



Department of **Transport**

Main Roads Western Australia

Public Transport Authority

Department of **Primary Industries and Regional Development**

Revitalising Agricultural Region Freight Strategy - Appendices

RESPONDING TO CHANGE



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APPENDIX 1 - NON-REGION SPECIFIC

These are non-infrastructure projects, that align with the project packages for road, rail and intermodal. Those that do not directly align with the target areas but still address the Strategy objectives, have been listed under ‘Other’.

Rail improvements

There are two additional projects which would further advance the outcomes of rail improvements:

- **National Land Transport Network inclusions**
The Department of Transport will request that the National Land Transport Network defined agreement with the Federal Government include key rail lines connecting to each of the regional ports to validate their strategic importance.
- **Next generation Automatic Train Control System (Eastern Goldfields Railway)**
The State Government, through the Public Transport Authority, will work collaboratively with Arc Infrastructure to identify new and appropriate technology to improve train headways, thereby facilitating higher train throughput and improving network capacity.

Establish intermodal terminals

- **Access and connectivity to rail-adjacent land**
To improve opportunities for new intermodal terminals, rail sidings and other complementary development, the Department of Transport will work with relevant stakeholders to undertake a review of access and connectivity of rail-adjacent land.

Targeted road network investment

Further to improving road surfaces, other road infrastructure initiatives to be considered by Main Roads include:

- Reviewing the inventory of ageing, narrow width or lower strength bridge structures on nominated routes in regional areas to ensure heavy vehicle access does not become compromised due to deteriorating assets.
- Creating additional truck rest areas on major highways and ensuring they are integrated with existing or planned Main Roads sites.

Several initiatives have been identified to assist in providing equitable cost recovery mechanisms for road funding in the medium term:

- The Department of Transport will collaborate with Main Roads and local governments to investigate funding mechanisms for local roads.
- The Department of Transport and Main Roads will participate in the Transport and Infrastructure Council led heavy vehicle road reform.
- The Department of Transport will review heavy vehicle licencing fee structures in light of the outcomes of heavy vehicle road reform negotiations, with the aim of improving cost reflective pricing outcomes.

Regulatory efficiency

There are some areas where efficiencies can be gained with reduced cost and time savings from streamlining processes and procedures.

- Main Roads and the Department of Transport will conduct a holistic review of the registration, accreditation and permit processes for agricultural and heavy vehicles. This is expected to identify significant opportunities for improvement. Some of these may be captured through the current review of the WA Heavy Vehicle Accreditation Scheme and recent changes to the Harvest Mass Management Scheme. There are also opportunities to collect more data on heavy vehicle configurations and agricultural vehicle specifications when vehicles are registered, as well as reassess the current fees and charges structure to better reflect the administration costs and impact on local roads, if considered appropriate.
- Main Roads and the Department of Transport will work with Arc Infrastructure, the Public Transport Authority and local governments to review interface agreements for roads that cross disused rail lines. This will better serve communities and transporters, as heavy vehicles and road asset managers are currently required to adhere to safety requirements for signage, devices and stacking distances for all rail crossings, regardless of whether the line is trafficked or not.

- A review of current road standards for oversize over-mass (OSOM) routes will also be undertaken by Main Roads to accommodate variations in vehicle types and to further consider overhead powerline heights and/or underground options.
- Since the release of the draft Strategy, the Department of Transport, in consultation with Main Roads, has published improved and updated guidance materials regarding towed agricultural equipment and requirements for agricultural pilots. This will assist farmers and transporters to plan appropriately for the movement of agricultural vehicles during harvest.
- The Department of Transport and Main Roads will engage with Austroads to further develop heavy vehicle driver standards, including the implementation of the National Heavy Driver Competency Framework.

Other initiatives

To achieve the objectives of the Strategy, the following additional projects have been identified. These may be progressed in conjunction with, or separately to, the infrastructure projects proposed and may require further collaboration with other government and industry partners.

- The Department of Primary Industries and Regional Development will investigate the need for increasing abattoir capacity to facilitate increased processing of sheep and cattle in Western Australia for frozen / chilled meat exports. Related local road upgrades may also be required.
- The Department of Primary Industries and Regional Development will continue to investigate telecommunications issues in regional areas. This will support increased use of onboard telematics for

Performance Based Standards (PBS) vehicles and newer heavy vehicles, as well as providing added benefits for freight facilities such as intermodal terminals or receival sites. This is being progressed in part by the Regional Telecommunications Project. Any obvious identified gaps will be considered for funding in future projects.

- Main Roads will review the suitability and currency of heavy vehicle speed restrictions applied to RAV access to ensure that safety and efficiency remain core outcomes.
- All agencies will continue to work with industry groups to create better community understanding and support for the movement of agricultural freight, including the benefits of rail, and the benefits of heavy vehicles where rail is not available.

APPENDIX 2 - INFRASTRUCTURE PROJECT LIST



NG = Narrow Gauge, SG = Standard Gauge and DG = Dual Gauge

The draft release of RARF strategy focused on the relevant rail network and local government roads, and included only the key State roads identified as desirable 42m PBS routes. This final Strategy includes the full list of relevant State roads and the key improvements required including widening, realignments, passing lanes and bridge work priorities that will improve the safety and efficiency of the road network for all users.

| Project Number and Priority | Project Name | Location | Project Type | | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|---|--------------------------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|--|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | Rail Gauge | | Grain | Hay | Livestock | Lime | Fertiliser |
| RAIL PROJECTS | | | | | | | | | | | | | | |
| 1 | Avon (Northam) | | | | | | | | | | | | | |
| 1.1 | Avon - rail siding extension | Avon | | | | | Y | SG | More payload for narrow gauge train to standard gauge train grain transfers at Avon. Benefits for Avon, Goomalling, Konnongorring, Ballidu, McLevie, Dowerin, Cadoux, Kalannie, Beacon, Wyalkatchem, Koorda, Bencubbin, Mukinbudin. Also benefits road to rail transfers from Goodlands and Bonnie Rock. | Y | | | | |
| 1.2 | Avon - new intermodal terminal | Avon | | | Y | | | SG | Hay to Fremantle Port loaded in sea containers. Currently goes to Forrestfield by road, then loaded into sea containers and transported by rail to Fremantle Port. | | Y | | | |
| 2 | Perth to Geraldton | | | | | | | | | | | | | |
| 2.1 | Millendon Junction to Watheroo rail line reconstruction | Millendon Junction to Watheroo | Y | | | | | DG | Up to 50 per cent more payload per train. Enables longer trains. Optimises subsequent rail siding extensions. Benefits for Muchea, Moora, Watheroo. Provides dual gauge connectivity potential Perth to Geraldton. Rail line asset replacement. | Y | | | | |
| 2.1.1 | Muchea - rail siding extension | Muchea | | | | | Y | SG | New rail access from Muchea. Provides an alternative to grain road freight through North Link, Tonkin Hwy, Roe Hwy. | Y | | | | |

INFRASTRUCTURE PROJECT LIST



NG = Narrow Gauge, SG = Standard Gauge and DG = Dual Gauge

| Project Number and Priority | Project Name | Location | Project Type | | | | | Rail Gauge | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|--|-----------------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|---|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | | Grain | Hay | Livestock | Lime | Fertiliser |
| 2.1.2 | Muceha - new intermodal terminal | Muceha | | | Y | | | SG | New intermodal facility, allowing hay transport by rail to Fremantle Port loaded in sea containers. | | Y | | | |
| 2.1.3 | Moora - rail siding extension | Moora | | | | | Y | SG | Enables longer trains from Moora. | Y | | | | |
| 2.1.4 | Watheroo - rail siding extension | Watheroo | | | | | Y | SG | Enables longer trains from Watheroo. | Y | | | | |
| 2.2 | Watheroo to Geraldton rail line reconstruction | Watheroo to Geraldton | Y | | | | | DG | Up to 50 per cent more payload per train. Enables longer trains. Optimises subsequent rail siding extensions at Marchagee, Coorow, Carnamah, Arrino, Mingenew. Provides dual gauge connectivity potential Perth to Geraldton. | Y | | | | |
| 2.2.1 | Mingenew - rail siding extension | Mingenew | | | | | Y | SG | Enables longer trains from Mingenew. | Y | | | | |
| 2.2.2 | Carnamah - rail siding extension | Carnamah | | | | | Y | SG | Enables longer trains from Carnamah. | Y | | | | |
| 2.2.3 | Arrino - rail siding extension | Arrino | | | | | Y | SG | Enables longer trains from Arrino. | Y | | | | |
| 2.2.4 | Coorow - rail siding extension | Coorow | | | | | Y | SG | Enables longer trains from Coorow. | Y | | | | |
| 2.2.5 | Marchagee - rail siding extension | Marchagee | | | | | Y | SG | Enables longer trains from Marchagee. | Y | | | | |
| 3 | Rail North-East of Northam | | | | | | | | | | | | | |

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| Project Number and Priority | Project Name | Location | Project Type | | | | | Rail Gauge | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|--|----------------------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|---|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | | Grain | Hay | Livestock | Lime | Fertiliser |
| 3.1 | Beacon/Kalannie to Avon rail line reconstruction | Beacon/Kalannie to Northam | Y | | | | | SG | Up to 26.3 per cent more payload per train (50 per cent more at Beacon). Enables longer trains and optimises subsequent rail siding extensions. Benefits for Beacon, Kalannie, Cadoux, Beacon, Kalannie and Dowerin. Road to rail benefit for Goodlands. Rail line asset replacement. | Y | | | | |
| 3.1.1 | Dowerin - new rail siding | Dowerin 2 | | | | | Y | SG | Enables longer trains from Dowerin, via a consolidation of receival sites. | Y | | | | |
| 3.1.2 | Cadoux - rail siding extension | Cadoux | | | | | Y | SG | Enables longer trains from Cadoux. | Y | | | | |
| 3.1.3 | Goomalling - rail siding extension | Goomalling | | | | | Y | SG | Enables longer trains from Goomalling. | Y | | | | |
| 3.2 | Mukinbudin to Amery rail line reconstruction | Mukinbudin to Amery | Y | | | | | SG | Up to 26.3 per cent more payload per train. Enables longer trains. Optimises subsequent rail siding extensions. Benefits for Mukinbudin, Bencubbin, Koorda, Wyalkatchem. Road to rail benefits for Bonnie Rock. Rail line asset replacement. | Y | | | | |
| 3.2.1 | Wyalkatchem - rail siding extension | Wyalkatchem | | | | | Y | SG | Enables longer trains from Wyalkatchem. | Y | | | | |
| 3.2.2 | Koorda - rail siding extension | Koorda | | | | | Y | SG | Enables longer trains from Koorda. | Y | | | | |
| 3.2.3 | Bencubbin - rail siding extension | Bencubbin | | | | | Y | SG | Enables longer trains from Bencubbin. | Y | | | | |
| 3.3 | McLevie to Goomalling rail line reconstruction | McLevie to Goomalling | Y | | | | | SG | Up to 50 per cent more payload per train. Enables longer trains. Optimises subsequent rail siding extensions. Benefits for McLevie, Ballidu, Konnongorring and Goomalling. Rail line asset replacement. | Y | | | | |

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| Project Number and Priority | Project Name | Location | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | | |
|-----------------------------|--|---------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|----------------------|--|-------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | Rail Gauge | Grain | Hay | Livestock | Lime | Fertiliser |
| 3.3.1 | Ballidu - rail siding extension | Ballidu | | | | | Y | SG | Enables longer trains from Ballidu. | Y | | | | |
| 3.3.2 | Konnongorring - rail siding extension | Konnongorring | | | | | Y | SG | Enables longer trains from Konnongorring. | Y | | | | |
| 4 | Albany to Hyden/Newdegate | | | | | | | | | | | | | |
| 4.1 | Albany Port - accommodation of longer trains | Albany Port | | Y | | | | NG | Allows for optimal rail siding length extensions at Broomehill, Mirambeena, Cranbrook, Wagin, Dumbleyung, Pingaring and Kukerin. Future proofs Albany port train lengths from population growth in Albany city and Great Southern. Immediate benefits for Lake Grace, Newdegate and Hyden by allowing longer trains from these receival sites. | Y | Y | | | |
| 4.2 | Broomehill - new rail siding | Broomehill | | | | | Y | NG | Enables three trains to operate simultaneously on the rail line. Critical new passing loop between Wagin and Cranbrook. | Y | | | | |
| 4.3 | Mirambeena - rail spur extension | Mirambeena | | | | Y | | NG | New rail connection allows grain to be transported to/from Mirambeena by rail. | Y | | | | |
| 4.4 | Mirambeena - new intermodal facility | Mirambeena | | | Y | | | NG | New rail connection allows hay to be transported to Albany Port loaded in sea containers. | Y | Y | | | |
| 4.5 | Cranbrook - rail siding extension | Cranbrook | | | | | Y | NG | Enables longer trains from Cranbrook. | Y | | | | |
| 4.6 | Wagin - rail siding extension | Wagin | | | | | Y | NG | Enables longer trains from Wagin. | Y | | | | |
| 4.7 | Dumbleyung - rail siding extension | Dumbleyung | | | | | Y | NG | Enables longer trains from Dumbleyung. | Y | | | | |

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|-----------------------------|--|---------------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|--|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | | Grain | Hay | Livestock | Lime | Fertiliser |
| 4.8 | Pingaring - rail siding extension | Pingaring | | | | | Y | NG | Enables longer trains from Pingaring. | Y | | | | |
| 4.9 | Kukerin - rail siding extension | Kukerin | | | | | Y | NG | Enables longer trains from Kukerin. | Y | | | | |
| 5 | Brookton to Northam | | | | | | | | | | | | | |
| 5.1 | Northam to Brookton rail line reconstruction | Northam to Brookton | Y | | | | | DG | Up to 26.3 per cent more payload per train. Enables longer trains, optimises subsequent rail siding extensions at York and Brookton. Road to rail benefits for Bulyee, Corrigin, Kondinin, Wickepin and Kulin. | Y | Y | | | |
| 5.2 | Brookton - rail siding extension | Brookton | | | | | Y | SG | Enables longer trains from Brookton. | Y | | | | |
| 5.3 | Brookton - new intermodal facility | Brookton | | | Y | | | SG | New rail connection allows hay to be transported to Fremantle Port loaded in sea containers. | | Y | | | |
| 5.4 | York - rail siding extension | York | | | | | Y | SG | Enables longer trains from York. | Y | | | | |
| 5.5 | York - new intermodal facility | York | | | Y | | | SG | New rail connection allows hay to be transported to Fremantle Port loaded in sea containers. | | Y | | | |
| 6 | Northam to Southern Cross | | | | | | | | | | | | | |
| 6.1 | Kellerberrin - rail siding extension | Kellerberrin | | | | | Y | SG | Enables longer trains from Kellerberrin. Benefits road to rail from Trayning and Shackleton. | Y | | | | |
| 6.2 | Cunderdin - rail siding extension | Cunderdin | | | | | Y | SG | Enables longer trains from Cunderdin. Benefits road to rail from Quairading and Wyalkatchem. | Y | | | | |

