REROC

RIVERINA EASTERN REGIONAL ORGANISATION OF COUNCILS




Regional Freight **Transport Plan**

October 2016

REROC Infrastructure Planning Sub-Committee

Regional Freight Transport Plan

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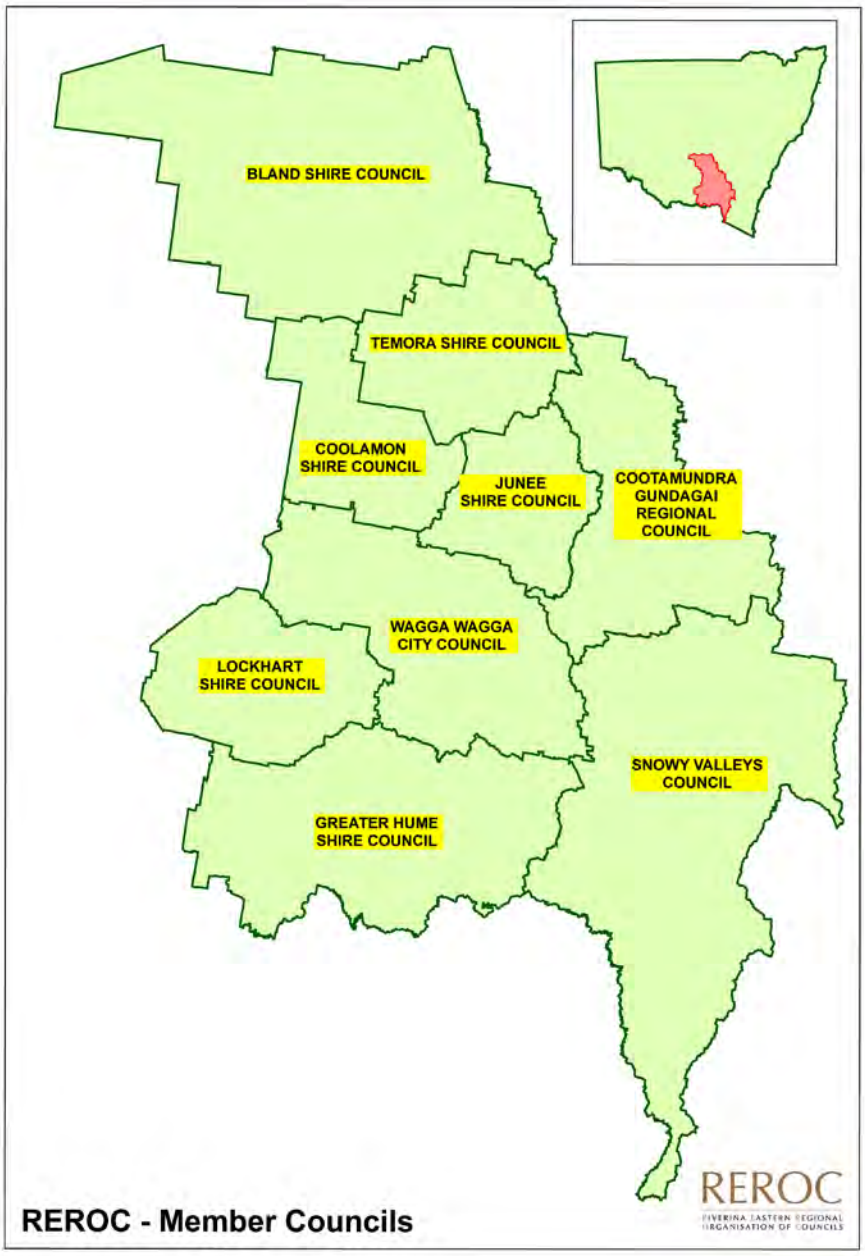
EXECUTIVE SUMMARY

The Riverina Eastern Regional Organisation of Councils (REROC) is a voluntary association of 14 local government bodies, located in the eastern Riverina region of NSW. The members of REROC are the councils of Bland, Coolamon, Cootamundra-Gundagai, Greater Hume, Junee, Lockhart, Snowy Valleys, Temora, Wagga Wagga and Goldenfields Water and Riverina Water County Councils.

The REROC region, which is four times larger than Sydney, covers an area of some 40,000 sq kms and contains some of NSW's most heavily utilised road and rail transport corridors, including the Hume Highway, the Newell Highway, the Olympic Highway, the Burley Griffin Way and the Main Southern Rail Line.



This project was initiated by REROC to investigate the freight infrastructure network from a regional perspective. The implementation of integrated transport solutions for the region is an overriding goal of the project and to that end REROC has reviewed both the rail and road transport networks that service the eastern Riverina region.

Most of the 41 million tonnes of freight that is transported between NSW and Victoria each year[1] passes through the REROC region, primarily by road but also by rail. The NSW Freight and Ports Strategy has estimated that by 2031 the freight task in NSW will almost double to 794 million tonnes.[2]

The forecasted growth will add significant pressure to road and rail networks in the REROC region. It will also bring opportunities for the growth of logistics' based enterprises such as Qube Logistics at Harefield in Junee, the proposed Riverina Intermodal Freight and Logistics Hub (RiFL) at Bomen in Wagga Wagga, and the proposed Logistics Hub at Cootamundra. Constraints on freight corridors hinder growth and inhibit economic activity, costing industry time and money and in some instances acting as a barrier to the establishment of new or the expansion of existing industries.

REROC's overall aim was to develop a regional approach to transport planning whereby significant road and rail freight corridors were mapped and constraints on those corridors were identified. In order to achieve a common approach to the determination of the region's priority issues all the road routes in the region were assessed utilising a weighted matrix developed by REROC's Infrastructure and Transport Planning Sub-committee. A set of goals and strategies have also been identified that will assist the region realise its full potential in relation to the provision of freight transport solutions.

The project is underpinned by comprehensive on-line mapping of the eastern Riverina's freight routes, its modal points, constraints and pinch points. Users can view and manipulate the mapping layers to discover information about freight transport in the region by accessing the free facility at www.reroc.giscloud.com

OUR GOALS AND STRATEGIES

REROC considered the future directions and the goals that the membership wanted to achieve for freight transport in the eastern Riverina region. It was agreed that the following goals and strategies should be adopted to progress the Region's needs:

Goal One: *Remove identified road constraints within the region by 2021.*

Strategies

1. Utilise the priority assessment of roads to undertake preliminary costings and seek funding to address identified constraints.

[1] Transport for NSW, *NSW Freight and Ports Strategy,* 2013 Pg 21.
[2] Ibid., pg 19

2. Identify and implement initiatives that facilitate councils working collaboratively to address identified constraints.
3. Identify opportunities for councils to work in collaboration with State and Federal governments and agencies to address identified constraints, including opportunities for joint funding.

Goal Two: *Develop a network of identified freight corridors that facilitate the efficient and effective movement of freight within and through the region.*

Strategies:

1. Work with industry and the State Government to identify existing corridors and their constraints.
2. Promote the use of designated regional freight corridors to users and potential users.
3. Develop long term plans to fund improvements for roads that form part of an identified freight corridor.
4. Encourage transport and logistics development on identified corridors through planning and economic development initiatives.

Goal Three: *Support the development and implementation of integrated freight transport solutions.*

Strategies

1. Promote the use of multiple transport modes for freight movements.
2. Support the use of branch lines for freight movement.
3. Work with industry, State and Federal agencies to develop and implement integrated transport solutions.

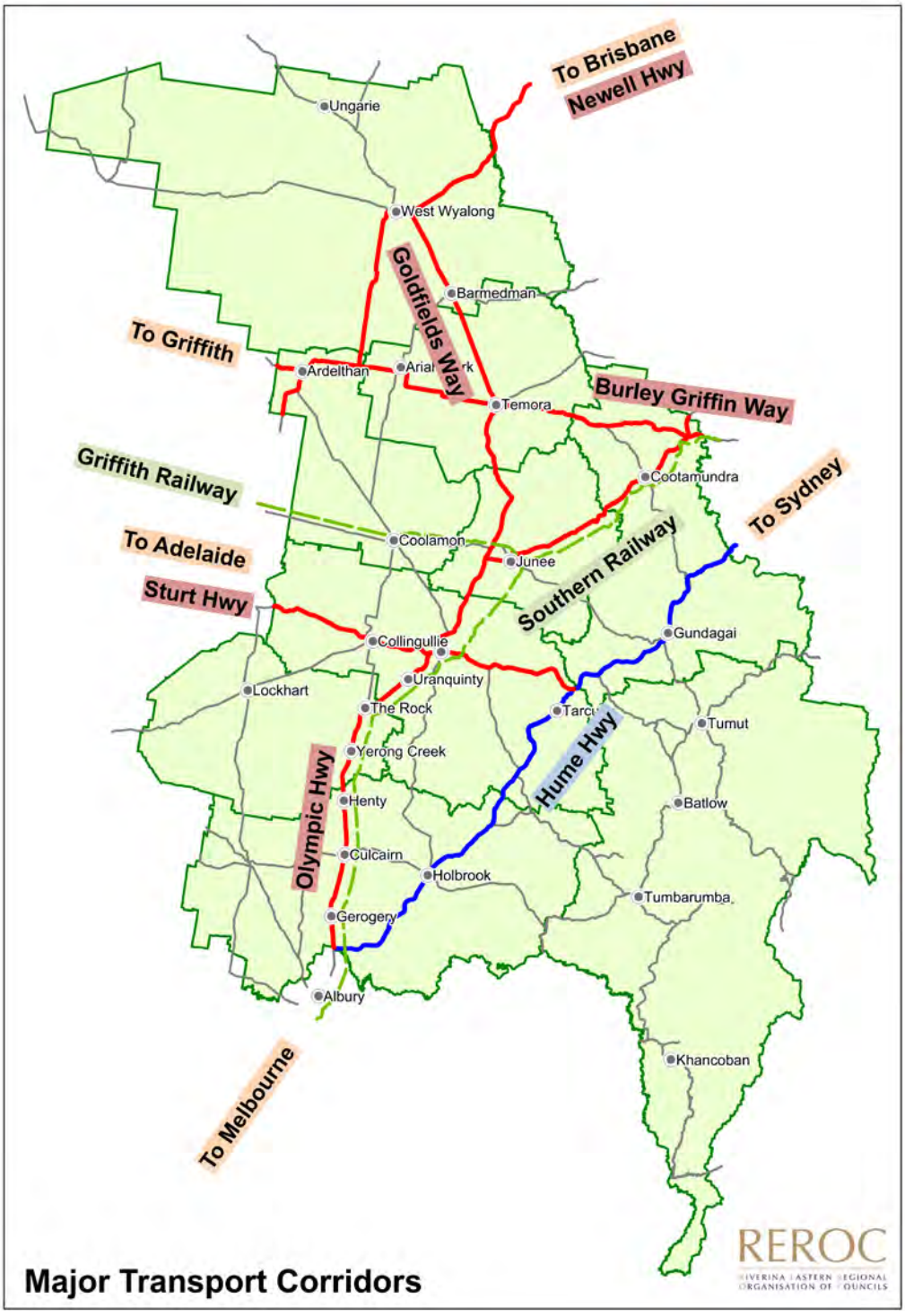
Goal Four: *Support the growth and development of logistics solutions that improve freight movement.*

