

WHEATBELT SNAPSHOT SERIES: LAND BASED TRANSPORT

Version 2 July 2014

PURPOSE OF DOCUMENT

This document summarises the Wheatbelt Development Commission's (WDC) understanding of transport infrastructure issues in the Wheatbelt. It highlights strategic issues for the region and proposes solutions to these problems. It is a working document, and stakeholders are encouraged to contact the WDC if they identify any errors.

FACTS

The Wheatbelt contains major interregional and interstate transport linkages such as the Great Northern Highway, Great Eastern Highway, Great Southern Highway, Brand Highway and the Albany Highway; and the East West Rail link. There is 45,069km⁽¹⁾ of road in the Wheatbelt servicing a mix of local, tourist and freight traffic (see Appendix 1 for details). An integrated land transport network is a vital aspect of the Wheatbelt economy. Sustainable, effective and efficient transport networks are critical to foster commercial enterprise and safe domestic use.



Figure 1: Wheatbelt Region (WDC 2012)

Version: 01 – Revision Due 30/06/2014

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

KEY TRANSPORT ISSUES

Perth to Darwin National Highway (PDNH) (Great Northern Highway)

The National Land Transport Network forms the backbone of passenger and freight transport in Australia, with the PDNH linking Perth with Northern Western Australia. This supports some of the largest ports by tonnage (Port Hedland, Dampier and Port Walcott) and the primary export industries dependent on these transport network linkages.

Growth in the mining sector in the North West, and Mid West has generated significant growth in traffic volumes, particularly heavy vehicles on the Great Northern Highway. Priority areas for upgrades on the GNH in the Wheatbelt include the Bindi-Bindi Curves and Walebing (Batty Bog Road to Walebing). Upgrade of the Bindi Bindi Curves section commenced in 2013 and is scheduled for completion by mid-2015. Funding has been allocated for upgrade of the Walebing section and work is scheduled to commence in mid-2014 for completion in early 2016.

Increased heavy traffic is also generating detrimental impacts to particular townsites on the GNH. Planning town bypasses has been undertaken for a number of communities, however funding for their construction has yet to be allocated. The townsites of New Norcia and Bindoon are particularly in need of bypasses.

Outer Metropolitan Ring Road

The Outer Ring Road is a longer term project with the potential to relieve Perth of heavy vehicle related congestion

and expand industry opportunity in the Wheatbelt, particularly in relation to transport logistics. The Outer Ring Road will reduce the requirement for heavy freight to traverse the metropolitan area and will also connect to the larger scale Portlink proposal. The scale, stakeholders and nature of the project makes the development of a single business case particularly complex, but it can be broken into two distinct parts, north and south links.

North Link: The North Link is critical to support the State's economic growth industries relocating to the Wheatbelt. It will alleviate congestion associated with heavy haulage vehicles in the metropolitan and peri urban growth areas (such as Mundaring and the Swan Valley). Investigations have occurred with regards to the development of this haulage link from Northam - Great Eastern Highway (GEH) to the Great Northern Highway (GNH), bypassing Perth.

Southern Link: Feasibility for the Southern portion of the Outer Ring Road: Brookton to Kwinana (Great Southern Highway (GSH) to Metropolitan area) requires planning.

Grain Freight

Over 10 years ago, the changing nature of both the grains and transport logistics industry triggered the evaluation of traditional networks and government investment in renewal and improvement works. Key factors influencing the industry include:

- Increased climate variability;
- Removal of statutory marketing arrangements for grain;
- Grain logistics deregulation; and

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

- Private operation (under lease) of the majority of the rail network used in grain freight transport.

In 2009, Strategic design + Development Pty Ltd completed the Strategic Grain Network Report (SGNR) for the WA Freight and Logistics Committee on behalf of the Strategic Grain Network Committee which identified:

- Rail linkages (Tier 3) for phased closure and ;
- Recommended investment in associated road infrastructure.