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| Project Number and Priority | Project Name | Location | Project Type | | | | | Rail Gauge | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|--|-------------------|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|---|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | | Grain | Hay | Livestock | Lime | Fertiliser |
| 6.3 | Bodallin - rail siding extension | Bodallin | | | | | Y | SG | Enables longer trains from Bodallin. Benefits road to rail from Dulyalbin. | Y | | | | |
| 6.4 | Merredin - rail siding extension | Merredin | | | | | Y | SG | Enables longer trains from Merredin. Benefits road to rail from Muntadgin, Bruce Rock, Narembeen and Mount Walker. | Y | | | | |
| 6.5 | Tammin - rail siding extension | Tammin | | | | | Y | SG | Enables longer trains from Tammin. | Y | | | | |
| 6.6 | Meckering - rail siding extension | Meckering | | | | | Y | SG | Enables longer trains from Meckering. | Y | | | | |
| 6.7 | Doodlakine - rail siding extension | Doodlakine | | | | | Y | SG | Enables longer trains from Doodlakine. Benefits road to rail from Bruce Rock, Narembeen and Mount Walker. | Y | | | | |
| 6.8 | Southern Cross - rail siding extension | Southern Cross | | | | | Y | SG | Enables longer trains from Southern Cross. | Y | | | | |
| 7 | Miling to Toodyay | | | | | | | | | | | | | |
| 7.1 | Miling to Toodyay rail line reconstruction | Miling to Toodyay | Y | | | | | SG | Up to 50 per cent more payload per train. Enables longer trains and optimises subsequent rail siding extensions. Benefits for Miling, Piawaning and Calingiri. Rail line asset replacement. | Y | Y | | | |

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| Project Number and Priority | Project Name | Location | Project Type | | | | | Rail Gauge | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|---|--|--------------------------|-----------------------|-------------------------|-------------------------------|---------------------------------|------------|--|-------------------------|-----|-----------|------|------------|
| | | | Rail Line Reconstruction | Longer trains at port | New Intermodal Terminal | New and/or Extended Rail Spur | New and/or Extended Rail Siding | | | Grain | Hay | Livestock | Lime | Fertiliser |
| 7.2 | Calingiri - rail siding extension | Calingiri | | | | | Y | SG | Enables longer trains from Calingiri. | Y | | | | |
| 7.3 | Piawaning - rail siding extension | Piawaning | | | | | Y | SG | Enables longer trains from Piawaning. | Y | | | | |
| 8 | Esperance to Salmon Gums | | | | | | | | | | | | | |
| 8.1 | Esperance Port - accommodation of longer trains | Esperance Port | | Y | | | | SG | Allows for optimal rail siding length extensions at all up-country grain receival sites along rail line. Future proofs Esperance Port train lengths from population growth in Esperance. Immediate benefits for Salmon Gums and Grass Patch by allowing longer trains from these receival sites. Assists with economic viability of connecting Shark Lake to rail. | Y | | | | |
| 8.2 | Grass Patch - rail siding extension | Grass Patch | | | | | Y | SG | Enables longer trains from Grass Patch. | Y | | | | |
| 8.3 | Shark Lake - new rail spur | Shark Lake | | | | Y | | SG | Connects Shark Lake to rail. | Y | | | | |
| 8.4 | Salmon Gums - rail siding extension | Salmon Gums | | | | | Y | SG | Enables longer trains from Salmon Gums. | Y | | | | |
| 9 | Mullewa to Perenjori Rail | | | | | | | | | | | | | |
| 9.1 | Tilley Junction to Perenjori rail line | Tilley Junction to Perenjori rail line | Y | | | | | NG | Up to 31.25 per cent more payload per train. Enables longer trains. Optimises subsequent rail siding extensions. Benefits: Perenjori and Morawa. | Y | | | | |
| 9.2 | Mullewa - rail siding extension | Mullewa | | | | | Y | NG | Enables longer trains from Mullewa. | | | | | |
| 9.3 | Morawa - rail siding extension | Morawa | | | | | Y | NG | Enables longer trains from Morawa. | | | | | |

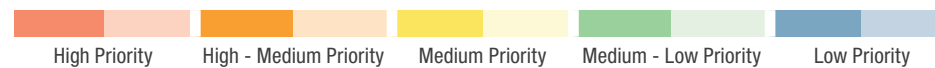
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| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|--------------------------------|----------------------------------|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|---|-------------------------|-----|-----------|------|------------|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser |
| ROAD PROJECTS | | | | | | | | | | | | | | | |
| STATE ROADS | | | | | | | | | | | | | | | |
| 10 | Roads to Esperance Port | | | | | | | | | | | | | | |
| 10.1 | Brookton Hwy | Lake Varley to Ravensthorpe | 394 | 519.5 | Y | Y | Y | | | Enables longer trucks from Lake Varley, Lake King, Mount Madden to Ravensthorpe. Reduces truck numbers along route. | Y | | | Y | |
| 10.2 | South Coast Hwy | West River to Ravensthorpe | 204.1 | 290.59 | Y | Y | Y | | Y | Enables longer trucks from West River to Ravensthorpe. Reduces truck numbers along route. | Y | | | Y | |
| 10.3 | South Coast Hwy | Ravensthorpe to Esperance | 290.59 | 474.44 | Y | Y | Y | | Y | Enables longer trucks from Ravensthorpe and Munglinup to Esperance Port. Reduces truck numbers along route. | Y | | | Y | |
| 10.4 | Coolgardie-Esperance Hwy | Salmon Gums to Esperance | 264 | 370.82 | | Y | Y | | Y | Improves efficiency and safety into Esperance Port. | Y | | | Y | |
| 11 | Roads to Albany Port | | | | | | | | | | | | | | |
| 11.1 | Albany Lake Grace Rd | Albany to Pingrup (Chester Pass) | 0 | 179.86 | Y | Y | Y | Y | Y | Enables longer trucks from Pingrup, Mindarabin, Gnowangerup, Borden and Kojaneerup to Albany Port. | Y | | | Y | |
| 11.2 | Broomehill-Jerramungup Rd | Gnowangerup to Ongerup | 35.37 | 90 | Y | Y | Y | | | Enables longer trucks from Gnowangerup and Ongerup to Borden. | Y | | | Y | |

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| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|----------------------------|--------------------------------|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|--|-------------------------|-----|-----------|------|------------|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser |
| 11.3 | Kojonup-Pingrup Rd | Nyabing to Pingrup | 99.88 | 123.33 | Y | Y | | Y | | Enables longer trucks from/to Nyabing to Pingrup. | Y | | | | Y |
| 11.4 | South Coast Hwy | Albany to Jacup | 0 | 204.1 | Y | Y | Y | | Y | Enables longer trucks from Jacup, Gairdner and Wellstead to Albany Port. | Y | | | | Y |
| 11.5 | Albany Hwy | Arthur River to Kojonup | 197.3 | 254.4 | Y | Y | Y | | | Improves safety of route. | Y | | | | Y |
| 11.6 | Albany Hwy | Kojonup to Albany Port | 254.4 | 404.2 | Y | Y | Y | | Y | Enables longer trucks from Kojonup and Cranbrook to Albany Port. | Y | | | | Y |
| 11.7 | Northam Cranbrook Rd | Wagin to Cranbrook (to Albany) | 216.1 | 352.2 | | Y | Y | Y | Y | Improves safety of route. | Y | | | | Y |
| 11.8 | Albany Lake Grace Rd | Pingrup to Lake Grace | 179.86 | 229.03 | | Y | | | | Improves safety of route. | Y | | | | Y |
| 11.9 | Broomehill-Gnowangerup Rd | Broomehill to Gnowangerup | 0 | 35.37 | | Y | Y | | | Improves safety of route. | Y | | | | |
| 11.10 | Donnybrook Kojonup | Qualeup to Kojonup | 122.14 | 157.2 | | Y | Y | | | Improves safety of route. | Y | | | | |
| 11.11 | Formby South Rd | Gnowangerup to M001 | 0 | 48.78 | | Y | | | | Improves safety of route. | Y | | | | |
| 11.12 | Gorge Rock - Lake Grace Rd | Kulin to Lake Grace | 31.97 | 101.68 | | Y | | | | Improves safety of route. | Y | | | | Y |
| 11.13 | Kojonup Pingrup Rd | Katanning to Nyabing | 40.09 | 99.88 | | Y | | | | Improves safety of route. | Y | | | | |
| 11.14 | Collie Lake King Rd | Wagin to Lake King | 156.43 | 390.4 | | Y | Y | | | Improves safety of route. | Y | Y | | | |

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| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|-----------------------|---|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|--|-------------------------|-----|-----------|------|------------|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser |
| 12 | Roads to Perth | | | | | | | | | | | | | | |
| 12.1 | Indian Ocean Drive | Lancelin Road to K.W. Rd | 66.3 | 68.3 | Y | Y | | | | Enables longer trucks carting lime from Lancelin crossing Indian Ocean Drive to Brand Hwy. | Y | | Y | Y | Y |
| 12.2 | Brand Hwy | Great Northern Hwy to Orange Springs Road | 2 | 74.5 | Y | Y | Y | | | Enables longer trucks carting lime from Lancelin to Perth and on to the southern Wheatbelt and Great Southern. | Y | | Y | Y | Y |
| 12.3 | Albany Hwy | Narrakine (Williams) to Perth | 26.8 | 158.7 | Y | Y | Y | | | Enables longer trucks from Williams to Perth. | Y | | | | Y |
| 12.4 | Albany Hwy | Narrakine to Arthur River | 158.7 | 197.3 | | Y | | | | Improves connectivity between Albany and Perth. | Y | | | | Y |
| 12.5 | Brookton Hwy | Brookton to Perth | 13.87 | 111.33 | Y | Y | Y | Y | | Enables longer trucks from Perth to Brookton. | Y | | | | Y |
| 12.6 | Brookton Hwy | Brookton to Hyden | 111.33 | 315.22 | | Y | | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.7 | Brookton Hwy | Hyden to Lake Varley | 315.22 | 394 | | Y | | | Y | Improves safety of route. | Y | | | | |
| 12.8 | Williams Narrogin Hwy | Williams to Narrogin | 0 | 26.7 | Y | Y | Y | | | Enables longer trucks from Wickepin to Perth. | Y | | | | Y |
| 12.9 | Narrogin-Kondinin Rd | Narrogin to Wickepin (to Perth) | 31.6 | 76.5 | Y | Y | Y | | | Enables longer trucks from Wickepin to Perth. | Y | | | | Y |
| 12.10 | Northam Cranbrook Rd | Northam to York | 0 | 33.98 | | Y | | Y | | Improves safety and efficiency of route. | Y | | | | |
| 12.11 | Northam Cranbrook Rd | York to Beverley | 33.98 | 66.74 | | Y | | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.12 | Northam Cranbrook Rd | Beverley to Brookton | 66.74 | 99.28 | | Y | Y | Y | | Improves safety and efficiency of route. | Y | | | | |
| 12.13 | Northam Cranbrook Rd | Brookton to Narrogin | 99.28 | 166.63 | | Y | Y | | | Improves safety of route. | Y | Y | | | |
| 12.14 | Northam Cranbrook Rd | Narrogin Link Road | 166.63 | 172.51 | | Y | Y | | | Improves safety of route. | Y | | | | |

INFRASTRUCTURE PROJECT LIST



NG = Narrow Gauge, SG = Standard Gauge and DG = Dual Gauge

| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|----------------------------|-------------------------------|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|--|-------------------------|-----|-----------|------|------------|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser |
| 12.15 | Northam Cranbrook Rd | Narrogin to Wagin | 172.51 | 216.16 | | Y | Y | | | Improves safety of route. | Y | | | | |
| 12.16 | Gorge Rock - Lake Grace Rd | M052 to Kulin | 0 | 31.97 | | Y | | | | Improves safety of route. | Y | | | | |
| 12.17 | Chidlow - York Rd | Chidlow to York | 0 | 46.02 | | Y | Y | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.18 | York - Merredin Rd | York to Quairading | 0 | 66.94 | | Y | Y | | Y | Improves safety of route. | Y | Y | | | |
| 12.19 | York - Merredin Rd | Quairading to Bruce Rock | 66.94 | 139.95 | | Y | | | Y | Improves safety of route. | Y | | | | |
| 12.20 | Great Eastern Hwy | Lakes to Northam | 47.02 | 89.14 | | Y | Y | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.21 | Great Eastern Hwy | Northam to Merredin | 89.14 | 256.78 | Y | Y | Y | | Y | Improves safety of route. | Y | | | | |
| 12.22 | Great Eastern Hwy | Merredin to Bodallin | 256.78 | 316.94 | Y | | Y | Y | y | Improves safety and efficiency of route. | Y | | | | |
| 12.23 | Great Eastern Hwy | Bodallin to Southern Cross | 316.94 | 366.08 | Y | Y | | Y | | Improves safety and efficiency of route. | Y | | | | |
| 12.24 | Marvel Loch | Southern Cross to Marvel Loch | 0 | 32.94 | | Y | | | | Improves safety of route. | Y | | | | |
| 12.25 | York - Merredin Rd | Bruce Rock to Merredin | 139.95 | 193.85 | | Y | | | | Improves safety of route. | Y | | | | |
| 12.26 | Northam Pithara Rd | Northam to Goomalling | 3.38 | 48.08 | | Y | Y | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.27 | Northam Pithara Rd | Goomalling to Ballidu | 48.08 | 129.12 | | Y | | | Y | Improves safety of route. | Y | | | | |
| 12.28 | Northam Pithara Rd | Ballidu to GNH | 129.12 | 152.4 | | Y | | Y | | Improves safety of route. | Y | | | | |
| 12.29 | Goomalling - Merredin Rd | Goomalling to Merredin | 0 | 171.93 | | Y | | | | Improves safety of route. | Y | | | | |
| 12.30 | Toodyay Rd (H033) | Roe Hwy to Gidgegannup | 0 | 22.07 | | | Y | Y | | Improves safety and efficiency of route. | Y | | | | |

