220,400
211	Watkins Rd	Mundijong	Watkins Rd - From SLK0.12 to SLK1.01	0.12	1.01	0.89	1,032,400
212	Wattle Rd	Serpentine	Wattle Rd - From SLK0.02 to SLK0.50	0.02	0.50	0.48	556,800
213	Wellard St	Mundijong	Wellard St - From SLK0.40 to SLK0.69	0.40	0.69	0.29	336,400
214	Westcott Rd	Hopeland	Westcott Rd - From SLK1.22 to SLK4.93	1.22	4.93	3.71	4,303,600
215	Wilaring St	Byford	Wilaring St - From SLK0.30 to SLK0.43	0.30	0.43	0.13	150,800
216	Wolfe Rd	Oakford	Wolfe Rd - From SLK0.00 to SLK0.10	0.00	0.10	0.10	116,000
217	Wright Rd	Mundijong	Wright Rd - From SLK0.04 to SLK0.30	0.04	0.30	0.26	301,600
		Mundijong	Wright Rd - From SLK0.90 to SLK0.95	0.90	0.95	0.05	58,000

#	Roads Name	Location	PROJECT	From SLK	To SLK	Length (km)	Estimated Cost 1.16M/Km
		Mundijong	Wright Rd -From SLK4.82 to SLK5.44	4.82	5.44	0.62	719,200
218	Wungong South Rd	Darling Downs	Wungong South Rd - From SLK2.30 to SLK2.43	2.30	2.43	0.13	150,800
219	Yangedi Rd (North)	Hopeland	Yangedi Rd (North) - From SLK0.02 to SLK1.99	0.02	1.99	1.97	2,285,200
220	Yangedi Rd (South)	Hopeland	Yangedi Rd (South) - From SLK0.00 to SLK1.22	0.00	1.22	1.22	1,415,200
174 KM							\$202,930,400
Line marking by MRWA 10%							\$20,293,040
Drainage (design required) 20%							40,586,080
TOTAL :							263,809,520

Figure 3.9 - FRWP for the Score 4 projects

Appendix F - Figure 4.2

Risk Description	Causes	Consequences	Objective Threatened	Risk Owner	Controllability	Controls	Risk Assessment				Control Rating	Acceptability (refer risk appetite)	Risk mitigation strategies (to further lower the risk rating if required)		
							Consequence Category	Consequence	Likelihood	Risk Rating			Action *indicates a key project	Responsible Officer	Target Date
Unclear level of service / knowledge of community need	<ul style="list-style-type: none"> Lack of Councillor buy-in Population growth Suitability of historical assets Volume of Councillor requests Lack of strategic direction / community representation No understanding of current level of service Lack of criteria to determine level of service Lack of renewal programs 	<ul style="list-style-type: none"> Inconsistent application of maintenance costs (e.g. overspends and underspends) Community Dissatisfaction (reputation) Early onset deterioration of assets 	1	AM-TAG	Controllable	<ul style="list-style-type: none"> Community Perceptions Survey Action Request System Budget Process and allocation of resources 	Reputation / Financial	Moderate	Likely	SIGNIFICANT	Inadequate	Action Required	Maintenance Service Level Plan (Refer CBP) Rationalisation of Assets (Refer CBP) OneComm Works Asset Module OneComm CRM module Monthly Reporting Finance and Assets and Works	Manager Operations Director Infrastructure Services OneComm Asset Key User OneComm CRM Key User Manager Finance	30 June 2021 30 June 2022 30 April 2021 31 May 2021 30 June 2021
Assets life-cycle costs are not budgeted	<ul style="list-style-type: none"> Inadequate Methods of calculation due to lack of availability of data Not planning for life cycle costs from the outset (e.g. council reports) Community education and the impact of rapid growth 	<ul style="list-style-type: none"> Inadequate renewal programs Inability to forecast real costs 	4	AM-TAG	Controllable	<ul style="list-style-type: none"> Budget Process and allocation of resources AM-TAG Business Case Template including life cycle cost estimates 	Financial	Major	Unlikely	MODERATE	Adequate	Action Required	Council Report Update (Refer Infrastructure Service Team Plan)	Director Infrastructure Services	30 June 2021

Risk Description	Causes	Consequences	Objective Threatened	Risk Owner	Controllability	Controls	Risk Assessment				Control Rating	Acceptability (refer risk appetite)	Risk mitigation strategies (to further lower the risk rating if required)		
							Consequence Category	Consequence	Likelihood	Risk Rating			Action *indicates a key project	Responsible Officer	Target Date
Poor financial management	<ul style="list-style-type: none"> Poor budgeting of asset maintenance and renewal costs Unclear roles and responsibilities Political pressure to deliver unplanned infrastructure Lack of pre-planning for projects 	<ul style="list-style-type: none"> Unfunded projects Poor community outcomes e.g. asset delivery, inadequate level of service Negative community perception / reputation damage Reactive works rather than proactive 	All	Executive Management Group	Controllable	<ul style="list-style-type: none"> Integrated Planning and Reporting Framework (Budget, CBP, Asset Management Strategy, LTTP etc.) Asset Management Plans Database of asset and financial information (OneComm) AM-TAG Advocacy Strategies 	Financial	Major	Possible	SIGNIFICANT	Adequate	No - Action Required	Implement Asset Data Integration and Reporting		

Risk Description	Causes	Consequences	Objective Threatened	Risk Owner	Controllability	Controls	Risk Assessment				Control Rating	Acceptability (refer risk appetite)	Risk mitigation strategies (to further lower the risk rating if required)		
							Consequence Category	Consequence	Likelihood	Risk Rating			Action *indicates a key project	Responsible Officer	Target Date
Inadequate record keeping on asset inspections, maintenance, renewals and decision making	<ul style="list-style-type: none"> Inconsistent application of record keeping technologies Lack of streamlined / integrated processes for asset management across whole business Lack of resources to implement processes and systems 	<ul style="list-style-type: none"> Staff Retention / turnover from frustration Uninformed decisions Ineffective expenditure of funds i.e. capital upgrade vs ongoing maintenance 	All	Director Infrastructure Services	Controllable	<ul style="list-style-type: none"> Asset Management Strategy and Improvement Action Plan Asset Register OneComm Review and verification of renewals identified in Asset Management Plans jointly between operations team and asset coordinator 	Organisational Performance / Financial	Moderate	Almost Certain	HIGH	Inadequate	No - Action Required	<ul style="list-style-type: none"> Coordinate the AM-TAG to implement AMS actions Implement Works Module in OneComm Implement a resourced (people and process) structure that covers the review and implementation process for asset management 	<ul style="list-style-type: none"> Asset Management Coordinator OneComm Asset Key User Director Infrastructure Services 	<ul style="list-style-type: none"> June 2024 April 2021 June 2022
Lack of knowledge of the Assets the Shire has	<ul style="list-style-type: none"> Data gaps and missing assets Lack of process for identification Lack of communication between business units when new assets are recognised 	<ul style="list-style-type: none"> Unmaintained assets Inadequate information for forward planning renewals Liability Uninformed decisions 	1.2.3	Asset Management Coordinator	Controllable	<ul style="list-style-type: none"> Four Year Asset Condition Inspection Program Handover process of assets for subdivisions and capital works 	Organisational Performance	Moderate	Possible	MODERATE	Adequate	No - Action Required	<ul style="list-style-type: none"> Begin implementing the condition survey program for each asset class (subject to works in OneComm) 	<ul style="list-style-type: none"> Asset Management Coordinator 	<ul style="list-style-type: none"> June 2021

Figure 4.1 - Shire of Serpentine Jarrahdale Asset Management Strategy Risk Register