Strategies

1. Work collaboratively with industry to identify logistics' solutions for the region that improve freight movement.
2. Source funding that supports the growth and development of logistics' solutions.

PART ONE: INTRODUCTION

Freight and logistics are an integral part of the economic well-being of the eastern Riverina. The region contains the main Sydney-Melbourne road corridor, the Hume Highway, the Main Southern Rail Line, as well as the main Melbourne-Brisbane road corridors; the Newell Highway and the Olympic Highway. The region also contains the Sturt Highway which is part of the main Sydney-Adelaide transport corridor.



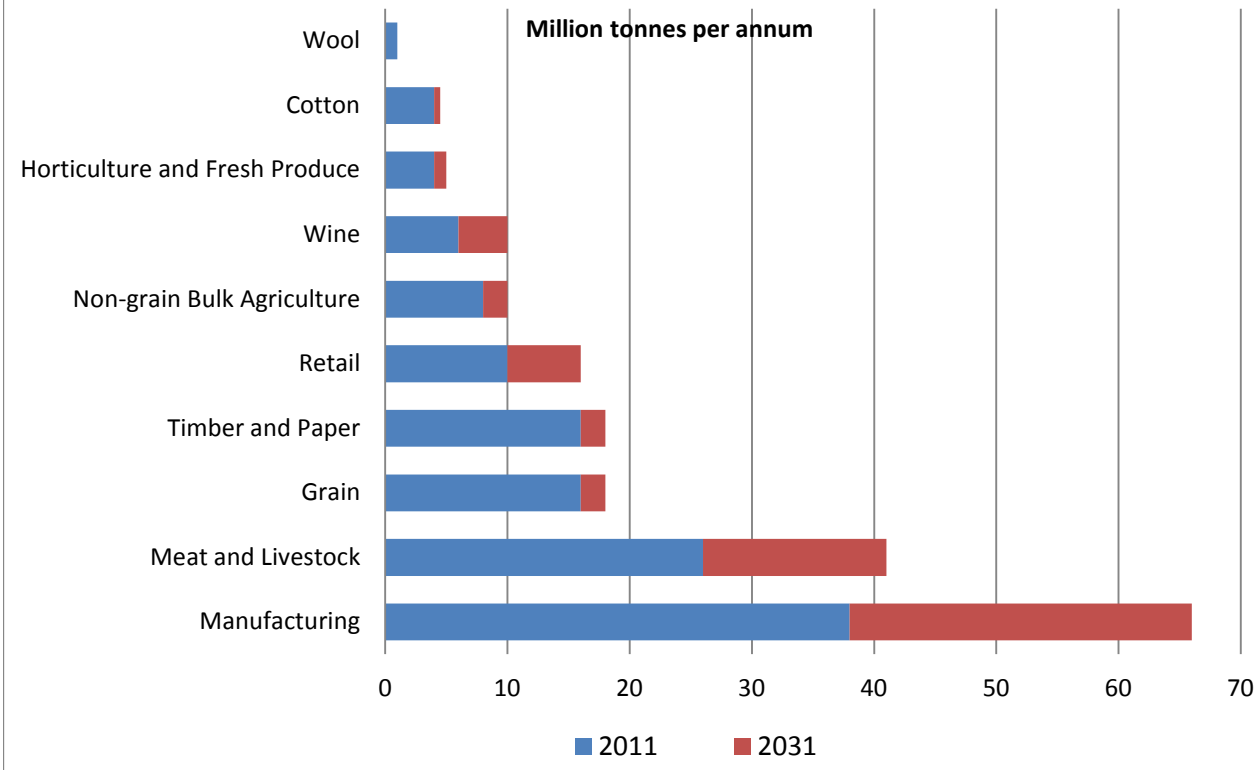
The NSW Freight and Ports' Strategy has estimated that by 2031 the freight task in NSW will almost double to 794 million tonnes.[3] While coal is expected to continue to comprise the largest component of the freight task, all other commodities are forecast to grow by between 2 and 3 percent.[4] This growth will impact on transport corridors throughout the eastern Riverina.

Transport for NSW has forecast growth in 17 supply chains, 10 of which are commodities that are generated within the Riverina region or have a destination within the Region:

1. Manufacturing
2. Meat and Livestock
3. Grain
4. Timber and Paper
5. Retail
6. Non-grain Bulk Agriculture
7. Wine
8. Horticulture and Fresh Produce
9. Cotton
10. Wool

Table One below, shows the estimated growth in commodity movements for the selected streams.

Table One: Commodity Movement Volume Growth 2011 - 2031



Source: Transport for NSW, *NSW Freight and Ports Strategy,* 2013, pg 19

[3] Transport for NSW, *NSW Freight and Ports Strategy,* 2013, pg 19
[4] Ibid.

The forecasted growth will add significant pressure to road and rail networks in the REROC region. Rural and regional roads are already groaning under the weight of an increasing freight task. The closure of branch rail lines has forced more grain onto roads and this together with the consolidation of grain receival terminals and the creation mega-storage facilities means that grain movements by road are likely to increase in the future.

The Qube freight hub on the Main Southern Rail line at Harefield in Junee Shire

However the growth will also bring opportunities for the expansion of logistics' based enterprises such as Qube Logistics at Harefield in Junee, the proposed Riverina Intermodal Freight and Logistics Hub (RiFL) at Bomen in Wagga Wagga, and the proposed Logistics Hub at Cootamundra.

Producers in the region are able to choose between transporting products south to the Port of Melbourne or north to Port Botany. This places the region in a unique position, and enhances its prospects for growth in the transport and logistics field. Further opportunities may arise if more freight is shifted to rail as a result of the increase in container capacity to and from Port Botany.

Most of the 41 million tonnes of freight that is transported between NSW and Victoria each year[5] passes through the REROC region, primarily by road but also by rail.

Our members agree with Transport for NSW's proposition that essential to the delivery of good freight outcomes is corridor planning. In addition, the REROC members are committed to the promotion of integrated freight transport solutions; road corridors connecting with rail corridors that connect with air and sea services. Integration offers the region and the State the opportunity to deliver the most effective freight solutions in terms of efficiency and effectiveness.

Freight train waits at Bomen Industrial Estate at Wagga
Wagga

Our members are concerned that much of the freight planning in the State has focused on Sydney's needs and the needs of the mining sector. However the REROC region is part of Riverina, one of the

[5] Ibid. Pg 21.

most significant food bowls and agricultural production areas in Australia, producing over $1 billion of agriculture and horticultural product each year. The region is Australia's largest producer of wine, about 50% of production is exported. [6]

Canola in bloom in the eastern Riverina

The Riverina region also produces:

- over 25% of NSW fruit and vegetables;
- 90% of NSW citrus products;
- 80% of NSW wine/grapes;
- almost 20% of NSW crop production representing two-thirds of the State's crop value;[7]
- $574 million in plantation softwoods.[8]

All this produce either leaves the region as fresh food or beverages or is transported elsewhere often within the region for processing then transported out. Consequently the freight task in the region is significant and for this reason the REROC member councils have committed to the development and implementation of a Regional Freight Transport Plan.