INFRASTRUCTURE PROJECT LIST



NG = Narrow Gauge, SG = Standard Gauge and DG = Dual Gauge

| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | |
|-----------------------------|--------------------------------|-------------------------------|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|---|-------------------------|-----|-----------|------|------------|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser |
| 12.31 | Toodyay Rd (M026) | Gidgegannup to Toodyay | 0 | 40.46 | | Y | Y | Y | Y | Improves safety and efficiency of route. | Y | | | | |
| 12.32 | Goomalling - Toodyay Rd | Toodyay to Goomalling | 0 | 48.02 | | Y | Y | | Y | Improves safety of route. | Y | | | | |
| 12.33 | Great Northern Hwy | Mucea to Chittering | 36.86 | 51.1 | | Y | Y | | | Improves safety and efficiency of route. | Y | | | | |
| 12.34 | Great Northern Hwy | Chittering to New Norcia | 51.1 | 112.2 | | | | Y | | Bindoon Western Bypass(SLK 51 to 112) currently under development. Improves safety and efficiency of route. | Y | | | | |
| 12.35 | Great Northern Hwy | New Norcia to Wubin | 112.2 | 253.45 | | Y | Y | | Y | Improves safety and efficiency of route. | | | | | |
| 12.36 | Midlands Rd | GNH to Moora | 0 | 22 | | Y | Y | | | Improves safety of route. | Y | Y | | | |
| 12.37 | Midlands Rd | Moora to Marchagee | 22 | 91 | | Y | Y | | Y | Improves safety of route. | Y | | Y | | |
| 12.38 | Wongan Hills Calingiri Rd | Wongan Hills to Calingiri | 0 | 39.74 | | Y | | | | Improves safety of route. | Y | | | | |
| 12.39 | Wongan Hills Calingiri Rd | Calingiri to GNH (New Norcia) | 39.74 | 68.82 | | Y | | | | Improves safety of route. | Y | | | Y | |
| 12.40 | York - Merredin Rd | GNH to Moora | 0 | 86.26 | | Y | Y | | Y | Improves safety of route. | Y | | | Y | |
| 13 | Roads to Geraldton Port | | | | | | | | | | | | | | |
| 13.1 | North West Coastal Hwy | Geraldton to Binu | 0 | 89.2 | Y | Y | Y | Y | Y | Enables longer trucks from Northampton and Binu. | Y | Y | Y | | Y |
| 13.2 | Brand Hwy | Dongara to Geraldton | 297.3 | 368 | Y | Y | Y | | Y | Enables longer trucks from Dongara to Geraldton Port. | Y | | | | Y |
| 13.3 | Midlands Rd | Marchagee to Dongara | 91 | 262.23 | Y | Y | Y | | Y | Enables longer trucks from Marchagee, Coorow, Arrino, Carnamah and Mingenew to Dongara. | Y | | | | Y |
| 13.4 | Moonyoonooka Yuna Rd | Yuna to Geraldton Port | 0 | 72.2 | Y | Y | Y | | | Enables longer trucks from/to Yuna. | Y | | | | Y |
| 13.5 | Geraldton - Mount Magnet Rd | Mullewa to Geraldton Port | 0 | 96 | | Y | Y | | Y | Improves safety of route. | Y | | Y | | Y |

INFRASTRUCTURE PROJECT LIST



NG = Narrow Gauge, SG = Standard Gauge and DG = Dual Gauge

| Project Number and Priority | Road Name | Location | Straight Line Kilometre (SLK) From | SLK To | Project Type | | | | | Comments on benefits | Supply Chains Benefited | | | | | |
|---|------------------------|-----------------------|------------------------------------|--------|------------------------|----------|---------------------------|--|------------------------------|---|-------------------------|-----|-----------|------|------------|--|
| | | | | | 42m PBS access to Port | Widening | New Passing Opportunities | Upgrade / reconstruction / realignment | Replace / strengthen bridges | | Grain | Hay | Livestock | Lime | Fertiliser | |
| 13.6 | Wubin Mullewa Rd | Morawa to Mullewa | 126.87 | 221.46 | | Y | | | | Improves safety of route. | Y | | | | Y | |
| 13.7 | Wubin Mullewa Rd | Latham to Morawa | 0 | 126.87 | | Y | | | | Improves safety of route. | Y | | | | Y | |
| 13.8 | Geraldton Walkaway Rd | Geraldton to Walkaway | 0 | 23.62 | | Y | | | | Improves safety of route. | Y | | | | | |
| 13.9 | Mingenew Morawa Rd | Mingenew to Morawa | 0 | 58.75 | | Y | Y | | Y | Improves safety of route. | Y | | | | | |
| LOCAL ROADS (SECONDARY ROAD FREIGHT NETWORK) | | | | | | | | | | | | | | | | |
| 14 | Wheatbelt (North West) | | | | | | | | | Refer to Appendix 5 and Appendix 6 for detailed prioritisation of local road upgrades | | | | | | |
| 15 | Mid West | | | | | | | | | | | | | | | |
| 16 | Wheatbelt (South West) | | | | | | | | | | | | | | | |
| 17 | Great Southern | | | | | | | | | | | | | | | |
| 18 | Wheatbelt (South East) | | | | | | | | | | | | | | | |
| 19 | Goldfields-Esperance | | | | | | | | | | | | | | | |
| 20 | Wheatbelt (North East) | | | | | | | | | | | | | | | |

Main Roads WA will further review in more detail the improvements required to ensure PBS 42m access on the relevant routes (flagged with a Y (yes) in the State Roads Table)



APPENDIX 3 - STATE ROAD FREIGHT ROUTE PRIORITISATION METHODOLOGY

State Road Freight Route Prioritisation Multi Criteria Analysis (MCA) Methodology

Since the release of the draft Strategy in June 2019, the project team has considered feedback received from a broad range of respondents. As a result of the comprehensive feedback provided, the final Strategy contains a more comprehensive list of road project priorities, including widening and passing lanes, and considers projects currently in Main Roads WA strategies, including realignments and bridge work.

The State Road Freight Route Prioritisation process is a high-level framework, based on the following three main priorities (listed in order of priority):

1. Initial RARF priority for proposed PBS 42m combinations (Draft Revitalising Agricultural Region Freight Strategy released for public comment in June 2019)
2. Main Roads priorities for pavement and seal widening
3. Main Roads priorities for overtaking lanes

Other documents and inputs considered to support the revised priorities include:

- Main Roads priorities for 2020-21 State budget funding consideration;
- Roads that have potential projects identified for upgrading, reconstruction and/or realignment; and
- Roads that potentially have sub-standard bridges.

1. RARF's priority for proposed PBS 42m combinations

The draft release of RARF Strategy focused on the relevant rail network and local government roads, and included only the key State roads identified as desirable 42m PBS routes. These priorities were derived from a high-level assessment of grain tonnes benefitted by allowing larger vehicle combinations to operate on suitable routes.

2. Main Roads priorities for pavement and seal widening

Variables considered for pavement and seal widening are derived from a link and site-specific level. The variables considered are found in the table below.

| Variable | Description and Purpose |
|---------------------------|---|
| Road Category | The volume of cars and tonnage on a given link defines Road Category. This is a key indicator to demand. |
| RAV | Restricted Access Vehicles can have large or small configurations. The larger the configuration of heavy vehicle, the greater width required to achieve standards. |
| Traffic Volume | Also referred to as Annual Average Daily Traffic (AADT), traffic volume suggests the importance of demand to factor in non-commercial vehicles. |
| Route Importance | Derived based on the categorisation of a route as being "strategic" for WA and nationally, or of a lesser importance. |
| Road Trauma Risk | A ranking of road sections based on their historical road safety record. |
| Seal Width | Roads with narrow seal width fail to accommodate large configuration heavy vehicles and high traffic volumes. This measure determines the extent of work required for a given road. |
| Carriageway Configuration | Roads with narrow pavement width fail to accommodate large configuration heavy vehicles and high traffic volumes. This measure determines the extent of work required for a given road. |

| Variable | Description and Purpose |
|-------------------------|---|
| Traffic Mix | Roads with a high traffic mix suggest that heavy vehicles are likely to be encountered by non-commercial vehicles, which leads to higher overtaking requirements. Adding seal and pavement widening to these roads allows for a safer road network. |
| Edge Break Potential | Edge break potential is derived from existing seal and pavement widths including geometry. Roads with rapidly changing horizontal geometry may require additional width to prevent further damage to the seal and pavement. |
| Upcoming Maintenance | Alignment with upcoming maintenance will allow for optimal expenditure if upgrades and maintenance are appropriately aligned and timed. |
| Road Quality/Smoothness | Understanding the existing road quality reinforces the needs for a particular section of road. Roads with higher road quality are likely to have a greater remaining life and therefore upgrade work can be prolonged. |

3. Overtaking Lanes

Variables considered for new overtaking lanes are derived from a route, link and site-specific levels. The variables considered are found in the table below.

| Variable | Description and Purpose |
|--------------------------|---|
| Road Category | The volume of cars and tonnage on a given link defines Road Category. This is a key indicator to demand. |
| RAV | Restricted Access Vehicles can have large or small configurations. The larger the configuration of heavy vehicle, the greater width required to achieve standards. |
| Traffic Volume | Also referred to as Annual Average Daily Traffic (AADT), traffic volume suggests the importance of demand to factor in non-commercial vehicles. |
| Route Importance | Derived based on the categorisation of a route as being "strategic" for WA and nationally, or of a lesser importance. |
| Road Trauma | A ranking of road sections based on their historical road safety record. |
| Overtaking Opportunities | Roads with lack of sufficient sight distance and overtaking opportunities on roads with sufficient delays warrant new overtaking lanes for heavy vehicles and non-commercial vehicles to safely pass one another. |
| Delays | When driving on busy roads with heavy vehicles where speed differential is significant, the likelihood of overtaking increases. Implementing overtaking lanes facilitates an efficient and safe network for users to drive on. |
| Traffic Mix | Roads with a high traffic mix suggest that heavy vehicles are likely to be encountered by non-commercial vehicles, which leads to higher overtaking requirements. Adding seal and pavement widening to these roads allows for a safer road network. |
| Upcoming Maintenance | Alignment with upcoming maintenance will allow for optimal expenditure if upgrades and maintenance are appropriately aligned and timed. |

APPENDIX 4 - SECONDARY FREIGHT ROUTE PRIORITISATION METHODOLOGY

Secondary Freight Route Prioritisation MCA Methodology

Demand Variable - How much is a road being used for agricultural purposes?

| Scoring Type | Score Weighting | Reasoning |
|--------------|------------------------|--|
| Tonnage | Total Tonnage / 25,000 | The demand score, based on the assessed road tonnage, is the most influential contributor to the scoring as it underlines the purpose of the project. Roads with greater tonnage loads will receive higher priority. |

Impact Variable - If upgrades are applied, what variables will be impacted?

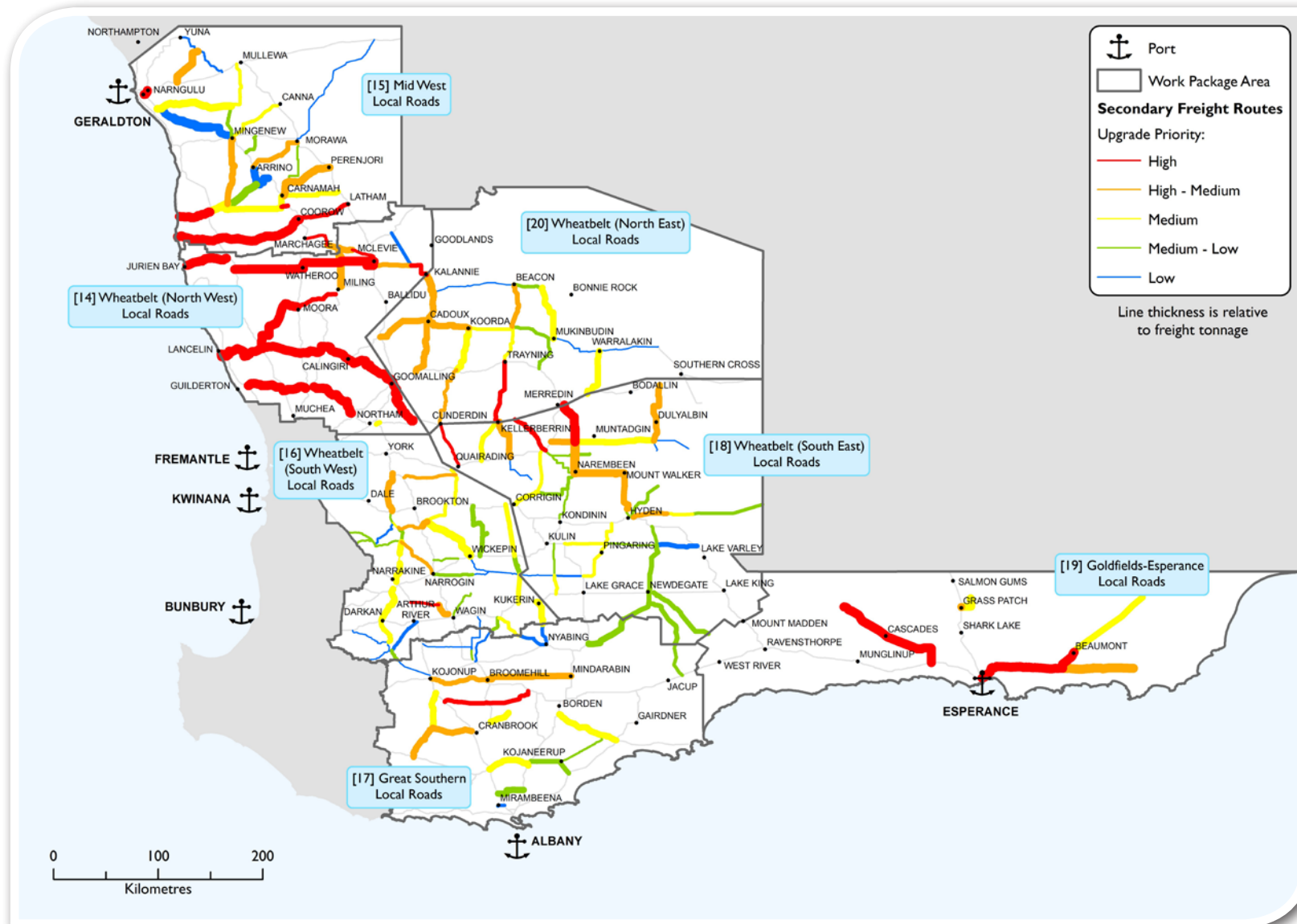
| Scoring Type | Score Weighting | Reasoning |
|---|--|--|
| Road Safety Management System (ROSMA) value | 0 – No “killed or seriously injured” (KSI) incidents 0.25 – Low KSI 0.5 – Low-Med KSI 1 – Med KSI 1.5 – High-Med KSI 2 – High KSI | ROSMA is commonly used by Main Roads to assess road safety. |
| Seal and Pavement Width | 1 – Linearly relates to percentage of road below RAV 7 requirement for seal and pavement width respectively | Seal width and pavement data has equal weighting to road safety. This aligns with the heavy vehicle standards and is due to the objective nature of the data. If a road is below the RAV 7 seal and pavement width standards, upgrade work is required on the particular road. |
| Tonnage Increase per vehicle | 0 – no change 0.25 = 1-5 T 0.5 = 6-10 T 1.0 = 11-20 T 1.5 = 21-25 T 2.0 = 25T plus | The assessed tonnage is an assessment of the potential increase in freight carrying capacity per Heavy Vehicle to upgrade from the routes, load limit to an N7.3 axle loading (85.4 tonnes). |

| | | |
|-------------------------------------|--|--|
| Rail Compatibility Score | -1 = Detrimental 0 = No Impact 1 = 1 rail site 2 = 2 rail sites 3 = 3 rail sites | The rail compatibility score is a reflection of the compatibility of road upgrades and their interaction with rail facilities. A negative score reflects a detrimental effect on rail if the road is upgraded. A positive score reflects whether a proposed upgrade of the route will have a positive impact/ improved access to multiple rail receivable points. Zero score reflects that the route under consideration has no impact on rail. |
| Annual Average Daily Traffic (AADT) | 1 – AADT ≥ 500 0.8 – AADT ≥ 400 0.6 – AADT ≥ 300 | AADT is generally a strong indicator towards supporting road upgrades and maintenance. However, due to the low volumes across all roads and inconsistencies with traffic counting the priority scoring has only a small influence. Also tonnages and grain hauling traffic volumes which occur at peak cartage times are not weighted in AADT. |
| Total Impact Score | 10 | The maximum impact score is a sum of all criteria. |