The SGNR recommended an investment of \$320million to upgrade roads and an annual cost of \$1.1million for road maintenance (2009 estimate). This investment was across the entire grain freight road network (Tier 1-3 routes),

In 2011, WALGA, with the support of the WDC, MWDC and GSDC, commissioned Cardno Eppell Olsen to undertake a process to confirm Local Governments role in delivering an efficient integrated grain freight network, focusing on the development of haulage routes for bin to bin and bin to port cartage that support rail.

The resultant Local Government Grain Freight Network Heavy Vehicle Strategic Pathway Mapping and Access Policy Report delivered:

- A strategic map of access for an integrated freight network;
- Defined a median cost associated with the upgrade of this proposed integrated freight network; and
- Delivered a heavy vehicle access policy template for consideration by Local Governments with the aim of providing consistency across LG boundaries.

Since the completion of the SGNR in 2009, CBH have made some notable changes to their grain logistics systems. The changes include:

- Contractual arrangement between CBH and Watco for the rail transport of grain from up country rail sites to port; and
- CBH's \$175million investment in locomotives and custom made rolling stock.

CBH believe that these changes will provide increased efficiencies and reduce rail freight rates by up to 7 per cent.

Changes in efficiencies of either road or rail would impact the assumptions and findings of the SGNR, meaning that road routes may now be more competitive or less competitive than rail lines.

There is a need for continuing investment in an integrated grain freight system (both road and rail) to provide the grain industry with safe and cost-effective access to export ports.

Mining and lime freight

Changing economic activity in recent years has seen significant growth in mining, and thus freight activity for this sector. Both wide and heavy loads servicing mining to the north and east, and product from the east of the region has impacted considerably on freight activity, including road, rail and port.

Similarly, expansion of lime mining on the Central Coast Sub-region is impacting on road usage and safety, particularly in the Shires of Gingin and Dandaragan.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

ROAD INFRASTRUCTURE

MANAGEMENT

Federal, State and Local government are all responsible in managing the Wheatbelt road network. The level of government responsible for particular roads is determined by an administrative classification system, assigning roads to either State or Local government depending on the area serviced as well as the traffic movements on the particular route.

The Australian Government:

- Regulates safety standards for new vehicles;
- Administers road funding such as the National Black Spot Program and;
- Provides infrastructure resources for the National Land and Transport Network. This network is based on national and inter-regional land transport corridors that connect urban areas, ports, airports and intermodal transport connections that are of critical importance to the economic growth of the nation. Wheatbelt roads that form part of this networks are:
 - Great Eastern Highway
 - Great Northern Highway

The State Government:

- Is responsible for aspects of road network management including funding, planning, designing and operation.
- Is charged with managing the vehicle registration and driver's license systems and regulation and enforcement of road use.

Main Roads (MRWA) is Western Australia's State road authority with delegated responsibility for WA roads under the *Main Roads Act 1930* and *Road Traffic Act 1974*. Main Roads is responsible for the funding and management of all roads classed as 'highways' and 'main roads' in the state. These roads serve a regional function and in the Wheatbelt comprise a State network length of 2,918km⁽¹⁾ and National network length of 653km⁽¹⁾ or 3,571km total⁽¹⁾ MRWA has legal responsibility for regulatory traffic signs on both state and local roads.

Main Roads' management of roads in the Wheatbelt Region is divided into two regions; Wheatbelt South and Wheatbelt North.