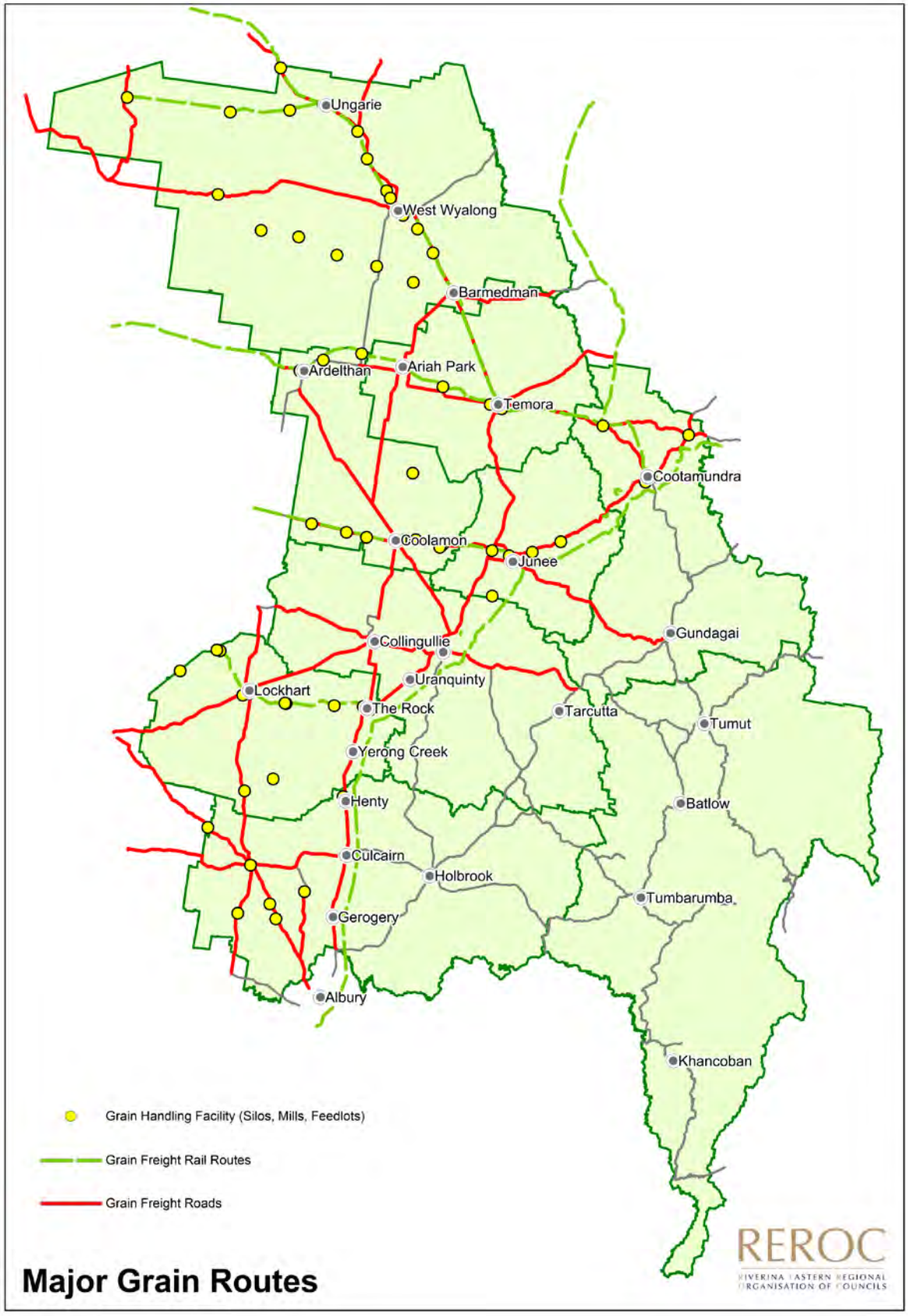
Major grain receival facility located on the Main Southern Rail Line at Illabo in Junee Shire

Our members agree with Transport for NSW's assessment that there has been an under investment in rail.[9] In the REROC region this under investment, including the closure of branch lines, has resulted in more of the grain freight task being pushed onto roads including local roads. The most recent on the NSW Grain Harvest Management Scheme showed that 67% (over 3,622,787 tonnes) of grain deliveries reported to the RMS were delivered using GHMS of which approx. 33% travelled on roads in the REROC region. Our members therefore see as vital the development of a regional freight strategy that addresses the challenges of providing freight solutions that will promote the economic well-being of the entire region.

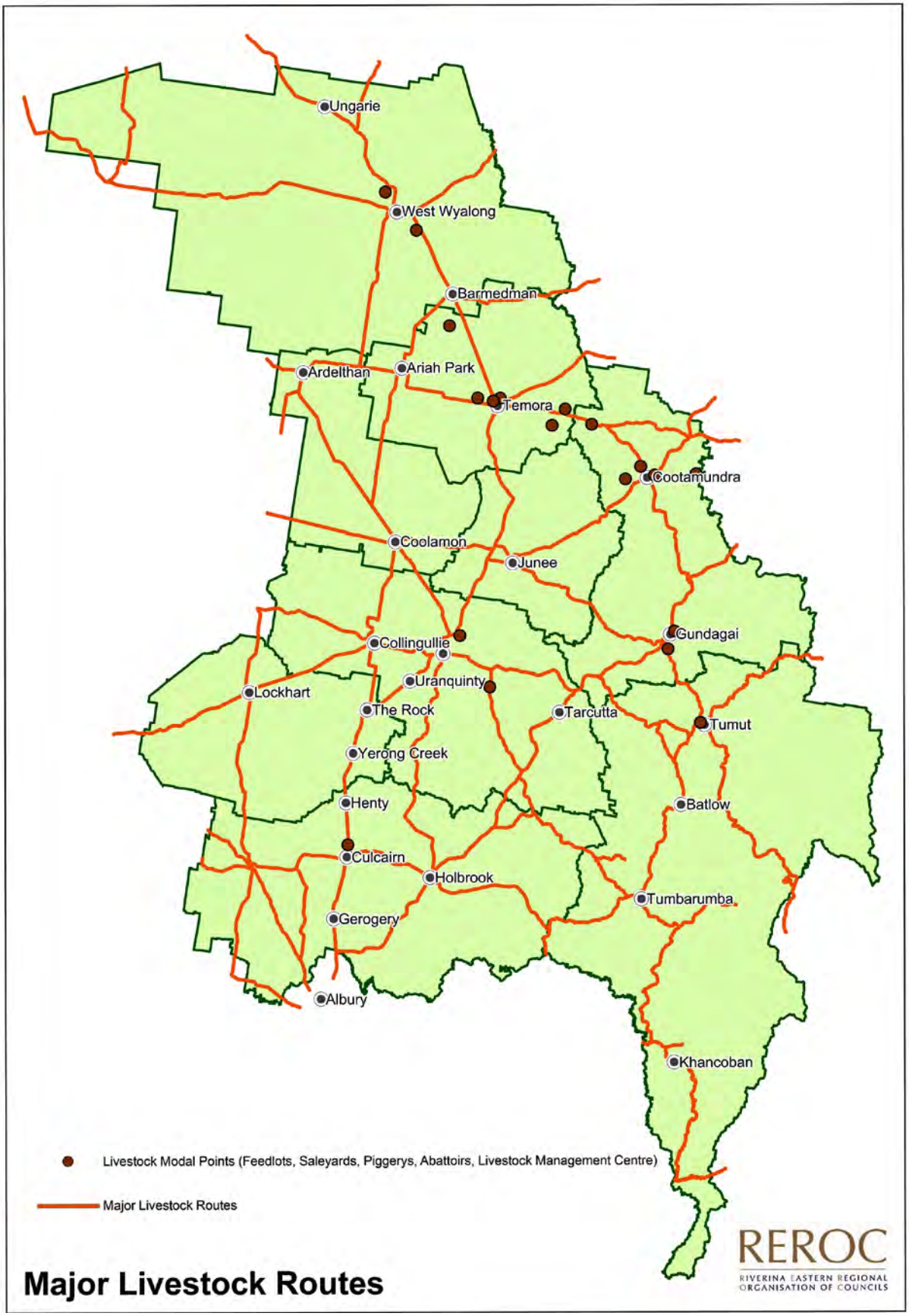
The following maps show the major freight transport routes for commodities and their modal points and the HML routes within the eastern Riverina.

[6] NSW Trade and Investment, *Riverina Profile*, https://www.business.nsw.gov.au/invest-in-nsw/regional-nsw/nsw-regions/riverina
[7] Ibid.
[8] NSW State and Regional Development, *Profile of the Timber Industry in the South West Slopes Region of NSW*, http://forestindustrycouncil.com.au/factsheets/SWS_final_summary.pdf
[9] Transport for NSW, Op. Cit., pg 27.