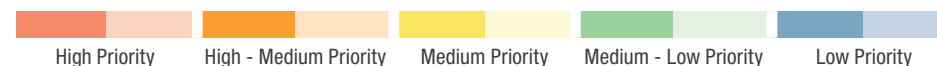
The total score is a multiple of the demand and impact score. Prioritisation has been broken into five bands (20 per cent each) mapped from high to low. Therefore, potential upgrades will be allocated to roads with high tonnage and poor road condition.



APPENDIX 5 - SECONDARY ROAD FREIGHT NETWORK MAP

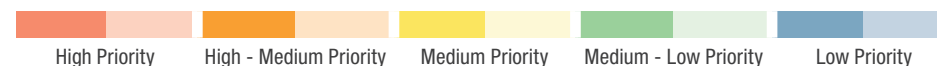


APPENDIX 6 - SECONDARY ROAD FREIGHT NETWORK LIST



| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|--|--------------------------------------|
| WNW15 | [14] Wheatbelt North West Local Roads | K.W. Road, Sappers Road, Cowalla Road, Orange Spring Road | Gingin |
| WNW14 | [14] Wheatbelt North West Local Roads | Old Ledge Point Road, Lancelin Road | Gingin |
| WNW18 | [14] Wheatbelt North West Local Roads | Calingiri - New Norcia Road | Victoria Plains |
| WSE5 | [18] Wheatbelt South East Local Roads | Merredin - Naremben Road, Merredin - Naremben Road | Merredin / Naremben |
| WNW19 | [14] Wheatbelt North West Local Roads | Toodyay - Bindi Bindi Road, Goomalling - Calingiri Road | Victoria Plains / Goomalling |
| WNW20 | [14] Wheatbelt North West Local Roads | Goomalling - Meckering Road, Dunlop Street | Goomalling / Cunderdin |
| WNW21 | [14] Wheatbelt North West Local Roads | Gingin Brook Road | Gingin |
| WNW5 | [14] Wheatbelt North West Local Roads | Jurien Road | Dandaragan |
| WNW8 | [14] Wheatbelt North West Local Roads | Bell Road, Locke Road, Dalwallinu West Road | Dalwallinu |
| ESP3 | [19] Goldfields-Esperance Local Roads | Fisheries Road | Esperance |
| WNW6 | [14] Wheatbelt North West Local Roads | Watheroo Road, Watheroo West Road | Dandaragan / Moora |
| MWG25 | [15] Mid West Local Roads | Coorow - Green head Road | Coorow |
| WNW7 | [14] Wheatbelt North West Local Roads | Railway Road, Carot Well Road | Moora / Dalwallinu |
| MWG26 | [15] Mid West Local Roads | Coorow - Green head Road | Coorow |
| WNW3 | [14] Wheatbelt North West Local Roads | Miling North Road | Dalwallinu |
| WNW22 | [14] Wheatbelt North West Local Roads | Dewars Pool - Bindoon Road, Toodyay - Bindi Bindi Road, Telegraph Road, Harper Road, Anzac Ave, Clinton Street, Fiennes Street, Hamersley Street | Chittering / Toodyay |
| WNW16 | [14] Wheatbelt North West Local Roads | Mogumber Road West | Gingin / Victoria Plains |
| WSE4 | [18] Wheatbelt South East Local Roads | Doodlakine - Bruce Rock Road | Kellerberrin / Merredin / Bruce Rock |
| WNW17 | [14] Wheatbelt North West Local Roads | Mogumber - Yarawindah Road | Victoria Plains |
| WNW25 | [14] Wheatbelt North West Local Roads | Honeycomb Road, Mooliabeenie Road | Gingin / Chittering |
| ESP5 | [19] Goldfields-Esperance Local Roads | Cascade Road | Esperance |
| WNE19 | [20] Wheatbelt North East Local Roads | Twine Street, Kellerberrin - Bencubbin Road, Dowding Street | Trayning / Kellerberrin |
| MWG1 | [15] Mid West Local Roads | Moonyoonooka - Narngulu Road | City of Greater Geraldton |
| WNW12 | [14] Wheatbelt North West Local Roads | Dandaragan Road, Rowses Road, Moora - Caro Road, Dandaragan Street | Dandaragan / Moora |
| WSW17 | [16] Wheatbelt South West Local Roads | Moorumbine Road, Wickepin - Pingelly Road | Pingelly / Wickepin |
| WSE1 | [18] Wheatbelt South East Local Roads | Cubbine Street, Quairading Road, Quarading - Cunderin Road | Cunderdin / Quairading |
| MWG24 | [15] Mid West Local Roads | Eneabba - Coolimba Road | Carnamah |

SECONDARY ROAD FREIGHT NETWORK LIST



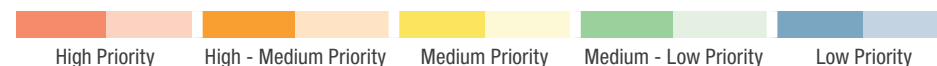
| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|--|---|
| WNW13 | [14] Wheatbelt North West Local Roads | Berkshire Valley Road, Moora - Miling Road | Moora |
| WNE13 | [20] Wheatbelt North East Local Roads | Dowerin - Kalannie Road, Stewart Street, Redding Road | Wongan - Ballidu / Dowerin |
| MWG29 | [15] Mid West Local Roads | Winchester West Road | Carnamah |
| MWG27 | [15] Mid West Local Roads | Coorow - Latham Road | Coorow / Perenjori |
| WSW2 | [16] Wheatbelt South West Local Roads | York - Williams Road | Beverley / Brookton |
| WNW11 | [14] Wheatbelt North West Local Roads | Dalwallinu - Kalannie Road, Roche Street | Dalwallinu |
| WNE14 | [20] Wheatbelt North East Local Roads | Town Access Road, Railway Terrace, Aitken Road, Wyalkatchem - Koorda Road, Honour Ave | Wyalkatchem / Koorda |
| GTS15 | [17] Great Southern Local Roads | Tambellup West Road | Kojonup / Broomehill - Tambellup |
| MWG28 | [15] Mid West Local Roads | Buntine - Marchagee Road, Thomas Road, Wubin - Gunyidi Road | Coorow / Dalwallinu |
| ESP6 | [19] Goldfields-Esperance Local Roads | Cascade Road | Esperance |
| GTS16 | [17] Great Southern Local Roads | Gnowangerup - Tambellup Road | Broomehill - Tambellup / Gnowangerup |
| WNW1 | [14] Wheatbelt North West Local Roads | Wubin - Gunyidi Road, Nugadong West Road | Dalwallinu |
| ESP1 | [19] Goldfields-Esperance Local Roads | Parmango Road | Esperance |
| WSW40 | [16] Wheatbelt South West Local Roads | Tarwonga East Road, Piesseville - Tarwonga Road, Ballagin Road | Williams / Narrogin / West Arthur / Wagin |
| MWG9 | [15] Mid West Local Roads | First North Road, Bunney Road, Tomkins Road, Carey Road, Scott Road, Mingenew South Road | Carnamah / Three Springs / Mingenew |
| WSW16 | [16] Wheatbelt South West Local Roads | Review Street, Aldersyde - Pingelly Road | Pingelly |
| WNW2 | [14] Wheatbelt North West Local Roads | Miling North Road | Coorow / Dalwallinu |
| GTS17 | [17] Great Southern Local Roads | Yeriminup Road, Cranbrook - Frankland Road | Cranbrook |
| ESP4 | [19] Goldfields-Esperance Local Roads | Fisheries Road | Esperance |
| GTS12 | [17] Great Southern Local Roads | Broomehill - Kojonup Road, Journal Street | Kojonup / Broomehill - Tambellup |
| MWG22 | [15] Mid West Local Roads | Carnamah - Perenjori Road | Carnamah / Perenjori |
| WNE8 | [20] Wheatbelt North East Local Roads | Cadoux - Koorda Road, Koorda - Wongan Hills Road | Wongan - Ballidu / Dowerin / Koorda |
| WSE3 | [18] Wheatbelt South East Local Roads | Kellerberrin - Shackleton Road, Mather Road | Kellerberrin / Bruce Rock |
| WSE13 | [18] Wheatbelt South East Local Roads | Merredin - Naremben Road | Naremben |
| WNW4 | [14] Wheatbelt North West Local Roads | Miling North Road | Moora |
| WSE21 | [18] Wheatbelt South East Local Roads | Mt Walker Road | Naremben |

SECONDARY ROAD FREIGHT NETWORK LIST



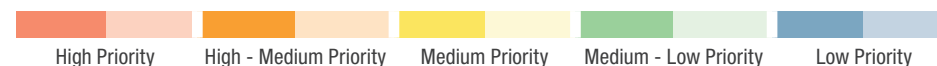
| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|---|--|
| WSE14 | [18] Wheatbelt South East Local Roads | Merredin - Narembeen Road, Currall Street | Narembeen |
| MWG21 | [15] Mid West Local Roads | Carnamah - Perenjori Road | Carnamah |
| WNE7 | [20] Wheatbelt North East Local Roads | Manmanning Road, Oliver Road, Hospital Road, Wongan Hills - Cadoux Road | Wongan - Ballidu |
| WSE6 | [18] Wheatbelt South East Local Roads | Moorine South Road | Yilgarn |
| GTS19 | [17] Great Southern Local Roads | Shamrock Road, Cranbrook - Frankland Road, Frankland - Rocky Gully Road | Cranbrook / Plantagenet |
| WSW1 | [16] Wheatbelt South West Local Roads | Vincent Street, Morbinning Road, Old Beverley West Road | Beverley / Quairading |
| WNE1 | [20] Wheatbelt North East Local Roads | Dowerin - Kalannie Road | Dalwallinu / Wongan - Ballidu |
| WSE7 | [18] Wheatbelt South East Local Roads | Cramphorne Road | Bruce Rock / Narembeen |
| MWG4 | [15] Mid West Local Roads | Nabawa Road East, Valentine Road | Chapman Valley / City of Greater Geraldton |
| WNW9 | [14] Wheatbelt North West Local Roads | Dalwallinu - Kalannie Road | Dalwallinu |
| GTS13 | [17] Great Southern Local Roads | Norrish Road, Tie Line Road | Broomehill - Tambellup / Gnowangerup |
| WNE18 | [20] Wheatbelt North East Local Roads | Cunderdin - Wyalkatchem Road, Baxter Road, Olympic Ave, Carter Drive | Wyalkatchem / Cunderdin |
| WNE4 | [20] Wheatbelt North East Local Roads | Bencubbin - Beacon Road | Mount Marshall |
| ESP7 | [19] Goldfields-Esperance Local Roads | Logan Street, Tom Starceovich V.C. Road | Esperance |
| WSE20 | [18] Wheatbelt South East Local Roads | Mt Walker - Hyden Road | Narembeen / Kondinin |
| MWG19 | [15] Mid West Local Roads | Dudawa Road, Morawa - Three Springs Road | Three Springs / Morawa |
| WSW22 | [16] Wheatbelt South West Local Roads | Wandering - Narrogin Road, Narrakine Road | Wandering / Cuballing / Narrogin |
| WNE2 | [20] Wheatbelt North East Local Roads | Dowerin - Kalannie Road | Wongan - Ballidu |
| WSW15 | [16] Wheatbelt South West Local Roads | Wandering North Road, North Bannister - Pingelly Road, Park Street, Review Street, Paragon Street | Pingelly |
| WSE33 | [18] Wheatbelt South East Local Roads | East Hyden Bin Road | Kondinin |
| MWG10 | [15] Mid West Local Roads | Eneabba - Carnamah Road | Carnamah |
| MWG5 | [15] Mid West Local Roads | Walkaway - Nangetty Road | City of Greater Geraldton |
| WSE2 | [18] Wheatbelt South East Local Roads | Scott Street, Kellerberrin - Yoting Road | Kellerberrin / Quairading |
| WSE41 | [18] Wheatbelt South East Local Roads | North Lake Grace - Karlgarin Road | Kulin |
| MWG14 | [15] Mid West Local Roads | Eneabba - Three Springs Road | Carnamah |
| MWG15 | [15] Mid West Local Roads | Eneabba - Three Springs Road | Carnamah |