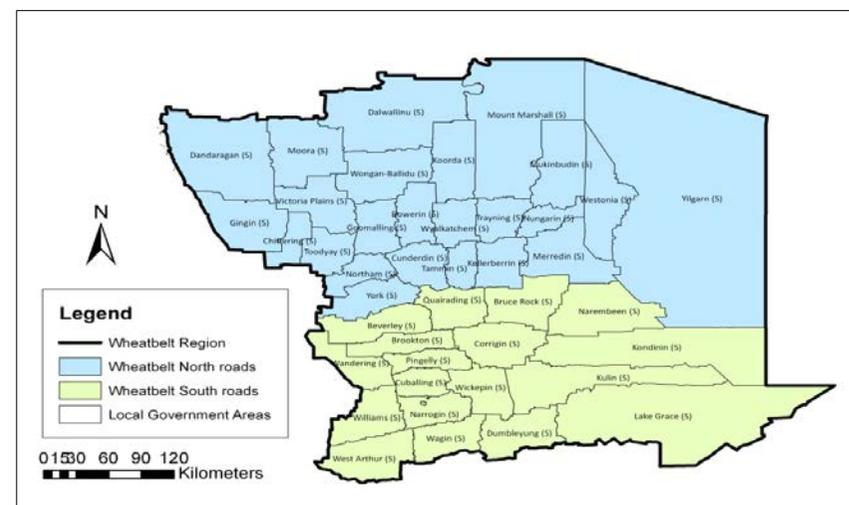


Figure 2: Wheatbelt Road Regions (Main Roads)

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

Local government responsibilities for road management are set out in the *Local Government Act 1995*. Local governments are charged with the responsibility for funding, planning, designing and operating the road networks in their local areas. The local road network within the Wheatbelt comprises of 41,498km⁽¹⁾, or 32% of Western Australia's 131,136km⁽¹⁾. Local Government are also accountable for all bridge structures on their roads with the exception of:

- bridges over the Swan River, bridges over freeways (MRWA responsibility) and;
- most bridges associated with rural irrigation and drainage schemes.

FUNDING MECHANISMS

The Australian Government contributes to road funding through the Nation Building Program, administered by the Department for Transport and Regional Services. They invest in programs such as the National Black Spot program, Roads to Recovery program and the Regional Infrastructure Fund.

The Federal Government provides \$5m per annum from the AusLink Black Spot Program to Western Australia. From this, 50% must be allocated to non-metropolitan projects. Similarly, the State Government provides funding for the State Black Spot Program, including local, state and national roads of which the program stipulates that 50% of the program funding is to be spend on non-metropolitan roads (this is then required to be equally split between local and state road projects (See Appendix 2).

Funding for the construction, maintenance and management of declared 'highways' and 'main roads', is provided by the State Government. These funds are derived principally from State vehicle licence fee collections under the *Road Traffic Act* and a consolidated fund special allocation. The State Government also provides funding for projects on the National Land Transport Network.

The State Road Funds to Local Government Agreement 2011/12 to 2015/16 (the Agreement) provides Local Government with an annual allocation of funds based on 27% of revenue from vehicle licensing fees. In addition to this, Local Governments receive road funding from Federal and State Governments, as well as being apportioned as a component of Local Government rates and charges. The remaining 73% appropriated from vehicle licensing fees is allocated to Main Roads as part of their annual budget.

This Agreement is overseen by MRWA and the Western Australian Local Government Association (WALGA). Regional Road Groups comprised of elected Local Government representatives make recommendations on behalf of all Local Governments through the State Road Funds to Local Government Advisory Committee (SAC) in regards to the Annual Local Government Roads Program for the Region. This committee appropriates and monitors funding and expenditure from approved local road programs.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

WHEATBELT SOUTH ROAD NETWORK

Local Governments	Beverley, Brookton, Bruce Rock, Corrigin, Cuballing, Dumbleyung, Kondinin, Kulin, Lake Grace, Narembeen, Narrogin (S), Narrogin (T), Pingelly, Quairading, Wagin, Wandering, West Arthur, Wickepin, Williams
Length of Roads (km)	Sealed.....5,259km ⁽¹⁾ Unsealed.....13,523km ⁽¹⁾ Total.....18,782km⁽¹⁾
Population	22, 738

The key issues for the Wheatbelt South road network are:

- Increasing proportion of farmers who want RAVs (Restricted Access Vehicles) to service farm to bin freight movements.
- Increase in RAV traffic on the local road network increasing the rate of deterioration of the road asset.
- Uncertainty of the future of grain freight railway lines, shifting freight from rail to road, increasing the rate of deterioration of the road asset.
- Decreasing the level of safety for other road users due to the prevalence of dust when travelling on unsealed roads.
- Lack of funding compared to network demands.
- Ability to obtain permits to clear native vegetation to undertake road works.
- The cost and time taken to relocate utilities in the road reserve delaying road activities.