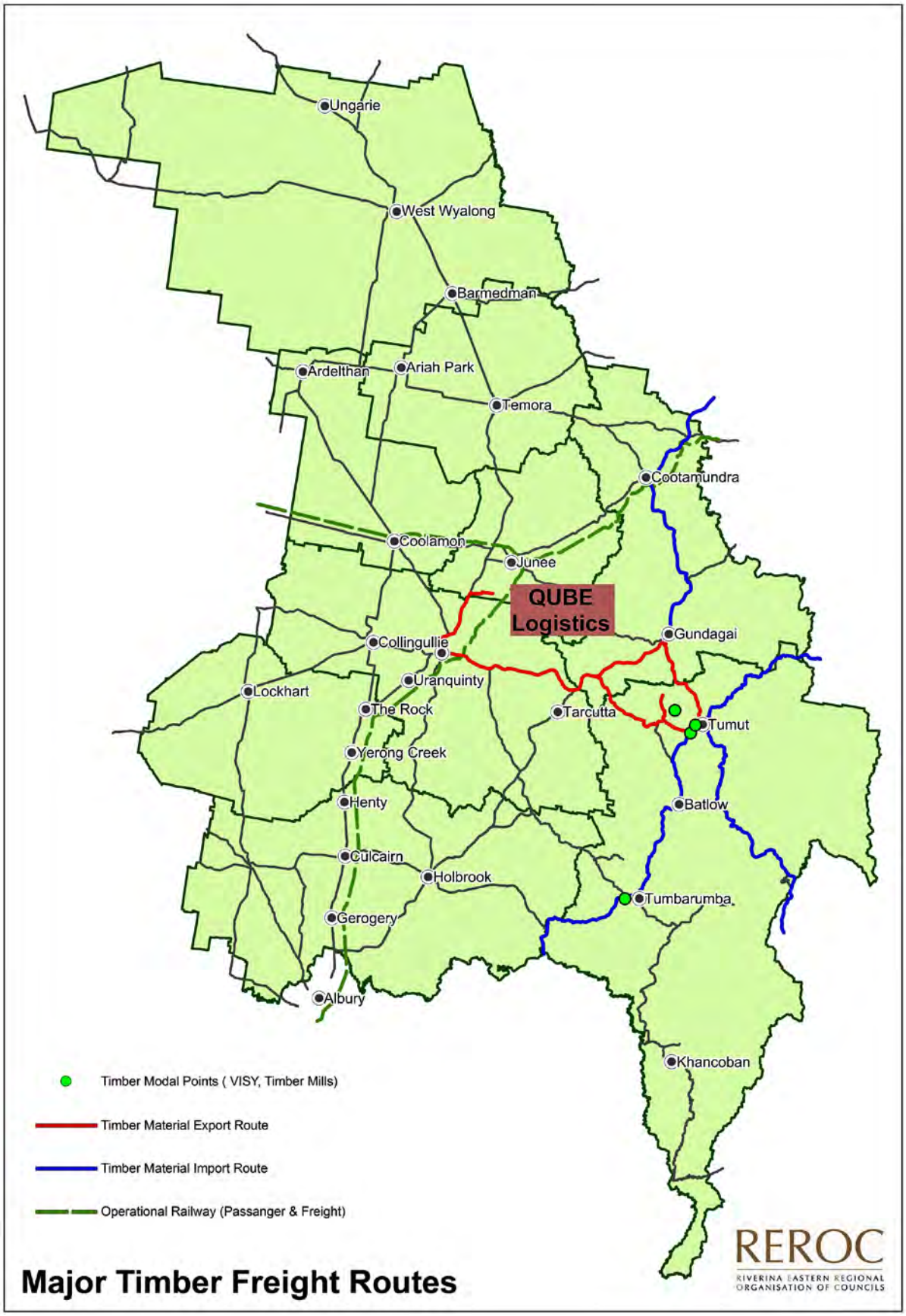
MAJOR GRAIN FREIGHT ROUTES AND MODALS



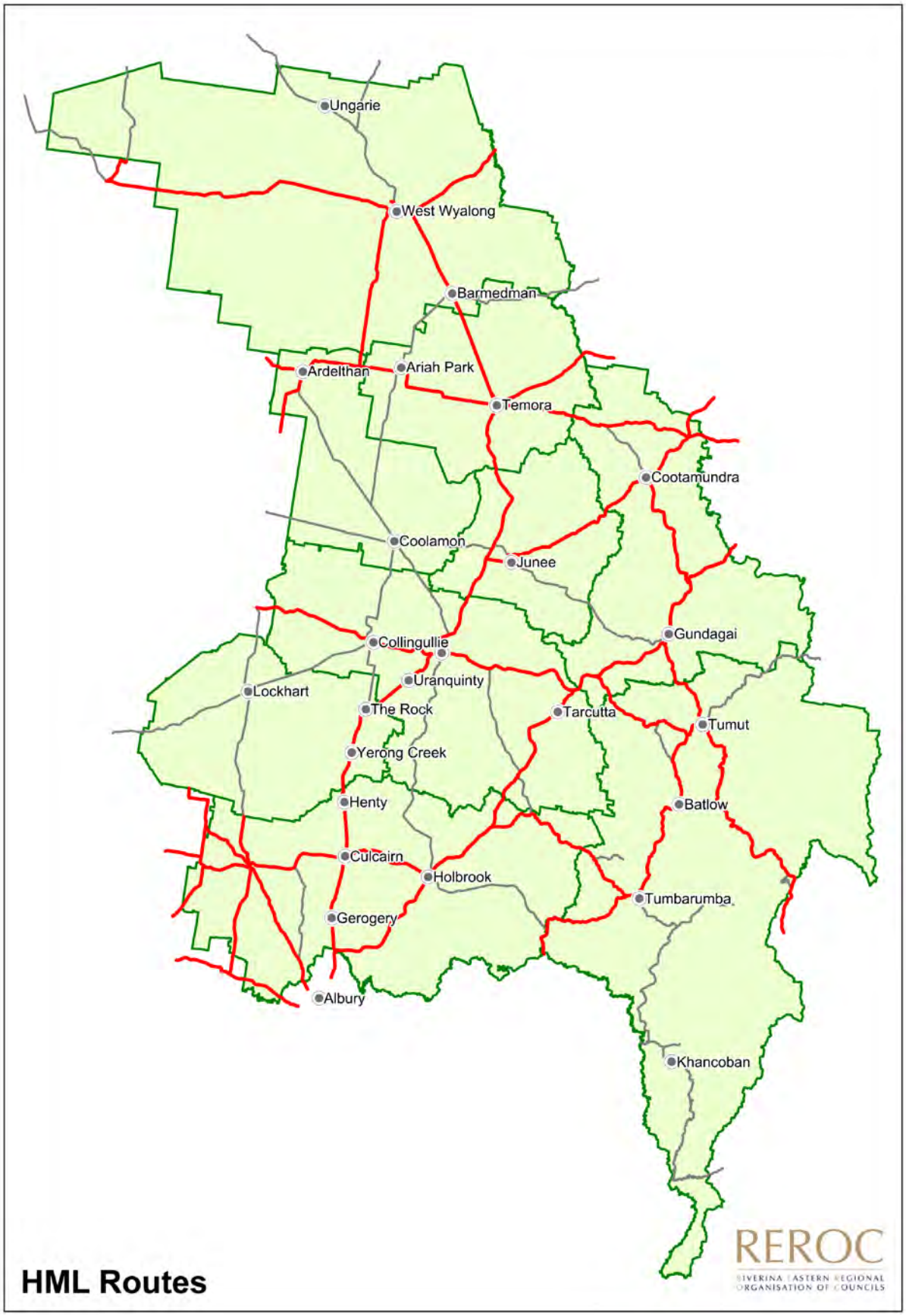
MAJOR LIVESTOCK FREIGHT ROUTES AND MODALS



MAJOR TIMBER/PULP AND PAPER FREIGHT ROUTES AND MODALS



HML ROUTES


Ungarie
West Wyalong
Barmedman
Ardelthan
Ariah Park
Temora
Cootamundra
Coolamon
Junee
Gundagai
Collingullie
Uranquinty
Lockhart
The Rock
Tarcutta
Tumut
Yerong Creek
Henty
Batlow
Culcairn
Holbrook
Tumbarumba
Gerogery
Albury
Khancoban
HML Routes
REROC
RIVERINA EASTERN REGIONAL ORGANISATION OF COUNCILS

PART TWO: ABOUT THIS PLAN

This project was initiated by REROC to investigate the freight infrastructure network from a regional perspective. The implementation of integrated transport solutions for the Region is an overriding goal of the project and to that end REROC has reviewed both the rail and road transport networks that service the eastern Riverina region.

In the past councils have been concerned with road and rail movements within their own local government boundaries, this project considers the bigger picture, identifying regional issues that impact on efficient and effective freight movements from within and through the eastern Riverina region. To that end a study of the movement of vehicles and infrastructure needs from a regional basis has been undertaken. In undertaking this task REROC has identified the Freight Routes of Regional Significance; these routes have been identified in the following categories:

1. National and State Roads
2. Regional Roads
3. Local Roads

In preparing this Plan, REROC has consulted extensively with its member councils and has also consulted with industry representatives, Transport for NSW and the NSW RMS.

The first stage of the Plan required detailed mapping that linked industry sources to destinations. These infrastructure links were examined to determine blockages or hindrances to the efficient movement of freight, which allowed REROC to identify the Region's corridor constraints.

At the outset REROC committed to the utilisation of spatial data technologies to map the outcomes of the project, consequently the final outcomes are available in report form and on-line as interactive maps which can be accessed at www.reroc.com.au/projects/regional-freight-transport-plan

The Plan is intended to identify the significant constraints impacting on the delivery of freight solutions in the region and to that end a Multi-criteria Weighted Assessment Matrix (the Matrix) was developed to assist in assessing the overall impact of each corridor constraint. (Further information on the the Matrix is included at Appendix One). Members utilised the Matrix to assess and score each constraint, the score determined the level of priority given by the Plan to the constraint. Routes were also assessed against the NSW RSM's Benefit Cost Ratio (BCR) to provide a robust assessment of theimpacts of the route constraints.

ASSESSMENT OF ROUTE CONSTRAINTS

REROC members developed and agreed to to use Multi-criteria Weighted Assessment Matrix (the Matrix) to assess each of the 41 freight routes identified in the Plan. The intention was to use the Matrix categorise the routes according to the impact the route's constraint or constraints had on the efficient movement of transport. Where a route traversed more than one LGA the council in each LGA assessed the section of the route as it pertained to their LGA. In order to ensure uniformity in

the assessment process, each criteria and score was given a descriptor to guide the scoring process. The assessment matrix is reproduced in Appendix One.

