SHIRE OF GNOWANGERUP ROADS STRATEGY APRIL 2017



Executive Summary

The primary function of a road is to allow the transportation of people and goods from one place to another. At one end of the scale, regional roads provide a high degree of mobility, by safely and efficiently moving high volumes of traffic, often at high speeds, over relatively long distances. The function of these roads is consistent with the function of 'highways' and 'main roads' as described in the Main Roads Act 1930 and this type of road is accepted as the responsibility of the State Government.

At the other end of the scale, the function of local streets and rural roads is primarily to provide access to abutting properties and land uses and connectivity between local districts and to main roads. They are characterised by a lower speed environment with closely spaced driveway access. These types of road are accepted as the responsibility of Local Government.

With the introduction of recent legislation, Local Governments are now required to have Asset Management Plans to openly manage their infrastructure. These plans are to ensure that Councils are planning to maintain their assets including the road network, adequately into the future. This strategy is part of Council's overall policy to introduce 'best practice' techniques in the routine maintenance of its infrastructure including sustainable upgrades as the demand increases.

This report has been written to provide the reader with information that will allow them to effectively understand the concepts of asset management. It focuses on the Road Hierarchy and the need to classify roads to a function, and to assign a reasonable 'level of service' for the maintenance of these roads which will satisfy ratepayers and residents, The report also describes the criteria for prioritising upgrades and maintenance of existing roads. It outlines the importance of aligning these levels of service to annual budgets and sourcing funding for the continuous ongoing preservation and upgrade of the road network.

Road Hierarchy

The Shire of Gnowangerup has over 1,068 kilometres of roads of which approximately 224kms are sealed and 844kms are unsealed. A road hierarchy for these roads has been developed to classify them by function to provide a standard of service that the Shire can sustainably maintain into the future. The Roads Hierarchy system is an adaption of the Main Roads NAASRA (National Association of Australian State Roads Authorities) Functional Classification System. (Refer to the MRWA Guidelines for Determining and Assigning Responsibility for Roads in Western Australia).

The NAASRA system was adapted for use in WA by developing a set of principles relating to the predominant role, or function of roads, based on the NAASRA definitions and the requirements of the Main Roads Act. These principles were supplemented by a supporting set of assessment criteria that are used to quantitatively determine the function a road performs (see Appendix A). This assessment allows roads to be grouped into one of nine classes according to their function, and administrative responsibility is assigned according to these classes.

A level of service (LOS) for the management of these roads is determined as guide to the standard that the Shire wishes to achieve with regard to its road network. This LOS is fluid and can change according to customer satisfaction. Regular climate surveys conducted by the Council will determine the LOS rating and any gap that may result. This in turn is linked to the Asset Management Plans.

Road Users

As stated, roads allow transportation of people and goods. The type and volume is dependent on the area, local needs and industry. In general, the roads are built to cater for, at the least, regular vehicular traffic. Many roads are designed and built to cater for other vehicles such as road train trucks, buses and, in some cases, farm tractors.

The road users can be categorized as;

- Ordinary vehicle users (standard sedans, 4 wheel drives)
- Standard trucks (4/6/8 wheelers and semi-trailers)
- Restricted Access vehicles (RAV) (road trains, over width/length tractors, etc.)
- School buses.

These users have different needs so the network is classified as per these needs and all the roads rated and registered for that user. Ordinary and standard trucks can use all the shire roads (unless a weight, or other, restriction has been imposed).

Details of school bus routes are upgraded regularly. Information on bus routes (which changes regularly) should be available through the Gnowangerup Shire Depot office. Details of roads included in the RAV network can be found on the Main Roads website.

Level of Service (LOS)

The road hierarchy is defined by the functions of the road and in turn the level of service (LOS) that the Shire can deliver. In order to provide a uniform standard across the board, typical criteria guidelines have been created to ensure that all roads conform to the minimum LOS. At present, some roads are not constructed to the standard that has been set. The aim of the Asset Management Plan is over time, to source funding to either renew or upgrade the road infrastructure to bring all roads into line with the requisite LOS. The attached (Appendix B) shows the level of service for each type of road based on its function. As mentioned, the LOS is fluid and subject to change to suit either customer satisfaction requirements or funding restraints.