While some rail still exists the majority of the transport task is undertaken by heavy vehicles and RAV combinations. There is a large road network that serves the current transport needs, and it will need to undergo improvements and maintenance to ensure it is capable of sustaining the expected growth in the transport task.

In the Wheatbelt South there are 21 Regional Roads. This includes three highways; Albany Highway, Brookton Highway and Great Southern Highway which are strategic freight, tourist and inter-town routes allowing heavy vehicle combinations (See Appendix 3).

These routes in the region provide important support to the agricultural industry as heavy combination grain haulage routes to coastal ports as well as providing inter-town access.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

WHEATBELT NORTH ROAD NETWORK

Local Governments	Chittering, Cunderdin, Dallwalinu, Dandaragan, Dowerin, Gingin, Goomalling, Kellerberrin, Koorda, Merredin, Moora, Mount Marshall, Mukinbudin, Northam, Nungarin, Tammin, Toodyay, Trayning, Victoria Plains, Westonia, Wongan-Ballidu, Wyalkatchem, Yilgarn, York
Length of Roads	Sealed.....8,365km ⁽¹⁾ Unsealed.....17,923km ⁽¹⁾ Total.....26,288km⁽¹⁾
Population	50,118

The key issues for the Wheatbelt North Road network are:

- Lack of funding to address backlog of road maintenance to improve user safety.
- Uncertainty of the future of grain freight railway lines, shifting freight from rail to road, increasing the rate of deterioration of the road asset.
- Roads are often over 40 years old and not constructed for today's types of combination trucks. Although road alignment and pavement width may satisfy the RAV classification, the road substrate/pavement strength is questionable.
- Greater pressure on Local Government to upgrade road classifications to allow heavy vehicle combinations.
- Ability to obtain permits to clear native vegetation to undertake road works.

- Locals, tourist, commercial and freight vehicles of different speeds decreasing safety through frustration and delays impacting road user behaviour.
- Increasing height and width of loads freighted GNH & GEH.

In the Wheatbelt North there are 24 Regional Roads. This includes four major highways; Brand Highway, Great Northern Highway, Great Eastern Highway and the Great Southern Highway. These roads provide major inter-regional and inter-state linkages between the Perth metropolitan area, Western Australian regional centres and other states and territories (See Appendix 3).

Great Northern Highway is part of the national road network within WA and the main link between the States North and South. It is part of an interstate route linking Perth and Darwin for the transportation of goods and services to and from the North of the state. Brand Highway is part of a major inter-regional route linking Perth with Geraldton. Great Eastern Highway (Mundaring to Northam) is part of the Perth-Adelaide AusLink Corridor, the major interstate link between Perth and the Eastern states.

State roads on the coast provide inter-town access, accommodating a combination of tourist, fishing, freight and local traffic. Most of the inland state roads service agricultural and mining interests and small communities in the region.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

HEAVY VEHICLES

Road wear is primarily caused by heavy vehicle movements, with the magnitude of road wear related to the vehicle combination used and the mass of the vehicle. The default combination for grain freight bulk grain transfer along local roads is a RAV3 network vehicle with a maximum length of 27.5m and a maximum mass of 82 tonne.

Restricted Access Vehicles (RAVs) are granted conditional access to Specified WA roads under the provision of the Road Traffic (Vehicle Standards) Regulations 2002 (Class 2 and 3 Notice).