SECONDARY ROAD FREIGHT NETWORK LIST



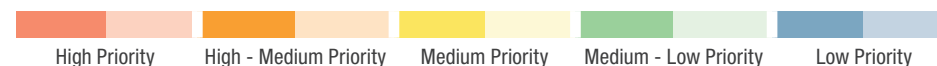
| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|--|------------------------------|
| WSE46 | [18] Wheatbelt South East Local Roads | Tarin Rock Road, Tarin Rock Road North | Dumbleyung |
| WSW7 | [16] Wheatbelt South West Local Roads | Aldersyde North Road, Brookton - Kweda Road, Aldersyde - Pingelly Road | Brookton / Pingelly |
| WSW4 | [16] Wheatbelt South West Local Roads | Dangin - Mears Road | Quairading / Brookton |
| GTS14 | [17] Great Southern Local Roads | Shamrock Road | Kojonup / Cranbrook |
| MWG11 | [15] Mid West Local Roads | Coalseam Road, Nanekine Road | Mingenew / Morawa |
| WSE30 | [18] Wheatbelt South East Local Roads | North Lake Grace - Karlgarin Road, Pederah West Road, Pederah East Road, Church Road | Kulin / Kondinin |
| WSW9 | [16] Wheatbelt South West Local Roads | Rabbit Proof Fence Road, Rabbit Proof Fence Road North | Corrigin / Kulin / Wickiepin |
| WNE9 | [20] Wheatbelt North East Local Roads | Haig Street, Koorda - Bullfinch Road | Koorda / Mount Marshall |
| WSE22 | [18] Wheatbelt South East Local Roads | Corrigin - Bruce Rock Road | Corrigin |
| WNE17 | [20] Wheatbelt North East Local Roads | Warralakin Road, Leach Road, Rabbit Proof Fence Road | Westonia |
| MWG7 | [15] Mid West Local Roads | Mingenew - Mullewa Road | City of Greater Geraldton |
| WSW43 | [16] Wheatbelt South West Local Roads | Bennett Street, Bahr Road, Dumbleyung - Nyabing Road | Dumbleyung |
| WSE11 | [18] Wheatbelt South East Local Roads | Corrigin - Bruce Rock Road | Bruce Rock / Corrigin |
| WSW33 | [16] Wheatbelt South West Local Roads | Darkan South Road, Darkan Road | West Arthur |
| WSW44 | [16] Wheatbelt South West Local Roads | Bennett Street, Scadden Street, Kukerin South Road, Adams Road | Dumbleyung |
| WSW21 | [16] Wheatbelt South West Local Roads | York - Williams Road | Wandering / Williams |
| GTS24 | [17] Great Southern Local Roads | Borden Boxwood Hill Road | Jerramungup |
| WSW32 | [16] Wheatbelt South West Local Roads | Williams - Darkan Road | Williams / West Arthur |
| WNE15 | [20] Wheatbelt North East Local Roads | Kellerberrin - Bencubbin Road, Sutherland Street | Mount Marshall / Trayning |
| GTS18 | [17] Great Southern Local Roads | Pootenup Road | Broomehill - Tambellup |
| GTS23 | [17] Great Southern Local Roads | Borden - Bremer Bay Road, Borden - Boxwood Hill Road | Gnowangerup / Jerramungup |
| WSE36 | [18] Wheatbelt South East Local Roads | Kulin - Holt Rock Road | Kulin |
| WSW14 | [16] Wheatbelt South West Local Roads | York - Williams Road | Pingelly |
| WNW24 | [14] Wheatbelt North West Local Roads | Yilgarn Ave | Northam |
| ESP8 | [19] Goldfields-Esperance Local Roads | Tom Starceвич V.C. Road | Esperance |
| GTS20 | [17] Great Southern Local Roads | Woogenellup Road | Plantagenet |
| WSE40 | [18] Wheatbelt South East Local Roads | North Lake Grace - Karlgarin Road | Lake Grace |
| WSE8 | [18] Wheatbelt South East Local Roads | Cramphorne Road | Naremben |

SECONDARY ROAD FREIGHT NETWORK LIST



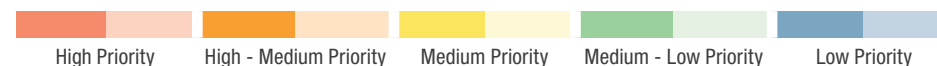
| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|---|--|
| WSE34 | [18] Wheatbelt South East Local Roads | Hyden - Norseman Road | Kondinin |
| WNE6 | [20] Wheatbelt North East Local Roads | Mukinbudin - Wialki Road | Mount Marshall / Mukinbudin |
| MWG20 | [15] Mid West Local Roads | Bunjil - Carnamah Road | Carnamah / Perenjori |
| WSW31 | [16] Wheatbelt South West Local Roads | Rabbit Proof Fence Road South, Kulin - Dumbleyung Road | Kulin / Dumbleyung |
| ESP2 | [19] Goldfields-Esperance Local Roads | Parmango Road | Esperance |
| WSW3 | [16] Wheatbelt South West Local Roads | Dangin - Mears Road | Quairading |
| WSE50 | [18] Wheatbelt South East Local Roads | Old Ravensthorpe Road, Taylor Road | Lake Grace |
| WNE16 | [20] Wheatbelt North East Local Roads | McGregor Road, Nungarin North Road | Mukinbudin / Nungarin |
| WSE43 | [18] Wheatbelt South East Local Roads | Newdegate North Road, Pingaring - Varley Road, Allen Rocks Road | Lake Grace / Kulin |
| MWG23 | [15] Mid West Local Roads | Inering Road, Perenjori - Three Springs Road, Boundary Road, Hill Road, Morawa South Road | Carnamah, Three Springs, Perenjori, Morawa |
| MWG6 | [15] Mid West Local Roads | Mingenew - Mullewa Road | Mingenew |
| WSW8 | [16] Wheatbelt South West Local Roads | Bulyee Road, Bullaring Road, Lomos South Road, Wickepin - Corrigin Road | Corrigin, Pingelly, Wickepin |
| GTS9 | [17] Great Southern Local Roads | Newdegate - Pingrup Road | Kent |
| WNE10 | [20] Wheatbelt North East Local Roads | Koorda - Bullfinch Road, Strugnell Street | Mount Marshall / Mukinbudin |
| WSE26 | [18] Wheatbelt South East Local Roads | Kondinin - Narembeen Road, Hyden - Mount Walker Road | Narembeen, Kondinin |
| WSE12 | [18] Wheatbelt South East Local Roads | Bruce Rock - Narembeen Road, Longhurst Street | Bruce Rock, Narembeen |
| WSE23 | [18] Wheatbelt South East Local Roads | Corrigin - Narembeen Road | Corrigin, Narembeen |
| MWG13 | [15] Mid West Local Roads | Yandanooka North East Road | Mingenew |
| WSW10 | [16] Wheatbelt South West Local Roads | Rabbit Proof Fence Road South, Dudinin Road, Rabbit Proof Fence Road | Kulin / Wickepin |
| WSE39 | [18] Wheatbelt South East Local Roads | Tarin Rock North Road | Kulin |
| WSE49 | [18] Wheatbelt South East Local Roads | Magenta Road | Lake Grace |
| WSW20 | [16] Wheatbelt South West Local Roads | York - Williams Road | Wandering |
| WSW41 | [16] Wheatbelt South West Local Roads | Wagin - Wickepin Road, Jaloran Road | Wagin |
| WSW23 | [16] Wheatbelt South West Local Roads | Cuballing East Road | Cuballing / Wickepin |
| WSW19 | [16] Wheatbelt South West Local Roads | Wandering - Pingelly Road, Wandering - Narrogin Road | Wandering |
| WSE19 | [18] Wheatbelt South East Local Roads | Kondinin - Narembeen Road, Latham Road | Narembeen |
| WSW42 | [16] Wheatbelt South West Local Roads | Katanning - Dumbleyung Road | Dumbleyung |

SECONDARY ROAD FREIGHT NETWORK LIST



| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|--|------------------------------|
| MWG16 | [15] Mid West Local Roads | Eneabba - Three Springs Road | Carnamah, Three Springs |
| WSE35 | [18] Wheatbelt South East Local Roads | Hyden - Norseman Road | Kondinin |
| WSW6 | [16] Wheatbelt South West Local Roads | York - Williams Road | Brookton / Pingelly |
| WSE37 | [18] Wheatbelt South East Local Roads | Kulin - Holt Rock Road | Kulin |
| WSW5 | [16] Wheatbelt South West Local Roads | North Bannister - Wandering Road | Wandering |
| GTS21 | [17] Great Southern Local Roads | Chillinup Road | Plantagenet / Albany |
| WSW24 | [16] Wheatbelt South West Local Roads | Herald Street, Narrogin - Harrismith Road | Narrogin |
| WSW11 | [16] Wheatbelt South West Local Roads | Bannister Road | Wandering |
| WSE32 | [18] Wheatbelt South East Local Roads | Allen Rocks Road | Kondinin / Kulin |
| GTS25 | [17] Great Southern Local Roads | Kojaneerup West Road | Albany |
| WSW39 | [16] Wheatbelt South West Local Roads | Moodiarrup - Changerup Road | West Arthur |
| WNE5 | [20] Wheatbelt North East Local Roads | Burakin - Wialki Road | Mount Marshall |
| WSW12 | [16] Wheatbelt South West Local Roads | North Bannister - Wandering Road | Wandering |
| WSE16 | [18] Wheatbelt South East Local Roads | Wogarl West Road | Bruce Rock / Narembeen |
| WSE47 | [18] Wheatbelt South East Local Roads | Newdegate - Pingrup Road | Lake Grace |
| WSE48 | [18] Wheatbelt South East Local Roads | Newdegate - Pingrup Road | Lake Grace |
| GTS22 | [17] Great Southern Local Roads | Chillinup Road | Albany / Gnowangerup |
| WSE17 | [18] Wheatbelt South East Local Roads | Wogarl West Road | Narembeen |
| GTS26 | [17] Great Southern Local Roads | Settlement Road | Plantagenet / Albany |
| GTS5 | [17] Great Southern Local Roads | Trimmer Road | Katanning |
| WSE29 | [18] Wheatbelt South East Local Roads | Lovering Road, Woollocutty Soak Road | Kondinin / Narembeen |
| GTS10 | [17] Great Southern Local Roads | Lake Magenta Road | Kent / Jerramungup |
| MWG17 | [15] Mid West Local Roads | Arrino South Road | Three Springs |
| MWG18 | [15] Mid West Local Roads | Eneabba - Three Springs Road | Three Springs |
| GTS4 | [17] Great Southern Local Roads | Trimmer Road | Woodanilling |
| WSW13 | [16] Wheatbelt South West Local Roads | North Wandering Road, Kubbine Road | Wandering |
| GTS8 | [17] Great Southern Local Roads | Kukerin Road, Adams Road | Kent |
| GTS6 | [17] Great Southern Local Roads | Katanning - Dumbleyung Road, Oxley Road | Katanning / Woodanilling |

SECONDARY ROAD FREIGHT NETWORK LIST



| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|---|--|
| WNW10 | [14] Wheatbelt North West Local Roads | Rabbit Proof Fence Road | Dalwallinu |
| WNE3 | [20] Wheatbelt North East Local Roads | Burakin - Wialki Road | Wongan - Ballidu / Koorda / Mount Marshall |
| MWG3 | [15] Mid West Local Roads | Yuna - Tenindewa Road | Chapman Valley / City of Greater Geraldton |
| WSE45 | [18] Wheatbelt South East Local Roads | Kuender West Road, West Kuender Road | Kulin / Lake Grace |
| GTS3 | [17] Great Southern Local Roads | Trimmer Road, Tie Line Road, Harvey Road, Ballaying Road, Ballaying South Road | Woodanilling / Wagin |
| GTS7 | [17] Great Southern Local Roads | Dumbleyung - Nyabing Road | Kent |
| MWG2 | [15] Mid West Local Roads | Yuna - Tenindewa Road | Chapman Valley |
| WSE10 | [18] Wheatbelt South East Local Roads | Babakin North West Road, Old Beverley Road, Trehenes Road, Shackleton - Bilbarin Road | Bruce Rock |
| WNE11 | [20] Wheatbelt North East Local Roads | Koorda - Bullfinch Road | Mukinbudin / Nungarin / Westonia |
| GTS11 | [17] Great Southern Local Roads | Darkan - Kojonup Road | Kojonup |
| WSW36 | [16] Wheatbelt South West Local Roads | Arthur River - Dinninup Road | West Arthur |
| WSW37 | [16] Wheatbelt South West Local Roads | Arthur River - Dinninup Road | West Arthur |
| WSW29 | [16] Wheatbelt South West Local Roads | Wagin - Wickepin Road | Narrogin |
| WSE8 | [18] Wheatbelt South East Local Roads | Cramphorne Road | Yilgarn |
| WSE9 | [18] Wheatbelt South East Local Roads | Cramphorne Road | Yilgarn |
| WSW38 | [16] Wheatbelt South West Local Roads | Arthur River - Dinninup Road | West Arthur |
| WSE38 | [18] Wheatbelt South East Local Roads | Kulin - Holt Rock Road | Kulin |
| WSE44 | [18] Wheatbelt South East Local Roads | 101 Gate East Road | Kulin |
| MWG12 | [15] Mid West Local Roads | Morawa - Yalgoo Road | Morawa / Yalgoo |
| WSW34 | [16] Wheatbelt South West Local Roads | Bowelling - Duranillin Road | West Arthur |
| WSW26 | [16] Wheatbelt South West Local Roads | Wickepin - Harrismith Road, Stock Route Road | Wickepin |
| WSW25 | [16] Wheatbelt South West Local Roads | Collins Street, Wickepin - Harrismith Road | Wickepin / Narrogin |
| WSE28 | [18] Wheatbelt South East Local Roads | South Kumminin East Road | Narembeen |
| WNE12 | [20] Wheatbelt North East Local Roads | Koorda - Bullfinch Road | Westonia / Yilgarn |
| WSE15 | [18] Wheatbelt South East Local Roads | Moorine South Road | Yilgarn |
| WSE18 | [18] Wheatbelt South East Local Roads | Wogarl East Road | Narembeen |

SECONDARY ROAD FREIGHT NETWORK LIST



| Project ID | Project Package | Route includes sections of the following roads | Local Government(s) Affected |
|------------|---------------------------------------|---|--|
| WSE24 | [18] Wheatbelt South East Local Roads | South Kumminin East Road | Narembeen |
| WSE25 | [18] Wheatbelt South East Local Roads | Bendering Road | Corrigin / Kondinin |
| WSE27 | [18] Wheatbelt South East Local Roads | Bendering East Road, Whyte Road, Worland Road | Kondinin |
| WSW18 | [16] Wheatbelt South West Local Roads | Wickepin - Corrigin Road, Yealering South East Road, Eighty Six Gate Road, Heffernan Road | Corrigin / Wickepin |
| WSE31 | [18] Wheatbelt South East Local Roads | Aylmore Road | Kulin / Kondinin |
| WSW27 | [16] Wheatbelt South West Local Roads | Helm Road, Tincurrin North Road | Wickepin |
| WSE42 | [18] Wheatbelt South East Local Roads | Lake Bidy Road, Bidy - Buniche Road, Aylmore Road | Lake Grace, Kulin |
| WSW28 | [16] Wheatbelt South West Local Roads | Narrogin - Harrismith Road, Yilminning Road, Toolibin North Road | Narrogin / Wickepin |
| WSW30 | [16] Wheatbelt South West Local Roads | Tincurrin North Road | Wickepin |
| WSW35 | [16] Wheatbelt South West Local Roads | Darkan Road | West Arthur |
| GTS1 | [17] Great Southern Local Roads | Robinson West Road | Woodanilling |
| GTS2 | [17] Great Southern Local Roads | Robinson East Road | Woodanilling |
| GTS27 | [17] Great Southern Local Roads | Down Road, Down West Road | Albany |
| MWG8 | [15] Mid West Local Roads | Allanooka Springs Road, Depot Hill Road | City of Greater Geraldton / Mingenew / Irwin |

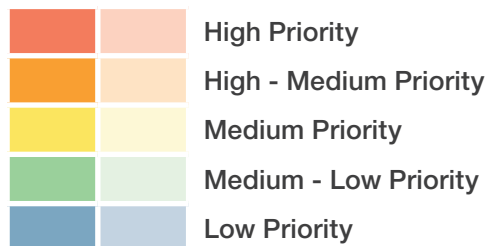
APPENDIX 7 - RESPONDING TO CHANGE (REGION BY REGION)

Project packages have been identified by region and mode, with reference to the target areas for each of the responses in Part Two of the Strategy.