Funding

There are various sources of funding available to the shire to maintain/upgrade Council infrastructure. These funds vary depending on many factors such as rate base, political influence, etc. The State and Federal Governments are now requesting evidence of good asset management strategies from Local Government. These detailed submissions are rewarded with greater funding providing the Local Government can support its application with robust reasoning and planning.

The different types of funding available for road infrastructure for maintenance and upgrade are:

- ✓ Shire Rates set by Council, a small portion of the collected rates revenue is allocated to road infrastructure for both maintenance and upgrade.
- ✓ Federal Assistance Grants (FAGs) these funds are fixed by the Federal Government and a portion is used for road maintenance.
- ✓ State Road Fund to Local Government -
 - Direct Grants annual fixed amount allocated directly to local government using the Asset Preservation Model formulae and can only be used for road maintenance. Managed by MRWA

- Road Project Grants these funds are administered through the Great Southern Regional Road Group (RRG). Funding is provided for road preservation and upgrade of roads in the ROADS 2030 Strategy. Funding ration is 2/3 State and 1/3 local government.
- State black spot projects administered through RRG and funding ration is 2/3 state and 1/3 local government.
- Commodity Routes administered by RRG and MRWA.
- ✓ Nation Building program (National Black Spot) Administered through the RRG, available for black spot projects and is 100% funded through federal government.
- ✓ Roads to Recovery (R2R) funded through the federal government these funds are determined every 5 years with Council drawing funds annually. Council can use these funds only on roads, for either maintenance, renewal or upgrade.
- ✓ WA Natural Disaster Relief and Recovery Arrangements (WANDRRA) funded through the Office of Emergency Management (OEM) and administered by Main Roads WA. These funds are for emergency use and only available if a natural disaster has been proclaimed by OEM. Council fund 25% to a ceiling of expenses to a ceiling of approximately \$153,400 (this changes each year) and is then funded 100% of the subsequent expenses.

Note: The funds granted to each Council through the RRG vary each year and are subject to the number and priority of submissions received.

Regional Road Group (RRG)

RRG's are responsible for assessing local government road funding needs; prioritising Road Projects and Black Spot projects; developing long-term plans for the distribution of Road Projects and Black Spot grants; monitoring and reporting program effectiveness; monitoring expenditure on approved local roads projects; raising relevant issues; and developing regional funding prioritisation guidelines based on recommended standards.

The RRGs are comprised of elected representatives from each Local Government within the road group. The Councils in the Great Southern RRG are;

- Albany
- Broomehill-Tambellup
- Cranbrook
- Denmark
- Gnowangerup
- Jerramungup
- Katanning
- Kent
- Kojonup
- Plantagenet
- Ravensthorpe
- Woodanilling

A 'technical working group' comprised of Local Government staff supports these groups and administrative support is provided by Main Roads WA.

Endorsed by the GSRRG, the "Roads 2030 Strategy" is a document that lists all roads of significance in the great southern area. Councils submit roads that they consider essential to preserve/renew or

upgrade into the future. Only roads listed in the Roads Regional Road Development Strategy are eligible for Road Project Grant funding. The road list is reviewed every 5 years.

Roads 2030 Regional Road Development Strategy

The Roads 2030 Regional Road Development Strategies, released during 1997 and 1998, were an initiative of the 1992 Memorandum of Understanding between the State Government and the Western Australian Local Government Association, then known as the Western Australian Municipal Association. The Memorandum of Understanding requires that the road development strategies be reviewed at five yearly intervals to assess the effects of changing circumstances.

The Roads 2030 Regional Road Development Strategy, for the Great Southern Region, constitutes the review of the Roads 2025 Regional Road Development Strategy. Local Governments, within the Great Southern region, were consulted and engaged in the process of reviewing and defining the Roads 2030 road network. The document presents the Roads 2030 road network in two parts: State roads and Local Government roads. Road development strategies for the State Roads are based upon the strategies defined in Main Roads' Road Asset Planning Investment Database. Local Governments reviewed and updated the road development strategies for the Local Government roads.