A vehicle is classed as a 'heavy vehicle' if it has a Gross Vehicle Mass (GVM) exceeding 4.5 tonne, a combination that includes a vehicle with a GVM exceeding 4.5 tonne or if a load is being carried on a vehicle and or trailer. A vehicle is classed as a Restricted Access Vehicle (RAV) if that vehicle alone or together with any load, exceeds one or more of the following limits:

- mass limit prescribed in Part 3 of the *Road Traffic (Vehicle Standards) Regulations 2002*; or
- o one of the following dimension limits:
 - a width of 2.5 metres;
 - a height of 4.3 metres;
 - a length of 12.5 metres in the case of a motor vehicle that is not part of a combination; or
 - a length of 19 metres in the case of a combination;
 - any other dimension specified in the:
[Road Traffic \(Vehicle Standards\) Regulations 2002](#); or
[Road Traffic \(Vehicle Standards\) Rule 2002](#).

RAIL INFRASTRUCTURE

The rail network in the Wheatbelt consists of a combination of standard and narrow gauge lines which are operated by Brookfield Rail under a long term lease arrangement from the WA State Government. The standard gauge line forms part of the West-East line that runs from Fremantle to the Eastern States. The 2,300km⁽²⁾ of narrow gauge lines are used almost exclusively for grain and forms the grain rail network that services grain export ports in Geraldton, Esperance, Albany and Kwinana, supporting the regions \$4.5 billion grain export industry.

The broadacre agricultural sector produces an average of 11 million tonnes of grain per annum with 90% of production destined for export markets⁽²⁾. Rail transports around 60% by volume and 80% by net-tonne-kilometres, but its share is falling as road transport uptake is increasing in some areas. The rail network is subject to seasonal variations and significant competition from road transport. As a result the network supports only 10% of Brookfield Rail's total rail freight task over the course of the 5,100km State network⁽²⁾. Rationalisation of grain receival points and deregulation of the grain market has contributed to the declining economic advantage of rail over road grain freight movements.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

At the end of 2009, the Strategic Grain Network Committee released the Strategic Grain Network Report. The report main findings were:

- Transport of grain on road has been on the increase;
- The deregulation of grain export marketing arrangements has resulted in the operators in the industry seeking the most cost effective method of transporting grain to ports;
- Much of the rail network is in need of re-sleepering at an estimated cost of \$258 million for current railway lines⁽²⁾;
- In the Kwinana south zone, rail services are uncompetitive compared to road transport. This will potentially result in some rail lines being placed into care and maintenance. The government will be required to invest in road upgrades to handle this freight shift from rail to road;
- Rail operations are commercially viable for Kwinana North and Albany zones;
- The heavy vehicle permit network system will need to be reviewed to reflect the mode shift and changes in road freight movement patterns; and
- Long term planning should investigate the benefits of a potential railway line between Brookton and Kwinana.

This report categorized grain line sections into three tiers:

Tier 1 - The core line sections that form the basic structure of the network mostly carrying heavy volumes. Tier 1 line investments are considered essential to the ongoing viability of the whole network. Investment of \$121.2million over the

next 4 years will sustain these lines through another 10-15 year cycle⁽²⁾.

Tier 2 - Branch lines where rail services are viable based on current access rates and above rail costs, but where an investment choice is required between periodic rail re-sleepering and the upgrade of road networks. Up to \$43.3 million could be invested to sustain these lines, but in some cases it would be more economical to invest in alternative road infrastructure⁽²⁾.

Tier 3 - Branch lines mainly with light track, insufficient loading systems and low volumes and/or rail services. Tier 3 lines are already uncompetitive with road and do not warrant investment in upgrades when they are due. These lines can be closed, avoiding \$93.5 million of re-sleepering investment⁽²⁾.