Whilst the proposed packages of works have been mapped and explained below, these are identified as a means of meeting the objectives of the Strategy in the medium term, and have no funding or timing commitments attached to them. Business cases to identify funding requirements and the timing of each project will be subject to standard approval processes.

The full prioritised project list can be found at **Appendix 2**.

Prioritisation has been divided into five bands, mapped from high to low and colour coded accordingly, as per the legend below. For each region, key infrastructure project packages have been listed in priority order and then numerically. It is anticipated that high priority packages will be the first candidates for further investigation, with the constituent projects being subject to a full cost benefit analysis.



Secondary Road Freight Network

Main Roads has undertaken a prioritisation process for local government-managed roads in the Project Area that connect with State and National highways, by conducting a multi-criteria analysis with demand and impact variables multiplied together to determine a road rating.¹ The roads are grouped by score into the five bands, from high to low priority.

The detailed methodology can be found in **Appendix 4**.

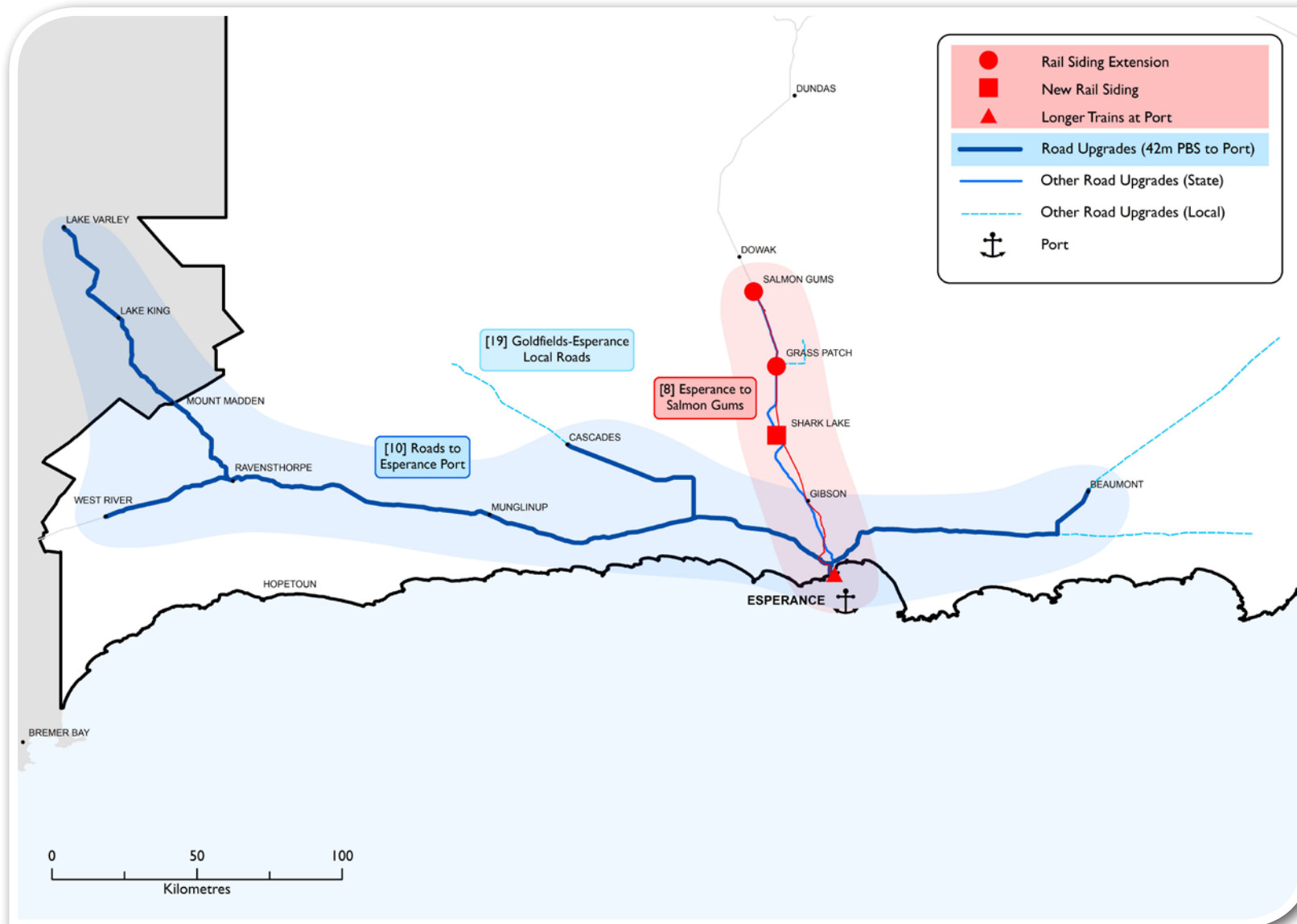
The analysis is based on work undertaken to define the 4,400 kilometre Wheatbelt Secondary Freight Route Network, which was identified through a two-year process between local governments responsible for the Wheatbelt road network, Regional Road Groups and Main Roads.

Secondary Road Freight Network improvements have been bundled for each region and are listed in the Project List collectively as a medium priority (noting roads within each package have different levels of priority).

A map of all secondary roads across the Project Area, along with individual priorities is available in **Appendix 5** and a full road list is provided in **Appendix 6**.

¹ Department of Primary Industries and Regional Development, <https://www.agric.wa.gov.au/western-australias-agriculture-and-food-sector>

PROJECT PACKAGES - GOLDFIELDS-ESPERANCE REGION



PROJECT PACKAGES - GOLDFIELDS-ESPERANCE REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.

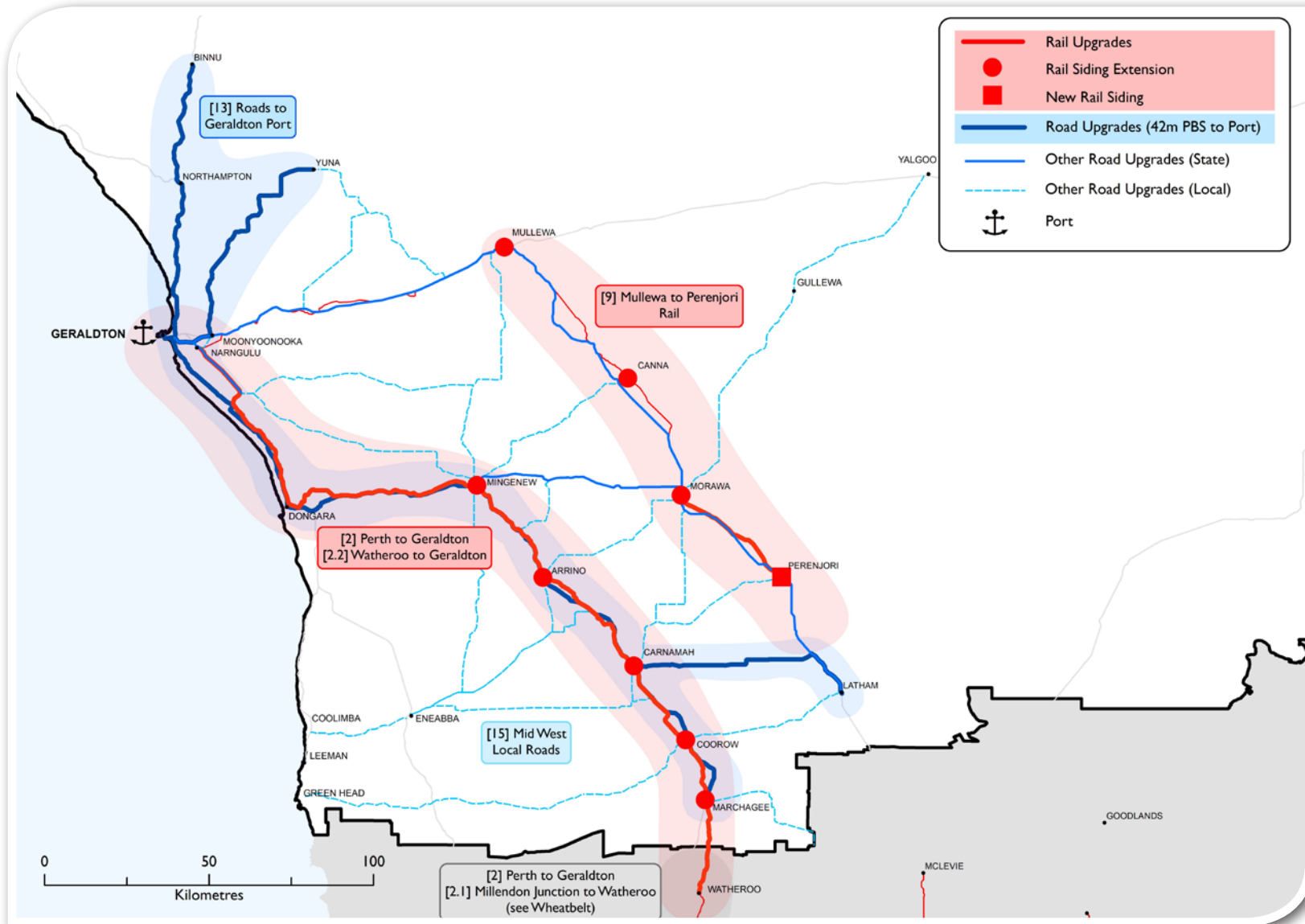


| Package | Project | Project Name | Location |
|---------|---|---|-----------------------------|
| 10 | Roads to Esperance Port [targeted road network investment, increased heavy vehicle access] Upgrades to the State road network will improve ageing infrastructure, alleviating safety concerns and improving interactions with other traffic. Higher RAV access (up to a PBS 42 metre vehicle) may be permitted on specified roads to Esperance Port once the infrastructure has been assessed as being of sufficient capacity and capability to accommodate the longer combinations. Other works include general safety upgrades, widening and overtaking lanes. Refer to Appendix 5 and 6 for detailed prioritisation of local roads. | | |
| | 10.1 | Brookton Hwy | Lake Varley to Ravensthorpe |
| | 10.2 | South Coast Hwy | West River to Ravensthorpe |
| | 10.3 | South Coast Hwy | Ravensthorpe to Esperance |
| | 10.4 | Coolgardie-Esperance Hwy | Salmon Gums to Esperance |
| 8 | Esperance to Salmon Gums Rail [rail improvements] There is only one rail line in the Goldfields-Esperance region, which carries iron ore from the Yilgarn region, and grain from Salmon Gums through Grass Patch and Shark Lake to Esperance Port. To improve efficiency of the rail network, rail siding extensions should be investigated at all four sites, with the priority on a rail siding at Esperance Port. | | |
| | 8.1 | Esperance Port - accommodation of longer trains | Esperance Port |
| | 8.2 | Grass Patch - rail siding extension | Grass Patch |
| | 8.3 | Shark Lake - new rail spur | Shark Lake |
| | 8.4 | Salmon Gums - rail siding extension | Salmon Gums |
| 19 | Goldfields-Esperance Local Roads [targeted road network investment] Upgrades to the local road network will improve ageing infrastructure, alleviating safety concerns and improving interactions with other traffic. Refer to Appendix 5 and 6 for detailed prioritisation of local roads. | | |

Other initiatives

Improved planning around the Chadwick region (on the outskirts of Esperance, and where CBH has a road-only receival site) will assist industry in its forward planning, mitigate encroachment on port access corridors and ensure timely road upgrades when required

PROJECT PACKAGES - MID WEST REGION



PROJECT PACKAGES - MID WEST REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.