The goal of the assessment is to inform investment decisions in relation roads in the region. All the listed roads are integral to the freight task in the REROC region and where an opportunity presents for investment in any one of the routes, which will address some or all of its constraints, then REROC will pursue that opportunity. A summary of the 41 routes and their constraints is listed below.

Constraint Number	Constraint	Description of Constraint
1. Hume Highway M31		
1.1	Changing Traffic Patterns *Greater Hume, Cootamundra-Gundagai LGAs*	The completion of the dual carriageway may alter traditional traffic patterns diverting traffic to roads that link with the major highways e.g. Burley Griffin Way which links the Hume Highway with the Newell Highway.
1.2	Sheahan Bridge at Gundagai *Cootamundra-Gundagai LGA*	The Bridge is not approved for A-Double vehicles
2. Olympic Highway, MR78, Route Number A41		
2.1	The Gap Bridge Underpass at Cootamundra *Cootamundra-Gundagai LGA*	Bridge height limits High Vehicle access. Alternate route adds 8 kms to the journey. The Main Southern Rail Line is vulnerable at this point from accidents that occur when heavy vehicle drivers misjudge the underpass' clearance
2.2	Roundabout at Culcairn CBD *Greater Hume LGA*	Roundabout is an impediment to oversize vehicles.
2.3	Railway Crossing at Illabo *Junee LGA*	A right angled crossing in a 100 km zone requires realignment.
2.4	Roundabout at Wallendbeen *Cootamundra-Gundagai LGA*	Roundabout is an impediment to oversize vehicles.
2.5	Overpass at Wallendbeen *Cootamundra-Gundagai LGA*	The restricted road width is an impediment to oversize vehicles.

2.6	Insufficient Stacking Distance *Greater Hume, Junee, Cootamundra-Gundagai LGAs*	The Highway's proximity to the Main Southern Rail Line has resulted in several locations where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line.
2.7	Railway Crossing North-east of Bethungra *Junee LGA*	A right angled crossing in a 100 km zone requires realignment.
3. Newell, State Hwy 17		
3.1	West Wyalong Bypass Realignment *Bland LGA*	Bypass requires realignment at the south-western intersection and in relation to the railway crossing to reduce angles.
3.2	Coupling and De-coupling at West Wyalong *Bland LGA*	A designated location for coupling and uncoupling needs to be established at West Wyalong.
3.3	Changing Traffic Usage *Temora, Bland LGAs*	Heavy vehicles are choosing the Hume Highway-Olympic Way-Goldfields Way route or the Hume Highway-Burley Griffin Way to link to the Newell significantly changing traffic patterns for those routes.
4. Mid Western Highway, National Route 24, Route Numbers A41 and B64		
4.1	Inadequate Shoulder Width *Bland LGA*	The Highway includes long lengths of road without much shoulder width making it difficult for vehicles to share the road.
5. Burley Griffin Way Route Number MR 84,B94		
5.1	Heavy Vehicle Alternate Route *TemoraLGA*	The alternate route is required to address the problem with the roundabout at Hoskins Street and to remove heavy vehicle movements from the CBD area.
5.2	"S Bend" near Springdale *TemoraLGA*	The road requires re-alignment to remove this impediment
5.3	Causeway between Temora and Wallendbeen *Cootamundra-Gundagai, TemoraLGAs*	Culvert sizes are too small to cope with large rain events, resulting in flooding and road closures.
5.4	Roundabout at Wallendbeen *Cootamundra-Gundagai LGA*	The roundabout is an impediment to oversize vehicles.

5.5	Overpass at Wallendbeen *Cootamundra-Gundagai LGA*	The restricted road width is an impediment to oversize vehicles.
6. Goldfields Way, MR57, Route Number B85		
6.1	No Heavy Vehicle Bypass at Temora *TemoraLGA*	All heavy vehicles using the Highway must travel through the Temora CBD, creating significant inefficiencies for transport operators.
6.2	Road between Barmedman and West Wyalong is subject to flooding *Bland LGA*	The road is the same level as the area around it and as a result is subject to flooding. The Road needs to be raised and the pavement strengthened.
6.3	Road pavement between Barmedman and West Wyalong is inadequate *Bland LGA*	The Road pavement needs strengthening.
6.4	"S Bend" at the railway crossing at Barmedman *BlandLGA*	Road requires realignment
7. Sturt Highway, Highway 20, Route Number A20		
7.1	No Bypass at Wagga Wagga *Wagga Waga City LGA*	Heavy vehicles must travel through part of the Wagga Wagga CBD, interacting with local traffic, pedestrians and a school zone.
7.2	Truck/trailer Interchanges at Wagga Wagga *Wagga Waga City LGA*	Increasing practice of decoupling trailers on side roads to wait for an interchange is causing problems in the City. There are no specialist parking bays currently available
7.3	Height of the Rail over Road Bridge *Wagga Waga City LGA*	The permissible height stops oversized loads from passing under the bridge
8. Snowy Mountains Highway, Highway 18, Route Number B72		
8.1	Curfew at Adelong *Snowy Valleys LGA*	This creates inefficiencies for heavy vehicle transport but only affects the heavy vehicles servicing the Visy Mill. It also increases traffic on the Gocup Road.
8.2	Highway travels through Adelong town centre *Snowy Valleys LGA*	The route increases inefficiencies because it increases the interface between the heavy vehicles, pedestrians and residential traffic.

8.3	Poor Vertical and Horizontal Alignment *Snowy Valleys LGA*	Poor alignment makes it difficult for heavy vehicles to use the route.
8.4	No Passing Lanes *Snowy Valleys LGA*	There are no passing lanes between Adelong and the Hume Highway
8.5	Narrow Bend on Adelong's West Exist *Snowy Valleys LGA*	The bend is narrow and almost 90 degrees, heavy vehicles that meet there must stop to allow each other to pass
9. Gocup Road, Main Road 279		
9	No constraints *Snowy Valleys LGA*	No Constraints
10. Wagga to Tumbarumba Road, MR284, State Road/MR384, Regional Road		
10.1	Different Road classifications *Wagga Wagga City, Greater Hume, Snowy Valleys LGAs*	The Road carries a number of different classifications which restricts access for heavy vehicles. It is a Regional Road in Wagga Wagga and a State Road in Greater Hume and Snowy Valleys.
10.2	Bridges not Assessed *Wagga Wagga City, Greater Hume, Snowy Valleys LGAs*	A number of bridges along the route have not been assessed and therefore are not approved for HML usage.
11. Alpine Way, MR677, Route Number B400		
11.1	Restricted access for Long Vehicles *Snowy Valleys LGA*	Access for these vehicles is restricted from Khancoban to Tom Groggin.
11.2	Detours and Bypasses created by RMS *Snowy Valleys LGA*	When the road is closed the RMS determines alternative routes, this requires collaboration with councils to determine the most appropriate routes and identify the problems and restrictions on the agreed routes.
12. Tumut-Tumbarumba (Batlow Rd) and Tumbarumba-Jingellic Roads (Jingellic Road), Batlow Rd MR85 North, Jingellic Rd MR85 South		
12.1	Realignment of Jackson's Bridge *Snowy Valleys LGA*	Access to the Bridge is restricted until realignment works are undertaken.
12.2	Deficient Road Width *Snowy Valleys LGA*	The route is too narrow for HML vehicles.

12.3	Pavement Strength *Snowy Valleys LGA*	Pavement strength is deficient to meet the demands of HML vehicles.
12.4	Intersection Geometry in Tumbarumba Township *Snowy Valleys LGA*	The current geometry does not accommodate road trains and HML vehicles.
13. Riverina Highway, B58		
13.	No constraints identified *Federation LGA*	
14. Canola Way, MR243		
14.1	Restricted B Double Access *Cootamundra-Gundagai LGA*	The road connects with the Newell Highway, however B-Doubles cannot reach the Hume Highway because there is no access between Nangus and Gundagai
14.2	Tight Movement in Junee Township *Junee LGA*	Tight turning movements in town streets, including a four 90 degree turns and one roundabout make travel through Junee township by heavy vehicles difficult.
14.3	Jubilee Bridge not Assessed *Junee LGA*	The Bridge is not assessed for HML use.
15. Wagga to Coolamon Rd (Coolamon Rd) and Coolamon to Ardlethan (Ardlethan Rd), Coolamon Rd AADT1730, Ardlethan Rd MR240 and AADT480		
15	No constraints identified *Coolamon, Temora Wagga Wagga LGAs*	
16. Mary Gilmore Way, MR398, Route Number AADT300		
16	No constraints identified *Coolamon LGA*	
17. Boomerang Way, MR59		
17.1	Deficient Road Width *Lockhart LGA*	The route is too narrow for HML/large vehicles.