State and Federal funding to the value of \$164.5 million has been endorsed, which will see around 1,265 kilometres of Tier 1 and 2 narrow gauge rail re-sleepered over a four year period. The state government has decided to exclude the 700km of Tier 3 rail lines from investment. These lines will become non-operational and will be put into care and maintenance. In June 2014, the Tier 3 rail lines were closed and placed into care and maintenance by Brookfield Rail.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

PASSENGER TRANSPORT

TransWA, a division of the Public Transport Authority operate three passenger railway services in the Wheatbelt.

The TransWA Prospector operates 7 days a week from East Perth Station to Kalgoorlie via Merredin, with two services on Mondays and Fridays. The 655km line has numerous Wheatbelt stops including Toodyay, Northam, Meckering, Cunderdin, Tammin, Kellerberrin, Doodlakine, Hines Hill, Merredin, Burracoppin, Carrabin, Bodallin, Moorine Rock, Southern Cross and Koolyanobbing.

The TransWA AvonLink offers a commuter service between Northam and Midland via Toodyay, five days a week. The AvonLink service began operating in 1995 as the state's first long distance commuter train. A new \$12 million train began operation on the line in 2005. The AvonLink operates twice daily, Monday to Friday between Midland, Toodyay and Northam

In 2004, the AvonLink introduced extended journeys three days a week through to Merredin. This service has become known as the MerredinLink. These extra train services provide a new transport option for people in communities such as Cunderdin, Tammin, Kellerberrin and Merredin as well as other smaller rural towns in the region. The MerredinLink operates from the East Perth Rail Terminal through to Merredin on Mondays, Wednesdays and Fridays.

The AvonLink (and associated MerredinLink) were scheduled to cease to operate in December 2013. However, a business case was developed in collaboration with TransWA and WDC, and funding obtained for a trial of an enhanced service for the AvonLink passenger service. It is hoped to trial multiple time schedules over the next three years, to determine trips that attract the most patronage. will monitor use of the service and modify times accordingly.

The Indian Pacific Railway is a passenger rail service that runs between Sydney and Perth twice weekly in both directions. The 4352 kilometre journey takes 3 nights. The train is part of Great Southern Rail.

TransWA also operates a bus fleet, which travels to a number of localities across Western Australia, with eight routes that have stops within the Wheatbelt.

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

APPENDIX 1

Shire Road Composition By Condition (Sealed/Unsealed)

Shire	Length Of Sealed Roads (KM)	Length Of Unsealed Roads (KM)
Beverley	241	516.5
Brookton	203	440
Bruce Rock	272	754
Chittering	270	159
Corrigin	405.4	767.6
Cuballing	176	465
Cunderdin	376	466
Dalwallinu	449	1490
Dandaragan	433	936
Dowerin	196	773.4
Dumbleyung	231	799
Gingin	467	429
Goomalling	218.6	469.9
Kellerberrin	228.59	710.17
Kondinin	286	1188.7
Koorda	245	840
Kulin	312	1292
Lake Grace	440.9	2050.02
Merredin	565	816
Moora	333	653
Mount Marshall	307	1440
Mukinbudin	189.1	732.6
Narembeen	293	1147

Shire	Length Of Sealed Roads (KM)	Length Of Unsealed Roads (KM)
Narrogin Town	61.5	13.3
Narrogin	181	558
Northam	353	286
Nungarin	248.8	390.4
Pingelly	203	384
Quairading	288	654
Tammin	131.51	369.23
Toodyay	285	351
Trayning	181.2	593.7
Victoria Plains	230.42	586.47
Wagin	260	626
Wandering	90	327
West Arthur	190	664
Westonia	121	764
Wickepin	157	717
Williams	181	373
Wongan-Ballidu	342.8	980.6
Wyalkatchem	174.5	507.8
Yilgarn	249	2531
York	264	471

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

APPENDIX 2

Blackspot Program MRWA Contribution & Costs (By Financial Year)