The roads of significance that the Shire of Gnowangerup has listed are:

- ALymore Street (Gnowangerup Tambellup Rd)
- Bluff Knoll Road
- Borden Bremer Bay Road
- Buncle Street
- Corbett Street
- Eldridge Street
- Garnett Road
- Glengarry Road (Gnowangerup Tambellup Rd)
- Gnowangerup Road (Kwobrup North Rd)
- Gnowangerup Tambellup Road
- Hughes Street (Gnowangerup Tambellup Rd)
- Kwobrup Road
- Mabinup Road (also called Salt River Road)
- Richardson Street
- Stirling Range Drive (managed by DPaW)
- Tieline Road
- Walsh Road

Black Spot Funding

Black spots are locations within the road network, usually intersections that are considered dangerous and have had either an accident/fatality in the past or there is a perceived concern there may be an accident in future.

To obtain funding for these areas a Safety Audit is carried out by a qualified engineer to determine the safety issue and to provide suggested necessary remedial work to rectify the problem. These Road safety audits form part of the submission to government for funding. The majority of serious black spot locations in the Shire of Gnowangerup have been addressed and are now monitored for any variations such as traffic changes.

Commodity Routes (Supplementary Fund)

Commodity routes are defined as routes where there is a significant high priority associated with the transport of a commodity such as grain, timber, agricultural lime, iron ore, etc.

Construction Resources (Gravel)

Most of the material used for the construction of roads is gravel. Previously gravel was sourced from Council managed reserves however, this resource is now depleted and the majority of gravel is currently sourced from private properties. Although there have been issues in the past with unsatisfactory gravel pit rehabilitation the Shire is in the process of implementing clear and concise gravel pit management plans using best practice for sourcing gravel and the final pit rehabilitation (see Appendix C).

Maintenance Practices

The maintenance of rural roads to an acceptable standard is part of the daily routine for the Shire's Work's crew. Regular tasks include;

- maintenance grading
- patching of blow-outs
- clearing culverts and drains
- repair/replacement of guideposts & signs
- verge slashing and herbicide spraying
- vegetation removal

Maintenance grading is the regular grading of the existing gravel pavement to help maintain a flat surface for 'reasonable' vehicle ride. The amount of grading carried out depends on the road hierarchy and the condition of the pavement. As the pavement thickness reduces over time the maintenance cost get higher.

Eventually the road is re-sheeted with 100-150mm of gravel, formed, and shaped with a crown and cross-fall.

Note: This practice is only effective on roads that have adequate gravel depth and shape. If the road is uneven or has serious rutting then other techniques such as scarifying the existing pavement and reshaping or re-sheeting are advisable.

Patching of blowouts, large depressions (holes) in the pavement, is carried out by the maintenance grader and involves the spreading of imported gravel into the low area.

Note; this is a quick fix solution. If the area is showing signs of more deterioration, then resheeting is advisable.

The roads should be inspected at least every 6-12 months and any guideposts or signs that need replacing are to be undertaken by the works crew.

Note: The activity should be carried out during the less demanding periods of the year.

Verge slashing is programed annually along with weed spraying and is usually carried out by the works crew.

Note: Annual schedules should be programmed with the maintenance grading.

Vegetation removal is carried out by the works crew and involves the removal of the entire vegetation from roadside drains to the top of the back-slope.

Note: Once carried out the verges should go on the slashing program for future maintenance.

The above activities are some of the key maintenance works that the work's crew carry out. Other activities include culvert cleaning, drain clearing and floodway maintenance.

Environmental

Council is committed to sustainable management and complying with environmental policy/legislation, particularly in relation to the conservation of native vegetation on roadside verges and reserves. These areas are of great significance, particularly where there are threatened species. The Council works with the Department of Parks and Wildlife (DEPaW) to protect the declared flora within the Shire. At various times DPaW will carry out surveys of roads to determine if the area has any significant rare native vegetation. Council will then be requested to declare these roads 'flora roads' and sign them accordingly (signs are provided by DPaW)

The Shire programs its maintenance practices to ensure that vegetation on these roads remains intact and the roads are still safe for the public to travel.