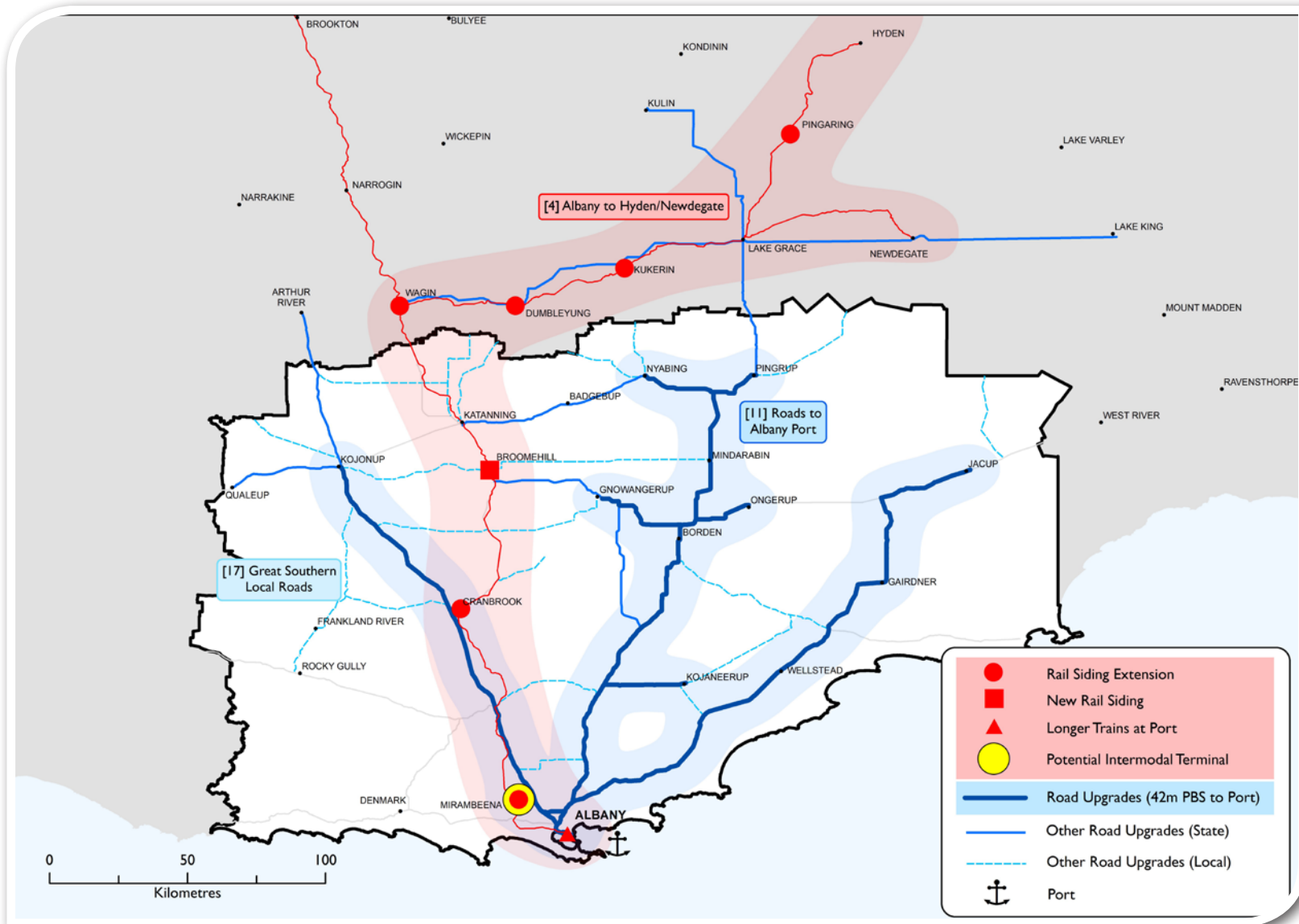


| Package | Project | Project Name | Location |
|---------|---|--|--|
| 2.2 | Perth to Geraldton Rail: Watheroo to Geraldton [rail improvements] The rail network into Geraldton Port is reasonably well-utilised for transporting grain and iron ore. Constructing a dual gauge track up to 19 tonne axle load; (NB: currently 16 tonne axle load south of Mingenew and 19 tonne between Mingenew and Narngulu), will improve transport efficiency, in conjunction with rail siding extensions at Mingenew, Carnamah, Arrino, Coorow and Marchagee. | | |
| | 2.2 | Watheroo to Geraldton rail line reconstruction | Watheroo to Geraldton |
| | 2.2.1 | Mingenew - rail siding extension | Mingenew |
| | 2.2.2 | Carnamah - rail siding extension | Carnamah |
| | 2.2.3 | Arrino - rail siding extension | Arrino |
| 13 | Roads to Geraldton Port [targeted road network investment, increased heavy vehicle access] Granting access to PBS 42 metre vehicles from Geraldton to Binu and Yuna, will increase road transport productivity north of Geraldton. Higher RAV access can be considered on some local roads, following investment. PBS 42 metre vehicle access between Geraldton and Marchagee / Latham (excluding grain) will lower the cost of transporting fertiliser and other inputs to grain production centres. Refer to Appendix 5 and 6 for detailed prioritisation of local roads. | | |
| | 13.1 | North West Coastal Hwy | Geraldton to Binu |
| | 13.2 | Brand Hwy | Dongara to Geraldton |
| | 13.3 | Midlands Rd | Marchagee to Dongara |
| | 13.4 | Moonyoonooka Yuna Rd | Yuna to Geraldton Port |
| | 13.5 | Geraldton - Mount Magnet Rd | Mullewa to Geraldton Port |
| | 13.6 | Wubin Mullewa Rd | Morawa to Mullewa |
| | 13.7 | Wubin Mullewa Rd | Latham to Morawa |
| | 13.8 | Geraldton Walkaway Rd | Geraldton to Walkaway |
| | 13.9 | Mingenew Morawa Rd | Mingenew to Morawa |
| 15 | Mid West Local Roads [targeted road network investment] Defining the Secondary Road Freight Network in the Mid West has identified many local roads requiring upgrades. Improvements to an entire route will facilitate connected and continuous RAV access, providing cost savings to grain, fertiliser, lime and general freight. Regardless of network access, any upgrades will deliver improved road safety. Refer to Appendix 5 and 6 for detailed prioritisation of local roads. | | |
| 9 | Mullewa to Perenjori Rail [rail improvements] Rail upgrade between Tilley Junction and Perenjori to a 21 tonne axle load standard (currently 16 tonne axle load south of Tilley Junction) will facilitate additional payload on trains from Perenjori to Geraldton Port. This will improve connectivity of the rail network. Rail siding extensions at Mullewa, Morawa and Canna will improve rail productivity. At present, there is no rail connectivity at Perenjori North. A new rail siding at this site will facilitate improved access to the rail network. | | |
| | 9.1 | Tilley Junction to Perenjori rail line | Tilley Junction to Perenjori rail line |
| | 9.2 | Mullewa - rail siding extension | Mullewa |
| | 9.3 | Morawa - rail siding extension | Morawa |
| | 9.4 | Perenjori - rail siding extension | Perenjori |
| | 9.5 | Canna - rail siding extension | Canna |

Other initiatives

Explore opportunities to backload fertiliser on the rail network; review the procedures and routes for concessional loading and exemptions for livestock transport.

PROJECT PACKAGES - GREAT SOUTHERN REGION



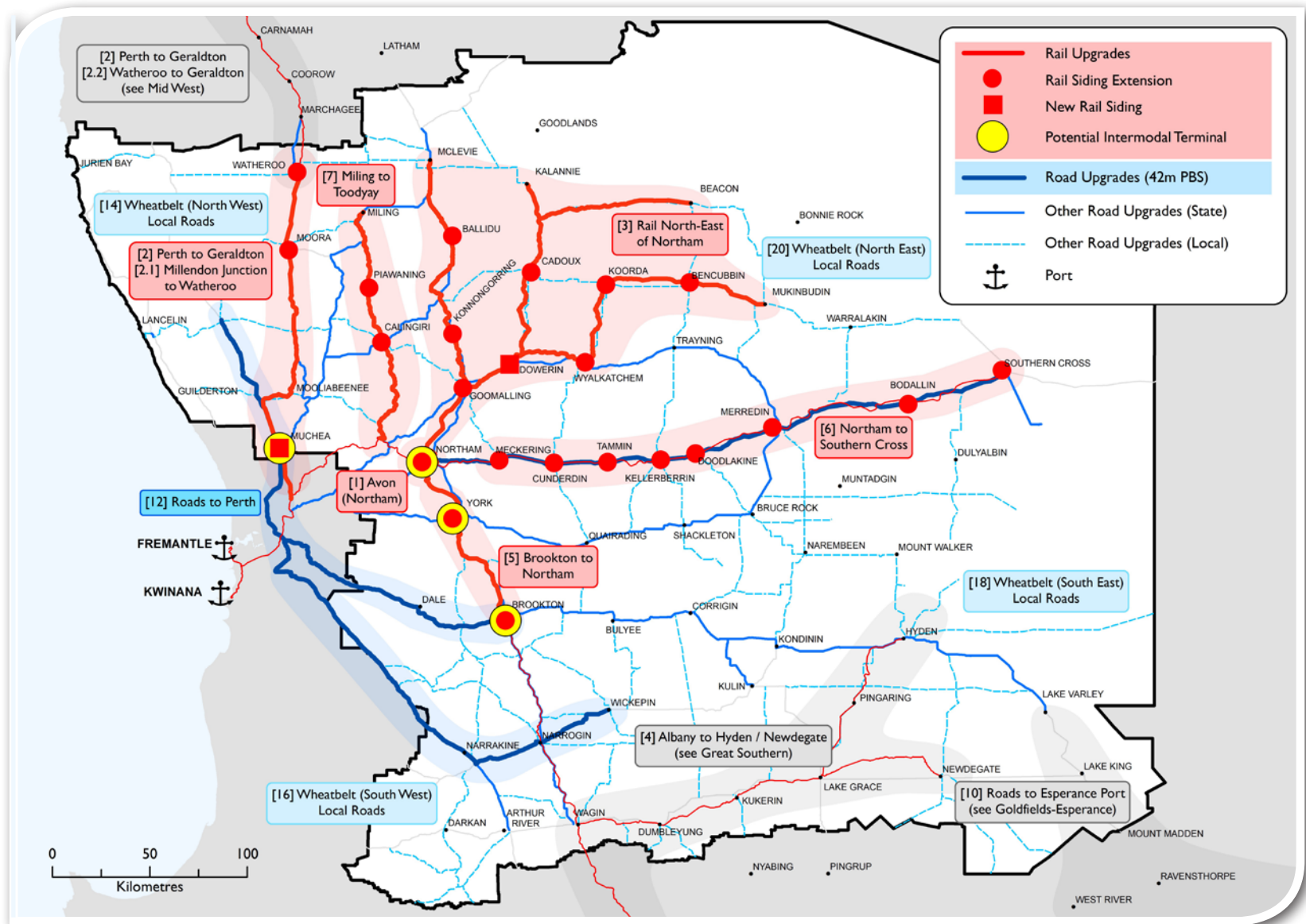
PROJECT PACKAGES - GREAT SOUTHERN REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location |
|---------|--|--|----------------------------------|
| 4 | Albany to Hyden/Newdegate Rail [rail improvements, establish intermodal terminals] In the Great Southern region the rail network is well-utilised for grain transport, and woodchips are transported between Mirambeena and Albany Port on rail. There are several constraints on the rail network, some of which can be overcome through minor works by the rail infrastructure manager and some which require more significant improvements. The more significant rail projects have been grouped, including rail siding extensions at Albany, Cranbrook, Wagin, Dumbleyung, Pingaring and Kukerin. This package incorporates a proposal to build new rail sidings at Broomehill and to the grain receival site at Mirambeena, to increase accessibility to the rail network. Given a rail siding already exists in Mirambeena to the woodchip facility, a larger intermodal facility can be developed in this strategic industrial area, reducing the amount of road traffic into Albany Port and providing access to CBH's grain receival site. Replacing the current short rail spur at Broomehill with a new purpose built rail siding will allow trains to load without shunting or blocking the main line, enabling the passing of trains and improving rail capacity. | | |
| | 4.1 | Albany Port - accommodation of longer trains | Albany Port |
| | 4.2 | Broomehill - new rail siding | Broomehill |
| | 4.3 | Mirambeena - rail spur extension | Mirambeena |
| | 4.4 | Mirambeena - new intermodal facility | Mirambeena |
| | 4.5 | Cranbrook - rail siding extension | Cranbrook |
| | 4.6 | Wagin - rail siding extension | Wagin |
| | 4.7 | Dumbleyung - rail siding extension | Dumbleyung |
| | 4.8 | Pingaring - rail siding extension | Pingaring |
| | 4.9 | Kukerin - rail siding extension | Kukerin |
| 11 | Roads to Albany Port [targeted road network investment, increased heavy vehicle access] There are several primary roads in the Great Southern that connect grain receival sites with the Mirambeena precinct and Albany Port, including South Coast Highway, Albany Highway and Chester Pass Road. Higher access could be permitted for PBS 42 metre vehicles on specific routes where the infrastructure is capable of supporting longer vehicle combinations safely. | | |
| | 11.1 | Albany Lake Grace Rd | Albany to Pingrup (Chester Pass) |
| | 11.2 | Broomehill-Jerramungup Rd | Gnowangerup to Ongerup |
| | 11.3 | Kojonup-Pingrup Rd | Nyabing to Pingrup |
| | 11.4 | South Coast Hwy | Albany to Jacup |
| | 11.5 | Albany Hwy | Arthur River to Kojonup |
| | 11.6 | Albany Hwy | Kojonup to Albany Port |
| | 11.7 | Northam Cranbrook Rd | Wagin to Cranbrook (to Albany) |
| | 11.8 | Albany Lake Grace Rd | Pingrup to Lake Grace |
| | 11.9 | Broomehill-Gnowangerup Rd | Broomehill to Gnowangerup |
| | 11.10 | Donnybrook Kojonup | Qualeup to Kojonup |
| | 11.11 | Formby South Rd | Gnowangerup to M001 |
| | 11.12 | Gorge Rock - Lake Grace Rd | Kulin to Lake Grace |
| | 11.13 | Kojonup Pingrup Rd | Katanning to Nyabing |
| 11.14 | Collie Lake King Rd | Wagin to Lake King | |
| 17 | Great Southern Local Roads [targeted road network investment] There are many local roads which would benefit from infrastructure upgrades. Upgrades will assist feeder roads to grain receival sites, return carriage of fertiliser, agricultural lime to farm gate, and livestock transport. Some hay could be transported in the northern area. Refer to Appendix 5 and 6 for detailed prioritisation of local roads. | | |

PROJECT PACKAGES - WHEATBELT REGION



To ensure the sustainability of the remaining active rail lines and improve productivity on the Eastern Goldfields Railway, Great Southern Railway and rail line north to Geraldton, five separate rail packages have been identified. Increasing utilisation on rail decreases road tonnages, which reduces road wear, congestion and mitigates some accident risk.