Wheatbelt North - State Blackspot Program (Local Roads)⁽¹⁾

Financial Year	Recommended Main Roads Contribution	Wheatbelt Project Costs
2008/2009	\$733,257	\$1,130,783
2009/2010	\$680,000	\$1,383,989
2010/2011	\$680,000	\$1,678,531
2011/2012	\$819,044	\$1,613,365
2012/2013	\$736,470	\$1,104,703

Wheatbelt North - State Blackspot Program (State Roads)⁽¹⁾

Financial Year	Recommended Main Roads Contribution	Wheatbelt Project Costs
2008/2009	\$778,000	\$2,714,750
2009/2010	\$620,000	\$620,000
2010/2011	\$670,000	\$750,000
2011/2012	\$600,000	\$600,000
2012/2013	\$660,000	\$660,000

Wheatbelt South - State Blackspot Program (Local Roads)⁽¹⁾

Financial Year	Recommended Main Roads Contribution	Wheatbelt Project Costs
2008/2009	\$476,816	\$1,495,478
2009/2010	\$480,118	\$1,216,994
2010/2011	\$483,597	\$1,359,879
2011/2012	\$381,672	\$2,215,631
2012/2013	\$581,257	\$1,080,833

Wheatbelt South - State Blackspot Program (State Roads)⁽¹⁾

Financial Year	Recommended Main Roads Contribution	Wheatbelt Project Costs
2008/2009	\$332,000	\$950,000
2009/2010	\$371,000	\$871,000
2010/2011	\$575,000	\$1,395,000
2011/2012	\$470,000	\$1,370,000
2012/2013	\$430,000	\$1,355,000

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.

APPENDIX 3

Regional Roads Controlled By Main Roads - Wheatbelt North & Wheatbelt South (Main Roads, 2013)

Wheatbelt North Region (Northam)	
Road	Section
Bindoon Moora Road	Whole Road
Brand Highway	Whole Road
Bruce Rock Quairading Road	Whole Road
Bruce Rock Merredin Road	Whole Road
Bullfinch Road	Whole Road
Calingari Road	Whole Road
Calingari Wongan Hill Road	Whole Road
Goomalling Wyalkatchem Road	Whole Road
Great Eastern Highway	Whole Road
Great Northern Highway	Whole Road
Great Southern Highway	Whole Road
Indian Ocean Drive	Whole Road
Jurien Road	Whole Road
Merredin-Nungarin Road	Whole Road
Midlands Road	Whole Road
Mullewa-Wubin Road	Whole Road
Northam-Pithara Road	Whole Road
Northam-Toodyay Road	McMillan Place, Northam to Toodyay Road
Northam-York Road	Whole Road
Nungarin-Wyalkatchem Road	Whole Road
Peel Terrace	Whole Road
Quairading-York Road	Whole Road
Southern Cross-Marvel Lock Road	Whole Road
Wanneroo Road	Whole Road

Wheatbelt South Region (Northam)	
Road	Section
Albany Highway	Whole Road
Arthur Road	Whole Road
Pingrup Lake Grace Road	Whole Road
Brookton Highway	Whole Road
Brookton Corrigin Road	Whole Road
Coalfields Road	Whole Road
Collie Williams Road	Whole Road
Corrigin-Kondinin Road	Whole Road
Corrigin Kulin Road	Whole Road
Dumbleyung Lake Grace Road	Whole Road
Great Southern Highway	Whole Road
Hyden Lake King Road	Whole Road
Kulin Lake Grace Road	Whole Road
Kondinin Hyden Road	Whole Road
Lake Grace Newdegate Road	Whole Road
Narrogin Kondinin Road	Whole Road
Newdegate Ravensthorpe Road	Whole Road
Northam York Road	Whole Road
Pinjarra Williams Road	Whole Road
Williams Kondinin Road	Whole Road
Wagin Dumbleyung Road	Whole Road

⁽¹⁾ Main Roads, Regional Digest 2011-2012. ⁽²⁾ Strategic Grain Freight Network Committee Report, 2009.