Future Planning

The Shire is developing a ten-year Long Term Financial Plan and programs for re-sheeting and construction upgrades are reviewed annually. Council has adopted a road hierarchy that determines the level of service for each road category; this in turn is used to establish the maintenance and renewal program.

Though the Shire has many kilometres of sealed roads, many are still of single chip seal construction and some considered to be below today's standard when taking into consideration traffic volumes and types of vehicles using them (such as road trains). However, preservation of our current single seal roads will be the priority until all roads are constructed up to an acceptable standard.

The plans under current development include:

- Preservation of sealed roads
- Upgrade of sealed roads including those in Roads 2030 (RRG projects)
- Upgrade/preservation of gravel roads

An action plan is attached (appendix C) to show Council's timeline for these plans.

Traffic counters are used to record traffic volumes to assist with road planning and funding. Council has six counters that are utilised to collect enough information for both low and peak traffic volumes to satisfy funding requirements. The majority of these counters are set on the higher category roads that attract external funding. At times counters will be placed on the lower category roads to capture any changes to daily traffic type and numbers. This data is used to determine the correct road category and corresponding LOS.

Shire staff are to inspect the roads regularly to determine their condition and, using the hierarchy format, will define a robust forward works program that will detail roads that require preservation/upgrading (and associated costs) to ensure that a balanced budget is maintained into the future.

The impact from flooding events in January 2016 and February 2017, both of which are WANDRRA eligible events has an effect on Council's future road program and will be adjusted accordingly.

Further information

Main Roads WA website: https://www.mainroads.wa.gov.au for:

- RAV routes
- Road Hierarchy Guidelines
- Funding

WALGA website http://walga.asn.au for;

Roads 2030 Strategy

Relevant legislation

- ❖ Local Government Act 1995
- Planning and Development Act 2005
- ❖ Main Roads Act 1930
- Environmental Protection Act 2003
- ❖ Soil and Conservation Act 1945
- Environmental Protection and Biodiversity Conservation Act 1999
- ❖ Aboriginal Heritage Act 1972
- ❖ Wildlife Conservation Act 1950
- Bush Fires Act 1954
- Disability Services Act 1993
- **❖** Land Act 1933
- ❖ Water Authority Act 1987
- State Energy Commission Supply Act 1979