17.2	Pavement Strength is Deficient *Lockhart LGA*	Pavement strength does not meet the needs of CML/large vehicles.
18. Milvale Road, MR241		
18	No constraints identified *TemoraLGA*	
19. Cootamundra to Stockinbingal Road, MR235		
19.1	Bridge not Assessed *Cootamundra-Gundagai LGA*	Bridge at Nioka not assessed for HML
20. Holbook to Wagga Wagga Road, MR211		
20.1	Vertical and Horizontal Alignment *Greater Hume, Wagga Wagga City LGAs*	There is poor alignment in a number of locations.
20.2	Sealed Width *Greater Hume, Wagga Wagga City LGAs*	Some parts of the road have inadequate width for large vehicles. The seal width in Wagga Wagga LGA is 6.9 to 7.2 metres with unsealed shoulders of .5 to 1.5 metres. Pavement width is also inadequate in Greater Hume Shire.
20.3	Multiple Bridge Assessments Required *Greater Hume, Wagga Wagga City LGAs*	There are multiple bridges along the route that have not been assessed as suitable for use by HML vehicles.
20.4	Restricted B Double Access *Greater Hume, Wagga Wagga City LGAs*	Restricted access in Wagga Wagga LGA the section is not approved for use by B-doubles due to poor horizontal and vertical alignment and narrow seal width.
21. Coolac to Cootamundra Rd, MR87		
21.1	HML Route Approval *Cootamundra-Gundagai LGA*	HML approval has been granted within Cootamundra Shire but not for the rest of the route.
21.2	Reef Creek Bridge *Cootamundra-Gundagai LGA*	Bridge requires assessment for HML usage.

21.3	Cullinga Creek Causeway flooding *Cootamundra-Gundagai LGA*	Requires upgrading to reduce danger and inconvenience of flooding.
21.4	Intersection Geometry at Cowcumbla Street *Cootamundra-Gundagai LGA*	The intersection requires a realignment and turning lanes.
21.5	Pavement Strength *Cootamundra-Gundagai LGA*	Cowcumbla Street requires pavement strengthening and widening.
21.6	Drainage Upgrade *Cootamundra-Gundagai LGA*	Upgrade is required for Muttama Creek to reduce flooding and freight diversion.
22. Coolamon to The Rock, MR543		
22.1	Mundowy Bridge not Assessed *Wagga Wagga City LGA*	The Bridge which spans the Murrumbidgee River is not assessed or approved for B Double access.
22.2	Fort Street Bridge not Assessed *Lockhart LGA*	The Bridge spans Burkes Creek and is not assessed or approved for HML.
23. Tooma Road, MR628		
23.1	B Double Restriction *Snowy Valleys LGA*	The B Double route stops approximately 50 kms south of the Maragle Rd turnoff to Khancoban.
23.2	Road too Narrow at Clarke's Hill *Snowy Valleys LGA*	Vehicles that meet a B-Double on this section are forced to the edge of the seal or onto the road verge. The Road needs to be widened at this point.
24. Jingellic Road, MR331		
24.1	Vertical and Horizontal Alignment *Snowy Valleys LGA*	Road has poor alignment in a number of locations.
24.2	Road Width *Snowy Valleys LGA*	Some parts of the road have inadequate width for large vehicles.

25. Culcairn-Holbrook Road, MR331		
25.1	Road Width and Strength *Greater Hume LGA*	About 5 kms of road between Morven and Holbrook requires widening by 1.5 metres and pavement strengthening.
25.2	Willow Bend Creek Bridge *Greater Hume LGA*	Bridge needs widening to improve safety.
26. Federation Way, RR131 *(as a result of council mergers this route is longer part of the REROC Region)*		
26.1	Pavement Inadequate *Federation LGA*	Road pavement width and strength is deficient and does not meet requirements for heavy vehicle traffic.
26.2	Poor Alignment *Federation LGA*	There is poor vertical and horizontal alignment in a number of locations
26.3	Flooding *Federation LGA*	Road is subject to flooding and closure during prolonged wet weather
27. Kywong - Howlong Road, MR370		
27.1	Pavement width and strength *Greater Hume LGA*	Inadequate to meet the demands of heavy vehicles for approximately 30kms in length within Greater Hume Shire
28. Broadleaf Park Road, RR7602		
28.1	Pavement Strength *Snowy Valleys LGA*	Pavement needs to be reinforced particularly outside loaded wheel path in an area where persistent pavement failures occur on curves and steep gradients
29. Ardlethan Township, Local Road, Coolamon Shire		
29	No constraints identified *Coolamon LGA*	
30. Combaning Road, Local Road, Temora and Junee Shires		
30.1	Intersection Upgrade *Junee LGA*	Intersection with Old Cootamundra Road requires standardization

31. Eunony Bridge Road - Byrnes Road, Local Road, Wagga Wagga City		
31.1	Eunony Bridge not suitable for use by CML or HML Vehicles *Wagga Wagga City LGA*	The Bridge does not take HML vehicles this restricts access to Bomen Industrial Area the proposed RIFLH and Qube Logistics which operates at Harefield. HML vehicles must travel through Wagga Wagga on the Sturt Highway and the use the Gobbagumbalin Bridge to access Bomen.
32. Harefield Road, Local Road, Junee Shire		
32.1	Road Geometry and Bridge *Junee LGA*	The Eunony Bridge at Wagga Wagga is not assessed and the road geometry does not support the use of HML
33. Old Narrandera Road, Local Road, Wagga Wagga City		
33.1	Bridge and route not assessed *Wagga Wagga City LGA*	Bridges over several creeks along the road have not been assessed for use by HML vehicles.
34. Courabyra Road, Local Road, Tumbarumba Shire		
34.1	Weight Limit on Courabyra Road *Snowy Valleys LGA*	There is a 15 tonne limit between Batlow Road and Taradale Road that applies to about 6 kilometres of the road, the road requires strengthening for the limit to be removed.
34.2	Pavement width and seal width inadequate *Snowy Valleys LGA*	Pavement is inadequate for use as bypass option.
35. Dirnaseer Road/Suttons Lane, Local Road, Cootamundra Shire		
35.1	Railway Bridge not assessed *Cootamundra-Gundagai LGA*	The rail bridge on Dirnaseer Road has not been assessed for HML.
35.2	Bridge Width Inadequate *Cootamundra-Gundagai LGA*	Width of the Bridge restricts traffic to single vehicle travel at all times.
36. Coppabella Road, Local Road, Greater Hume Shire		
36.1	Half the Road is unsealed *Greater Hume LGA*	Road is unsealed, has poor pavement and vertical and horizontal alignment.

36.2	Single lane bridge *Greater Hume LGA*	The bridge is insufficient to meet growing demands by industry
37. Grubben Road, Local Road, Greater Hume and Lockhart Shires		
37.1	Inadequate stacking space/accommodation for long vehicles *Lockhart LGA*	Requires that B-Doubles must travel through the Henty CBD, which adds time to the journey and impacts on the safety and amenity of the CBD.
37.2	Unsealed Road *Lockhart LGA*	Road requires sealing in Lockhart Shire
37.3	Narrow Culverts *Lockhart LGA*	Narrow culverts in Lockhart Shire
37.4	Flooding *Lockhart LGA*	Road is impassable for heavy vehicles after prolonged wet weather
38. Bombowlee Creek Road, Local Road, Tumut		
38.1	Bridge Re-alignment *Snowy Valleys LGA*	Bridge located 10.4 kms from the Wee Jasper Rd requires realignment
38.2	Inadequate pavement strength and width *Snowy Valleys LGA*	Pavement requires strengthening and road requires climbing/overtaking lanes.
39. Bygoo Road, Local Road, Coolamon Shire		
39.1	Deficient road width for Road Trains *Coolamon LGA*	Approximately 5 kms of the road has insufficient width to support use by road trains.
39.2	Deficient pavement strength for Road Train and HML Use *Coolamon LGA*	Road is of poor structural standard and is largely earth formed with seal.
39.3	Intersection geometry unsuitable for road trains *Coolamon LGA*	Road geometry through Ardlethan is unsuitable and does not cater for road train turning circle requirements.
40. Rannock Road, Local Road, Coolamon shire		
40.1	Deficient road pavement for HML *Coolamon LGA*	Road has insufficient pavement strength to support use by HML vehicles and road trains

40.2	Drainage Structures require Assessment *Coolamon LGA*	Drainage Structures at Mimosa Creek requires assessment to determine if they are capable of supporting HML and road train usage
41. Adjungbilly Road, Local Road, Cootamundra-Gundagai Shire		
41.1	Deficient Road width for HML *Cootamundra-Gundagai LGA*	Road width is insufficient to support use by HML vehicles

CONSIDERATION OF THE PLAN AGAINST RELEVANT STATE PLANS

REROC recognises that this Plan operates within a wider context of NSW State planning. Therefore REROC has identified the goals within each of the relevant state planning instruments that are captured by this Plan as follows:

NSW State Priorities

The following State Plan goals would be addressed through the implementation of this Plan:

- Creating Jobs
- Improving Road Travel Reliabilty
- Building Infrastructure

NSW Master Transport Plan

The following Master Transport Plan objectives would be addressed through the implementation of this Plan:

- Support economic growth and productivity
- Support regional development
- Improve safety and security
- Improve sustainability
- Strengthen transport planning processes

NSW Freight and Ports Strategy

The following Freight and Ports Strategy actions would be addressed through the implementation of this Plan:

- Action 1A – Identify freight movements and network demand
- Action 1C – Develop a seamless interstate freight network
- Action 2A – Identify and protect strategic freight corridors
- Action 2F – Co-ordinate regional infrastructure and service provision

Regional Transport Plan

The following actions would be addressed through the implementation of this Plan:

- Improve cross-border connectivity
- Invest in the road network
- Improve road safety
- Invest in road upgrades

PART THREE: GOALS AND STRATEGIES

GOAL ONE:

Remove identified road constraints within the region by 2021.

In developing this Plan the REROC members identified a number of constraints that act as barriers to the efficient transport of freight through and within our Region. REROC recognises that it is unrealistic for every constraint to be addressed and therefore an assessment matrix was developed with a view to prioritising the constraints so that informed investments could be made. We have also made use of the BCR developed by Transport for NSW to further inform the prioritisation process. In addition we believe it will also provide opportunities to address works that can be undertaken on a collaborative basis through resource sharing with other councils, relevant state and federal agencies or through activities such as group tendering.