PROJECT PACKAGES - WHEATBELT REGION

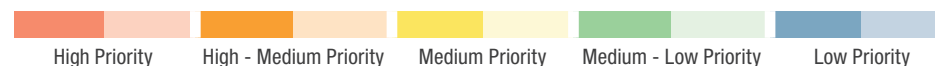
Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location | |
|---------|---|--|-------------------------------------|-------------|
| 1 | Avon (Northam) Rail [rail improvements, establish intermodal terminals] | | | |
| | Avon is a major site for grain receivals, and is served by a high quality dual gauge rail network into Perth. Extensions of the rail sidings will allow more freedom in shunting trains between movements and mitigate the need to wait for the main line to move wagons. | | | |
| | Given its strategic location, Avon is a candidate for an intermodal site in this region, which could both consolidate grain and containerised hay onto the rail network and help promote regional economic growth. | | | |
| | 1.1 | Avon - rail siding extension | Avon | |
| | 1.2 | Avon - new intermodal terminal | Avon | |
| 2.1 | Perth to Geraldton: Millendon Junction to Watheroo [rail improvements, establish intermodal terminal] | | | |
| | Upgrading the rail line from Watheroo to Millendon Junction will incentivise the use of rail due to increased productivity, and connect a prospective intermodal site at Muchea. | | | |
| | The line has a 19 tonne axle load south of Mooliabeenee and 16 tonne axle load north. Improving the line to dual gauge will facilitate both narrow and standard gauge movements, improving network connectivity. Rail siding extensions can be delivered at Muchea, Moora and Watheroo. | | | |
| | Muchea is a strategic site to consolidate freight from the north and north-east areas of the Project Area, and transfer tonnages to rail. This will benefit regional economic growth, improve road safety, increase efficiency, and optimise the use of the existing rail network. | | | |
| | 2.1 | Millendon Junction to Watheroo rail line upgrade | Millendon Junction to Watheroo | |
| | | 2.1.1 | Muchea – rail siding extension | Muchea |
| | | 2.1.2 | Muchea – new intermodal terminal | Muchea |
| | 2.1.3 | Moora – rail siding extension | Moora | |
| | 2.1.4 | Watheroo – rail siding extension | Watheroo | |
| 3 | Rail North-East of Northam [rail improvements] | | | |
| | The lines from Goomalling to McLevie and Burakin to Beacon are currently 16 tonne axle load, with the other rail lines in this group 19 tonne axle load. Wholesale rail upgrades are recommended, to increase maximum payload per train movement. Additional productivity gains can be made by increasing rail siding lengths at Wyalkatchem, Cadoux, Goomalling, Koorda, Bencubbin, Konnongorring and Ballidu. The highest priority of these is Wyalkatchem. Consolidating the Dowerin site into the larger Dowerin 2 site and connecting this site to the rail network via a new siding will facilitate greater volumes of grain to be transported by rail. | | | |
| | 3.1 | Beacon/Kalannie to Avon rail line upgrade | Beacon/Kalannie to Northam | |
| | | 3.1.1 | Dowerin – new rail siding | Dowerin 2 |
| | | 3.1.2 | Cadoux – rail siding extension | Cadoux |
| | | 3.1.3 | Goomalling – rail siding extension | Goomalling |
| | 3.2 | Mukinbudin to Amery rail line upgrade | Mukinbudin to Amery | |
| | | 3.2.1 | Wyalkatchem – rail siding extension | Wyalkatchem |
| | | 3.2.2 | Koorda – rail siding extension | Koorda |
| | | 3.2.3 | Bencubbin – rail siding extension | Bencubbin |
| | 3.3 | McLevie to Goomalling rail line upgrade | McLevie to Goomalling | |
| | | 3.3.1 | Ballidu – rail siding extension | Ballidu |
| | 3.3.2 | Konnongorring – rail siding extension | Konnongorring | |

PROJECT PACKAGES - WHEATBELT REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location |
|---------|--|--|---------------------|
| 5 | Brookton to Northam Rail [rail improvements, establish intermodal terminals] Brookton is a key rail loading site and has rapid rail loading facilities. Upgrading the rail line to dual gauge (from 19 tonne axle load to 24 tonne axle load from Brookton to Perth, whilst still permitting connectivity with the Great Southern Rail Line south of Brookton, which is 19 tonne axle load south of Brookton), and extending the rail sidings at Brookton and York, will facilitate increased payload per train movement to Perth, as well as increased train lengths. This is expected to reduce road freight volumes on Brookton Highway and into the Perth metropolitan area. An intermodal terminal could be established at Brookton or York. An intermodal site in this region will consolidate grain and containerised hay onto the rail network and promote regional economic growth. As yield increases, multiple sites can be developed. | | |
| | 5.1 | Northam to Brookton rail line reconstruction | Northam to Brookton |
| | 5.2 | Brookton - rail siding extension | Brookton |
| | 5.3 | Brookton - new intermodal facility | Brookton |
| | 5.4 | York - rail siding extension | York |
| | 5.5 | York - new intermodal facility | York |
| 6 | Northam to Southern Cross [rail improvements] The Eastern Goldfields Railway is standard gauge 24 tonne axle load and in good condition, as it is utilised for all rail freight to and from the eastern states. However, significant productivity gains could be achieved by increasing rail siding lengths at Bodallin, Merredin, Kellerberrin, Tammin, Cunderdin, Meckering, Doodlakine and Southern Cross. The highest priority of these is Kellerberrin. | | |
| | 6.1 | Kellerberrin – rail siding extension | Kellerberrin |
| | 6.2 | Cunderdin – rail siding extension | Cunderdin |
| | 6.3 | Bodallin – rail siding extension | Bodallin |
| | 6.4 | Merredin – rail siding extension | Merredin |
| | 6.5 | Tammin – rail siding extension | Tammin |
| | 6.6 | Meckering – rail siding extension | Meckering |
| | 6.7 | Doodlakine – rail siding extension | Doodlakine |
| | 6.8 | Southern Cross – rail siding extension | Southern Cross |
| 7 | Miling to Toodyay Rail [rail improvements] Upgrading the rail line between Miling and Toodyay (where it connects to the Eastern Goldfields Railway) to dual gauge (24 tonne axle load), will increase productivity for the entire line, and significantly improve productivity at Calingiri south, where there are increased volumes. Extending the rail sidings at Calingiri and Piawaning, at the same time, would provide additional efficiencies. | | |
| | 7.1 | Miling to Toodyay rail line reconstruction | Miling to Toodyay |
| | 7.2 | Calingiri - rail siding extension | Calingiri |
| | 7.3 | Piawaning - rail siding extension | Piawaning |

PROJECT PACKAGES - WHEATBELT REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location |
|---------|---|--------------------------|---|
| 12 | Roads to Perth [targeted road network investment, increased heavy vehicle access] | | |
| | Improving key roads from major receival sites (Wickepin, Narrakine, Dale) to the metropolitan boundary will facilitate increased access, decreasing the number of heavy vehicle movements on these roads and contributing to improved road safety outcomes. | | |
| | Improving the roads to Lancelin benefits trucks carting lime from Lancelin through Perth to the southern Wheatbelt and Great Southern. | | |
| | RAV access can be reassessed for these major roads to the metropolitan area to reduce the number of heavy vehicle movements on this route and improve transport productivity. This includes assessment of PBS 42 metre vehicles. | | |
| | General route upgrades, including new overtaking opportunities, realignment, widening and bridge strengthening will improve reliability and safety for all road users throughout the Wheatbelt. | | |
| | Rail is not considered competitive in the area between Brookton and Wagin. | | |
| | 12.1 | Indian Ocean Drive | Lancelin Road to K.W. Road |
| | 12.2 | Brand Hwy | Great Northern Hwy to Orange Springs Road |
| | 12.3 | Albany Hwy | Narrakine (Williams) to Perth |
| | 12.4 | Albany Hwy | Narrakine to Arthur River |
| | 12.5 | Brookton Hwy | Brookton to Perth |
| | 12.6 | Brookton Hwy | Brookton to Hyden |
| | 12.7 | Brookton Hwy | Hyden to Lake Varley |
| | 12.8 | Williams Narrogin Hwy | Williams to Narrogin |
| | 12.9 | Narrogin-Kondinin Rd | Narrogin to Wickepin (to Perth) |
| | 12.10 | Northam Cranbrook Rd | Northam to York |
| | 12.11 | Northam Cranbrook Rd | York to Beverley |
| | 12.12 | Northam Cranbrook Rd | Beverley to Brookton |
| | 12.13 | Northam Cranbrook Rd | Brookton to Narrogin |
| | 12.14 | Northam Cranbrook Rd | Narrogin Link Road |
| | 12.15 | Northam Cranbrook Rd | Narrogin to Wagin |
| 12.16 | Gorge Rock - Lake Grace Rd | M052 to Kulin | |
| 12.17 | Chidlow - York Rd | Chidlow to York | |
| 12.18 | York - Merredin Rd | York to Quairading | |
| 12.19 | York - Merredin Rd | Quairading to Bruce Rock | |
| 12.20 | Great Eastern Hwy | The Lakes to Northam | |

PROJECT PACKAGES - WHEATBELT REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location |
|---------|---------|---------------------------|-----------------------------------|
| 12 | 12.21 | Great Eastern Hwy | Northam to Merredin |
| | 12.22 | Great Eastern Hwy | Merredin to Bodallin |
| | 12.23 | Great Eastern Hwy | Bodallin to Southern Cross |
| | 12.24 | Marvel Loch | Southern Cross to Marvel Loch |
| | 12.25 | York - Merredin Rd | Bruce Rock to Merredin |
| | 12.26 | Northam Pithara Rd | Northam to Goomalling |
| | 12.27 | Northam Pithara Rd | Goomalling to Ballidu |
| | 12.28 | Northam Pithara Rd | Ballidu to GNH |
| | 12.29 | Goomalling - Merredin Rd | Goomalling to Merredin |
| | 12.30 | Toodyay Rd (H033) | Roe Hwy to Gidgegannup |
| | 12.31 | Toodyay Rd (M026) | Gidgegannup to Toodyay |
| | 12.32 | Goomalling - Toodyay Rd | Toodyay to Goomalling |
| | 12.33 | Great Northern Hwy | Muchea to Chittering |
| | 12.34 | Great Northern Hwy | Chittering to New Norcia |
| | 12.35 | Great Northern Hwy | New Norcia to Wubin |
| | 12.36 | Midlands Rd | Great Northern Hwy (GNH) to Moora |
| | 12.37 | Midlands Rd | Moora to Marchagee |
| | 12.38 | Wongan Hills Calingiri Rd | Wongan Hills to Calingiri |
| | 12.39 | Wongan Hills Calingiri Rd | Calingiri to GNH (New Norcia) |
| | 12.40 | York - Merredin Rd | GNH to Moora |

PROJECT PACKAGES - WHEATBELT REGION

Package numbering in the tables and maps relates to the numbering in the full project list in Appendix 2.



| Package | Project | Project Name | Location |
|---------|---|---|----------|
| 14 | Wheatbelt (North West) Local Roads | These road upgrades will facilitate the safe movement of agricultural lime and fertiliser by road, as well as provide benefits for road connectivity to road and rail receival sites for grain transport. Significant benefits are expected for general traffic with respect to road safety. RAV access can be reassessed for routes through the Project Area once infrastructure improvements have been made, particularly for major lime routes and connectivity from road-only receival sites to road-rail receival sites. | |
| 16 | Wheatbelt (South West) Local Roads | These road upgrades provide key connections between major routes and to farm gates, staging facilities or receival sites. Many of these roads require upgrades for road safety reasons which will benefit all transport users. | |
| 18 | Wheatbelt (South East) Local Roads | These road upgrades will provide connectivity to the Eastern-Goldfields Rail Line and the Hyden rail spur. The roads in the north-western corner are the highest priority. | |
| 20 | Wheatbelt (North East) Local Roads | These road upgrades provide a continuation and connectivity for inland sites to the coast, for movement of all agricultural produce. They also provide connectivity from farm gates to receival sites, depots or staging facilities. Many roads are for connection to Tier 1 or Tier 2 rail lines. | |

Refer to Appendix 5 and 6 for detailed prioritisation of local roads.


APPENDIX 8 - GLOSSARY OF TERMS

| | |
|---------------------|--|
| AMMS | Accredited Mass Management Scheme (by permit, operators can travel with loads over the nominated mass limit for a given Restricted Access Vehicle class; requires operators to complete an additional accreditation module for mass under the WA Heavy Vehicle Accreditation scheme). |
| Arc | Arc Infrastructure is the lessee of the rail freight network from the State Government until 2049. |
| CBH | Cooperative Bulk Handling (coordinates the storage and rail/road movement of about 90 per cent of the grain harvest in WA; has almost 200 grain receival sites – though reducing to 100 active sites over coming years). |
| GCM | Gross Combination Mass (vehicle + load). |
| HMMS | Harvest Mass Management Scheme (by permit for four months of the year only – i.e. harvest – allows a 10 per cent tolerance on mass for growers transporting grain from farm gate to receival point; need to be registered with receiver; currently also allows ‘last-mile’ access for Restricted Access Vehicles on unassessed local roads). |
| HVRR | Heavy Vehicle Road Reform (national reform aimed at changing the road charging and investment system for heavy vehicle use). |
| PBS | Performance Based Standards (the system in which a heavy vehicle is assessed and given permitted access based on the actual performance of the vehicle rather than its length/mass alone). |
| Pilot | A licensed operator of a vehicle which travels with a non-standard heavy vehicle movement to provide additional sight and signify a heavy load ahead/behind, but is not authorised to direct traffic |
| Project Area | The Mid West, Wheatbelt, Great Southern and Goldfields-Esperance regions as shown in Figure 1. |

| | |
|---------------------|---|
| RAV | Restricted Access Vehicle (anything over 42.5t gross vehicle mass, is wider than 2.5m, taller than 4.3m, longer than 12.5m rigid or 19m combination. There are different RAV classifications depending on the dimensions and mass of the vehicle, i.e. a RAV 1 is a smaller heavy vehicle, and a RAV 10 can be 53.5m long). |
| RAV Network | A network of roads permitted for use by Restricted Access Vehicles based on the dimension and mass limits of the vehicle (https://mrwebapps.mainroads.wa.gov.au/hvsnetworkmap). |
| Shunting | Moving a part or entire train combination from a main rail line to a rail siding, or between rail sidings. |
| SRFN | Secondary Road Freight Network (the collection of local roads which are used by heavy vehicles across the project area, as assessed by Main Roads). |
| Tier 1 | Core regional rail freight network, carries high volumes of varied types of freight, considered economically viable. |
| Tier 2 | Key branch lines of regional rail freight network, carries moderate volumes of mostly homogenous freight (grain), considered economically viable. |
| Tier 3 | Minor branch lines of regional rail freight network, carried low volumes of homogenous freight (grain). Operations ceased by June 2014; currently in ‘care and maintenance’. |
| WARAR | WA Rail Access Regime the Railways (access) Act 1988 (WA) and Railways (Access) Code which govern the access arrangements for the freight rail in WA; currently under review by Treasury). |
| WSFR Network | Wheatbelt Secondary Freight Route network (the collaborative identification of local roads which are used by heavy vehicles throughout the Wheatbelt). |

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