APPENDIX A – Road Hierarchy

ROAD TYPES AND CRITERIA

* Roads classification as per Main Roads Criteria

Criteria	Primary	District	District	Regional	Local	Local	Access*	Access*	Minor Access
	Distributor * (PD)	Distributor A*	Distributor B*	Distributor*	Distributor*	Distributor*	Urban (A)	Rural (LA)	Rural (MA)
		Urban (DA)	Urban (DB)	Rural (RD)	Urban (LD)	Rural (LD)			
Description	Provide for major	Carry traffic	These roads have	These roads link	Roads that carry	Roads that carry	Provide access to	Provide access to	Provide access to
	regional and inter-	between	reduced capacity	significant	traffic within a cell	traffic within a cell	abutting	abutting rural	abutting rural
	regional traffic	industrial,	due to flow	destinations and	and link District or	and link Rural	properties with	properties and	properties (usually
	movement and	commercial and	restrictions from	are designed for	Regional	District and to	amenity, safety	connecting to	no through roads)
	carry large	residential areas	access to and	efficient	Distributors	Rural Access roads	and aesthetic	distributor roads	
	volumes of	connect to	roadside	movement of			aspects given		
	generally fast	primary Dist.		traffic			priority		
	moving traffic								
Primary Criteria*									
1. Location	All of WA, incl.	Only Built Up Area	Only BUA	Only BUA	All of WA, incl.	All of WA, incl.	All of WA, incl.	Shire of Cranbrook	Shire of Cranbrook
	BUA	(BUA)			BUA	BUA	BUA		
2. Responsibility	Main Roads WA	Local Govt.	Local Govt.	Local Govt.	Local Govt.	Local Govt.	Local Govt.	Local Govt.	Local Govt.
3. Degree of	High. Connects to	High. Connects to	High. Connects to	High. Connects to	Medium. Minor	Medium. Minor	Low. Provides	Low. Provides	None, generally a
Connectivity	other Primary and	Primary and/or	Primary and/or	Primary and/or	Network Role.	Network Role.	mainly for	mainly for	dead end
	Distributor roads	other Distributor	other Distributor	other Distributor	Connects to	Connects to	property access	property access.	
		roads	roads	roads	Distributors and	Distributors and		Connect to local	
					Access Roads	Access roads		Distributor.	
4. Predominant	Movement of	High capacity	Reduced capacity	Roads linking	Movement of	Movement of	Provision of	Provision of	Provision of
Purpose	inter-regional	traffic movements	but high traffic	significant	traffic within local	traffic within local	vehicle access to	vehicle access to	vehicle access to
	and/or cross	between	volumes travelling	destinations and	areas and connect	areas and connect	abutting	abutting	abutting
	town/city traffic,	industrial,	between	designed for	access roads to	access roads to	properties	properties.	properties
	e.g. freeways,	commercial and	industrial,	efficient	higher order	higher order			
	highways and	residential areas	commercial and	movement of	Distributors	districts.			
	main roads		residential areas	traffic within					
				regions					
Secondary Criteria*								1	1
5. Indicative Traffic	In accordance	Above 8 000 vpd	Above 6 000 vpd	Above 100 vpd	BUA – Max 6 000	50 – 100 vpd	BUA – Max 3 000	<50 vpd	<10 vpd
Volume (AADT)	with Classification				vpd		vpd		
	Assess. Guidelines				Non BUA - <100		<u>Non BUA</u> - <75		
6. Recommended	60-110 km/h	60-80 km/h	60-70 km/h	60-110 km/h	<u>BUA</u> – 50-60 km/h	<80 km/h	<u>BUA</u> – 50 km/h	<80 km/h	<60 km/h
operating speed					Non BUA - 60-110		Non BUA - 50-110		

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Criteria	Primary Distributor * (PD)	District Distributor A* Urban (DA)	District Distributor B* Urban (DB)	Regional Distributor* Rural (RD)	Local Distributor* Urban (LD)	Local Distributor* Rural (LD)	Access* Urban (A)	Access* Rural (LA)	Minor Access Rural (MA)
7. Heavy Vehicles permitted (RAV)	Yes	Yes	Yes	Yes	Yes	Only to service properties	Only to service properties	Only to service properties	N/R
8. Intersection treatments	Controlled with appropriate measures	Controlled with appropriate measures e.g. traffic signals	Controlled with appropriate Local Area Traffic Management	Controlled with measures such as signing and line marking of intersection.	Controlled with minor Local area Traffic Management	No	Self-controlling with minor measurements	Self-controlling with minor measurements	No
9. Frontage Access	None on Controlled Access Roads	Prefer not to have residential access. Limited commercial	Residential and commercial access due to its historic status.	Prefer not to have property access.	Yes, for property and commercial	Yes	Yes	Yes	Yes
10. Pedestrians	Preferably none. Crossing should be controlled where possible	With positive measures for control and safety	With appropriate measures for control and safety	With appropriate measures for control and safety	Yes, with minor safety measures where necessary	Yes	Yes	No	No
11. Buses	Yes	Yes	Yes	Yes	Yes	School buses	School buses	School buses	No
12. On-Road Parking	No. (emergency parking on shoulders only	Generally no. Clearways where necessary.	Not preferred. Clearways where necessary	No. Emergency parking on shoulders.	BUA – yes, where sufficient width, etc. Non BUA – No. Emergency parking on shoulders	Yes, where sufficient width and sight distance allow safe passing	Yes, where sufficient width and sight distance allow safe passing	Yes, where sufficient width and sight distance allow safe passing	N/R
13. Signs & Line marking	Centrelines, speed signs, guide and service signs to highway standard.	Centrelines, speed signs, guide and service signs	Centrelines, speed signs, guide and service signs	Centrelines, speed signs, guide signs	Speed and guide signs.	Rural areas – guide signs.	Urban areas - generally not applicable	Rural areas – guide signs.	No
14. Rest Areas & Parking Bays	In accordance with "Roadside Stopping Places Policy"	N/A	N/A	Parking Bays/Rest Areas. Desired at 60km spacing	N/A	N/A	N/A	N/A	N/A

APPENDIX B – Level of Service

Shire of Gnowangerup Levels of Service

Type 5 - Sealed Road (7m seal width) - Primary Distributor Roads

MRWA Class 1 Regional Distributor (Roads 2030 Road)

Carriageway 9 metres – vegetation clearing – 16 metres.