The assessment matrix considered a number of factors including the history of fatalities, the level of road use, the type of freight transported, impacts on local amenity and regional economic outcomes. The matrix is reproduced at Appendix 2.

STRATEGIES

1. Utilise the priority assessment of roads to undertake preliminary costings and seek funding to address identified constraints.
2. Identify and implement initiatives that facilitate councils working collaboratively to address identified constraints.
3. Identify opportunities for councils to work in collaboration with State and Federal governments and agencies to address identified constraints.

GOAL TWO:

Develop a network of identified freight corridors that facilitate the efficient and effective movement of freight within and through the region.

This goal aims to direct investment into designated freight corridors, creating routes that provide optimal conditions for road freight.

One of the challenges which all councils are facing as a result of the growth in freight transport on rural roads is that the roads are often unsuited to constant and prolonged use by heavy vehicles. While much discussion has focused on “last mile” issues councils recognise that country roads with poor pavement strength and tight turns also undermine efficient road transport. The region includes a significant number of bridges that have not been assessed for HML use. In addition the limited knowledge about the capacity of drainage structures on many rural and regional roads has the potential to further undermine efficient transport movement when roads are subject to flooding.

The problems have been exacerbated by a growing trend by grain companies to consolidate collection at large sites which has resulted in grain being transported by road over much longer distances.

In addition the downgrading of the branch line infrastructure has meant that instead of grain being transported to its closest collection point by road and then to an aggregation point using a branch line, most grain is being transported by road directly to aggregation points. This has significantly changed road use profiles, where once country roads were dominated by small transport vehicles councils are now finding increasing use of HML vehicles on roads that were not designed to accommodate them.

It would be highly inefficient for councils and the State to attempt to upgrade every road that is being used. It therefore makes economic sense to develop and promote designated transport corridors where local, State and Federal governments can agree to focus investment. The strategies in this area aim to achieve that goal.

STRATEGIES:

1. Work with industry and the State Government to identify existing corridors and their constraints.
2. Promote the use of designated regional freight corridors to users and potential users.
3. Develop long term plans to fund improvements for roads that form part of an identified freight corridor.
4. Encourage transport and logistics development on identified corridors through planning and economic development initiatives.

GOAL THREE:

Support the development and implementation of integrated freight transport solutions.

REROC and its member councils are committed to the implementation of integrated freight transport solutions. This means that multiple transport modes should be available and utilised to provide the most effective transportation options. This includes the effective use of branch lines and air transport where appropriate. The strategies that will be pursued are as follows:

STRATEGIES

1. Promote the use of multiple transport modes for freight movements.
2. Support the use of branch lines for freight movement.
3. Work with industry, State and Federal agencies to develop and implement integrated transport solutions.

GOAL FOUR:

Support the growth and development of logistics' solutions that improve freight movement.

The REROC region's unique geographic location makes it ideal for the development and growth of logistics' solutions such as freight hubs, freight forwarding companies and transport businesses.

New and expanding logistics' businesses benefit the entire region and therefore it is in the region's interests to facilitate the growth of these enterprises. The strategies that will be pursued are:

STRATEGIES

1. Work collaboratively with industry to identify logistics solutions for the region that improve freight movement.
2. Source funding that supports the growth and development of logistics solutions.

PART FOUR: REVIEW OF ROAD ROUTES OF REGIONAL SIGNIFICANCE

NATIONAL & STATE ROADS

1. HUME HIGHWAY (M31)

REROC LGAs on Route: Greater Hume, Wagga Wagga, Cootamundra-Gundagai
Major NSW towns on route: Albury, Holbrook, Gundagai, Goulburn, Sydney
Major Industries Serviced: General Freight, Tourism

The Highway is the major route for Sydney to Melbourne traffic. The final upgrade has been completed making the route dual carriage way for its entire length, it is expected that the improvement will result in some changes to traditional traffic patterns for heavy vehicles.

Sheahan Bridge at Gundagai is not approved for A-Doubles (photo NSW RMS)

The industry's move to A Doubles has resulted in the identification of a problem with the Sheahan Bridge at Gundagai. The Bridge was duplicated in 2009, the original bridge which services northbound traffic is not approved for A-Double vehicles, councils in the region are now being asked to approve A-Double routes on regional roads as transport operators try to identify alternative routes to resolve the problem.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

1.1 *Changing Traffic Patterns* – the completion of the dual carriageway may alter traditional traffic patterns diverting traffic to roads that link with the major highways e.g. Burley Griffin Way which links the Hume Highway with the Newell Highway.

1.2 *Sheahan Bridge at Gundagai for north bound traffic* – the bridge is not approved for A-Double transport,

2. OLYMPIC HIGHWAY (MAIN ROAD 78, ROUTE NUMBER A41)

REROC LGAs: Greater Hume, Lockhart, Wagga Wagga, Junee, Cootamundra-Gundagai
Major towns on route: Culcairn, Henty, Wagga Wagga, Junee, Cootamundra, Young, Cowra
Major Industries Serviced: Grain, Livestock, General Agriculture, Tourism, alternative route between Melbourne and Sydney, alternative route between Melbourne and Brisbane.

The Olympic Highway runs for 316 kms from Table Top in the south of the REROC region to Cowra in the north. It crosses through the towns of Culcairn, Henty, The Rock, Wagga Wagga, Junee and Cootamundra within the REROC region and then further north to Young and Cowra.

The Olympic Highway is a major freight route and an alternative route to the Newell Highway linking Victoria to Queensland. It is also an alternative route to the Hume Highway for traffic between Melbourne and Sydney.

The new Kapooka Bridge was opened in July 2016

The Olympic has undergone three major upgrades in the last 18 years. The 7 km Gobbagumbalin Deviation at Wagga Wagga was opened in 1997. The Deviation which included a new bridge ensured that the Highway was no longer impacted by flooding in north Wagga Wagga. In 2005 a new bridge over rail opened just south of Gerogery which addressed the problem of an unsafe road/rail interface.

In late 2014 a $19.5 million project to replace Wagga Wagga's 132 year-old Kapooka Bridge and realign its approaches was announced. The new bridge is expected to be open in mid-2016 removing a substantial impediment to heavy vehicle movement on the Highway.

For much of its length, the Highway follows the Main Southern Rail Line, which has meant that as branch lines have closed, grain that used to be stored in branch line silos is now being transported along the Olympic Highway to major grain receival points.

At Culcairn, Bethungra and Illabo the Olympic Highway takes sharp left and right hand bends to cross the Main Southern Rail Line, there are bells and gates at the crossings.

At Cootamundra, the Highway runs under the Main Southern Rail Line There have been significant problems with this underpass, known as The Gap Bridge. There is an alternative High Vehicle detour route, Suttons Lane (see Route Number 35) around the Bridge which adds approximately 8 kms to the journey. However because of the additional

The Gap Bridge, Olympic Highway at Cootamundra

kilometres heavy vehicle drivers often choose to attempt to pass under the Bridge by deflating the vehicle's airbags and driving down the centre of the road. On occasion drivers misjudge their capacity to clear the underpass and as a consequence hit the bridge, disrupting both road and rail services.

Our member councils are concerned that should a major incident occur at the underpass it would not only restrict access to the Olympic Highway it would also render the Main Southern Rail Line inoperable.

Approximately 30 kilometres north-east of Illabo the Highway crosses the Main Southern Railway line at a right angle. There have been over 50 accidents in the last 10 years at the crossing, many involving heavy vehicle roll overs and one causing a major train crash.

Right angled bend on the Main Southern Rail line north of Illabo

The Roundabout at Wallendbeen

All councils on the route are reporting increasing traffic on the Highway, particularly heavy vehicles travelling from Melbourne to Brisbane and return. The roundabouts on the highway at Culcairn CBD and Wallendbeen are also considered to be a safety issue and an impediment to oversize vehicles that are required to use the route.

There are several locations, due to the Highway running parallel to the Main Southern Line where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line. This limits access and usage of local roads.
For example where Grubbin Road in Greater Hume Shire intersects the Highway just north of Henty, there was a near miss with an XPT and a B-Double. Grubben Road provides the main access to the Henty Graincorp facility.

In addition the Highway is experiencing increasing use by forestry industries as a result of the transport of logs sourced in the Bathurst/Oberon region and transported south to supply the Visy Mill in Tumut

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

2.1 *The Gap Bridge Underpass at Cootamundra* – high vehicle access is limited at this point on the Highway. In addition the Main Southern Rail Line is vulnerable at this point from accidents that occur when heavy vehicle drivers misjudge the underpass' clearance

2.1 *Roundabout at Culcairn CBD* – is an impediment to oversize vehicles that use the route.