This is a further development of the Type 4 with extra seal width being provided to cater for higher traffic volumes and a high proportion of heavy vehicles.

Type 4 – Sealed Road (min 6.4m seal width) – District Distributor A (Major Feeder)

MRWA Class 2 Local Distributor

Carriageway 9 metres – vegetation clearing – 16 metres.

Sealed no kerbing.

Sealing is carried out to improve road-user comfort and safety when the road is experiencing higher traffic volumes or when significant numbers of heavy vehicles are required to use a Type 3 Road. A Type 3 road is upgraded to a Type 4 by building up the residual gravel pavement to a full thickness then compacted and sealed.

Type 3 – Gravel Road – District Distributor B (Lesser Feeder)

MRWA Class 2 Local Distributor

Carriageway 8 metres – vegetation clearing -15 metres.

Road construction from imported material of adequate thickness, shaped and drained.

When maintenance costs increase to unacceptable levels or when economic or social benefits are evident, a Type 2 road can be improved by sheeting the surface with suitable gravel material to become a Type 3 road.

Type 2 – Formed Road – Local Distributor (Access Major)

MRWA Class 3 Access Road

Carriageway – 7 metres - vegetation clearing – 13 metres.

Formed, raised and drained road without imported material or a constructed pavement.

To avoid possible further relocation of the road and the resultant impact on the landscape environment, Type 2 earth works are constructed using local road-making materials and improved drainage control

Type 1 – Unformed Road – Access Minor

MRWA Class 3 Access Road

Carriageway – 5 meters - vegetation clearing – 8 meters.

Cleared – flat bladed, minimum construction, formation consists of adjacent material.

This type is the first stage development of the road when the alignment is cleared of all vegetation with the running surface constructed with materials in-situ. This type of road allows for light traffic. With minimal drainage provision, the road is prone to closure during periods of heavy rainfall.

APPENDIX C – Action Plan

Action Plan

Planned Activity		Strategi	Progre	Progress report		
	Responsible Officer	Timeframe	Milestones	Status/Progress	Comments	
Traffic counts for significant roads	MW	Ongoing	Low and peak traffic volumes for roads			
2. Gravel Pit Register	MW/Leading Hands	June 2018 Ongoing	 List of existing pits List of new gravel sources for the Shire Rehab program 			
3. Rural road verge maintenance schedule	MW/Leading Hands	June 2018	 Schedule for slashing Schedule for spraying List of roads needing vegetation pruning 			
4. Road grading maintenance procedure	MW/Leading Hands	June 2018	 Grading procedures Grading techniques, training if required		Training to be organised with assistance of MRWA	
5. Sealed road future preservation program (including RRG 2030 roads) for next 5 years	MW/AWMC	End 2017 Ongoing	 Update list of sealed roads with single seal road holding priority for preservation Develop RRG 5yr preservation plan Linked to asset management plan 			
6. Upgrade and preservation of unsealed roads	MW/AWMC	June 2018	Linked to levels of serviceLinked to asset management plan			
7. Upgrade RAMM	MW/AWMC MW/Consultant	Ongoing 2018	 Upgrade RAMM Review of sealed road condition (in conjunction with Fair Value) 			

APPENDIX D – Road Hierarchy

Road Hierarchy

CATEGORY 5 – PRIMARY DISTRIBUTOR ROADS

(MRWA Class 1 Regional Distributor Road) – ROADS 2030

Bluff Knoll Rd (Maintained by DPaW)

Borden Bremer Bay Road

Buncle Street

Corbett Street

Eldridge Street

Garnett Road

Richardson Street

Gnowangerup Tambellup Road (incl. part Aylmore Street (0.24-0.58 SLK) Glengarry Road (0-0.9SLK) Hughes Street (0.0.38 SLK)

Salt River Road (Mabinup Road)

Tieline Road (west of Chester Pass Road)

Walsh Road

Gnowangerup Road (Kwobrup Road north of Tieline Road)

Kwobrup Road

Stirling Range Drive (maintained by DPaW)

CATEGORY 4 – DISTRICT DISTRIBUTOR A (Major Feeder)

(MRWA Class 2 Local Distributor)

Boxwood Ongerup Road (Ongerup town site to Cowalellup Road)

Chillinup Road

North Stirling Road (west of Formby South Road)

Ongerup Pingrup Road

Sandalwood Road (from Chester Pass Road to O'Meehans Road)

Strathaven Road (north of Airport Road)

Toompup South Road

CATEGORY 3 – DISTRICT DISTRIBUTOR B (Lessor Feeder)

(MRWA Class 2 Local Distributor)

Airport Road

Allardyce Street

Aylmore Street

Boxwood Hill Ongerup Road (Cowalellup Road to Shire boundary)

Coromup Road

Cowalellup Road

Cowcher Road

Gleeson Road

Gnowellen Road (to Shire boundary)

Hinkley Road (from Aylmore Street to Stutley Road)

Jaekel Street

Magitup Road

Mindarabin Road

Moir Street

Nightwell Road

North Stirling Road (from Formby south to Chester Pass Road)

Old Ongerup Road

O'Neill Road (from Ongerup Pingrup Rd to Chester Pass Road)

Pallinup Boundary Road

Pinacle Road

Rabbit Proof Fence Road

Salt River Road (from Formby South to Chester Pass Road)

Sandalwood Road (O'Meehans Road to Borden Bremer Bay Road)

Soldiers Road

Woodlands Road

CATEGORY 2 – LOCAL DISTRIBUTOR (Access Major)

(MRWA Class 3 Access Road)

Cecil Street

Clear Hills Road

Day Road

Hart Road

Highdenup Road

Hinkley Road (from Moores Dam Road to Mindarabin Road)

Holden Road

Shire of Gnowangerup Roads Strategy 2017 Jackitup Road (from Jakcitup North Road to Moores Dam Road) Kybellup Road (from Formby South Road to Shire boundary) Magners Road Maileeup Road McDonald Street **New Country Road** Nightwell South Road Oakdale Road O'Meehans Road Pallinup Road Park Road (to Day Road) Sandalwood Road (from O'Meehan to Borden Bremer Bay Road) Whitehead Road CATEGORY 1 – ACCESS (Access Minor) (MRWA Class 3 Access Road) Araluen Road **Beard Street Bell Street** Black Road Bridgman Road Camballup Road **Carpenter Street** Cleveland Road Cuneo Close D Stewart Road **Davies Road Dawson Road DeJagers Road Denny Street**

Douglas Road Evans Street Formby Street Foster Road

Dooleys Road (also known as Dolley Road)

Freegards Road Glenelg Road **Glengarry Road Greaves Hill Road Grimster Road Grocock Street Gully Road H Smith Road** Hams Street Haxby Road **Hobbs Road** Hornsey Road **House Street** Ireland Road Jackitup North Road Jackitup Road (from Moores Dam Road) Jackitup West Road Jam Road Jamvale Road John Avenue John Streeet Jones Road Kelly Road Lamont Street Laurier Road Laurier South Road McDonald Road Moores Dam Rd Mores Dam West Road (Parker Road) Mount Toolbrunup Road (maintained by DEPaW) Mungerup South Road O'Neill Road (from Ongerup Pingrup Road to P Jones Road) P Jones Road Park Road (from Day Road) Peerup Road

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Pendalup Road Pungrup Road Porteous Road Quinn Street Railway Parade Richardson Road Ron Wellstead Road **Routs Road** Schmedje Road Searle Street Shepherdson Road Shillings Road Six Mile Road Smith Road Stewarts Road Stone Avenue Stone Street Telyarup North Road (Eastwood North Road) Yelyarup Road (Eastwood Road) Tin Hut Road Vaux Street Walker Street White Road Willemmenup Road Windmar Road **Xmas Farm Road**