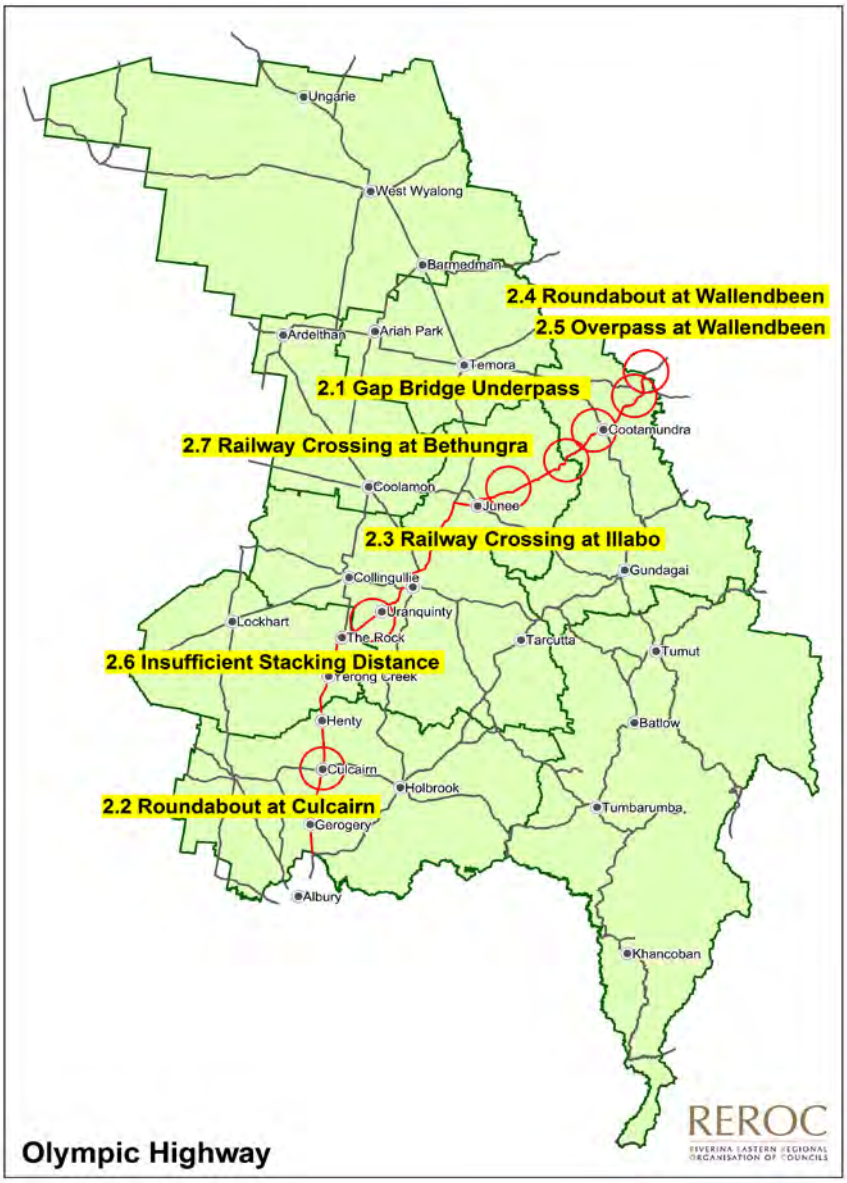
2.2 *Railway Crossing at Illabo* – this is right angled crossing in a 100 km zone requires realignment.

2.3 *Roundabout at Wallendbeen* – acts as an impediment to oversize vehicles that use the route.

2.4 *Overpass at Wallendbeen* – the restricted road width is an impediment to oversize vehicles.

2.5 *Insufficient Stacking Distance* – there are several locations, due to the Highway running parallel to the Main Southern Line where the stacking distance is insufficient for B-Doubles turning off the Highway and waiting to cross the rail line. This limits access and usage of local roads.

2.6 *Railway Crossing at North East o Bethungra* – this is right angled crossing in a 100 km zone requires realignment.



3. NEWELL HIGHWAY (STATE HIGHWAY 17)

REROC LGAs: Coolamon, Bland
Major NSW towns on route: Jerilderie, Narrandera, West Wyalong, Parkes, Dubbo, Moree
Major Industries Serviced: General Freight, Tourism

The Newell Highway is the longest highway in NSW, it runs the length of the State from the Victorian border to Queensland. Over a 1,000 kms in length the Highway starts at Tocumwal in Victoria and finishes at Goondiwindi in Queensland.

The Newell is the main inland route for traffic flowing between Queensland and Victoria. Councils in the REROC region have reported that there is increasing use of the Olympic Highway-Goldfields Way route to access the Newell. It is believed that this reflects the quality of the Newell between Tocumwal and Narrandera; this route is slower than using the Hume Highway and then the Burley Griffin Way (meeting the Newell just east of Ardlethan) or the Hume Highway and then the Olympic Way and Goldfields Way (meeting the Newell at West Wyalong).

Newell Highway at Grong Grong (Image © Rob Tilley)

There is an issue with the Highway at Grong Grong where there is a right angle turn leading into the town. The RMS reports that there is a crash history in relation to that location due to sharpness of the turn.

There is a Highway bypass at West Wyalong, the bypass commences just south of town, it follows the southern side of the railway line crossing over Railway Street and then follows the line again until it re-joins the Highway at Wyalong. The bypass route has problems because the south-western connection is a sharp right angle turn and the crossing over the railway includes two sharp right angle turns in quick succession.

There is no designated location for coupling and de-coupling at West Wyalong and consequently this is occurring in random locations wherever a heavy vehicle driver believes there is sufficient space to allow the drop-off of a trailer.

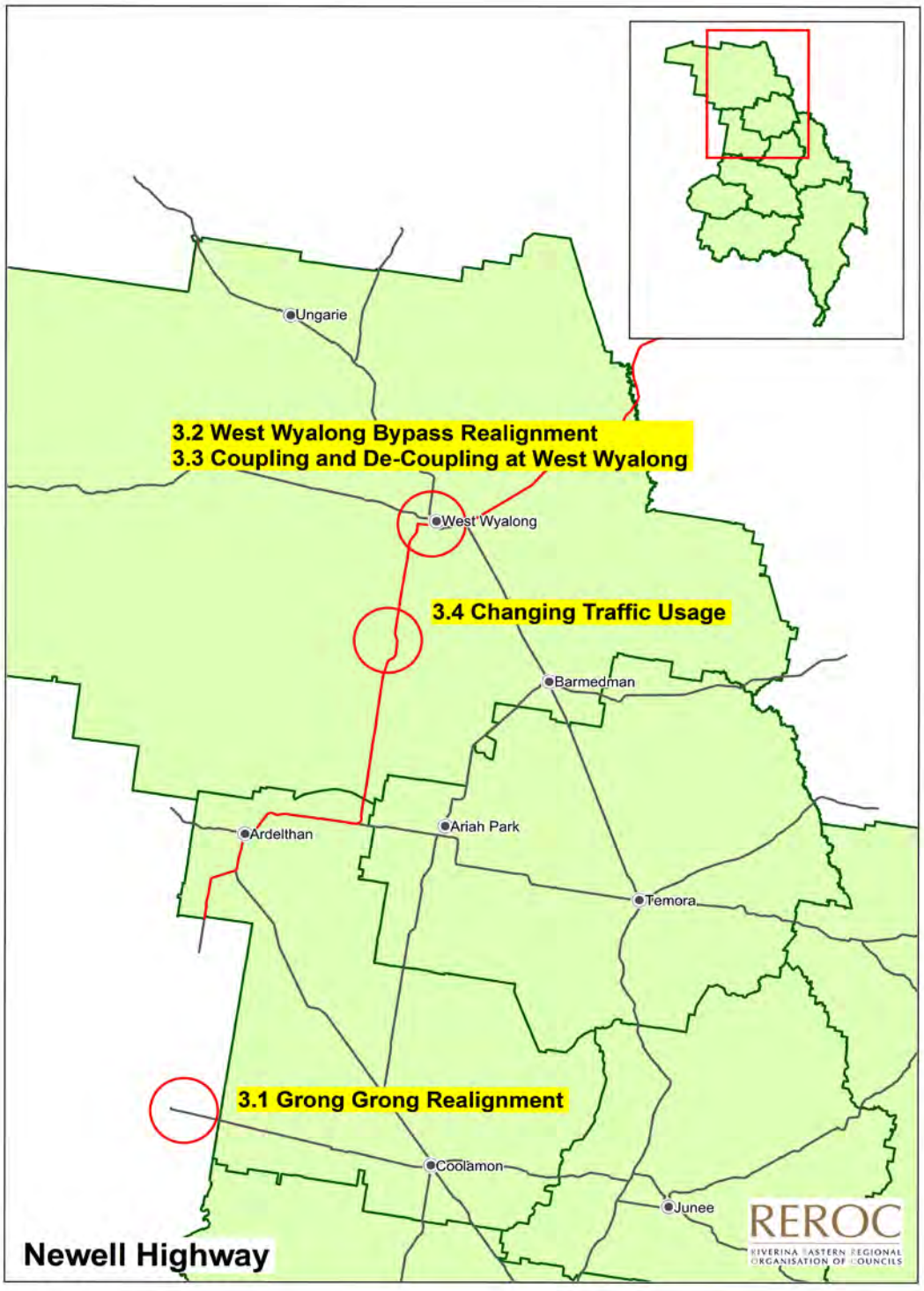
CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region:

3.1 West Wyalong Bypass Realignment – bypass requires realignment at the south-western intersection and in relation to the railway crossing to reduce angles.

3.2 *Coupling and De-coupling at West Wyalong* – a designated location for coupling and uncoupling needs to be established at West Wyalong.

3.3 *Changing Traffic Usage* – heavy vehicles are choosing the Hume Highway-Olympic Way-Goldfields Way route or the Hume Highway-Burley Griffin Way to link to the Newell significantly changing traffic patterns for those routes.



4. MID WESTERN HIGHWAY (NATIONAL ROUTE 24, ROUTE NUMBERS A41 AND B64)

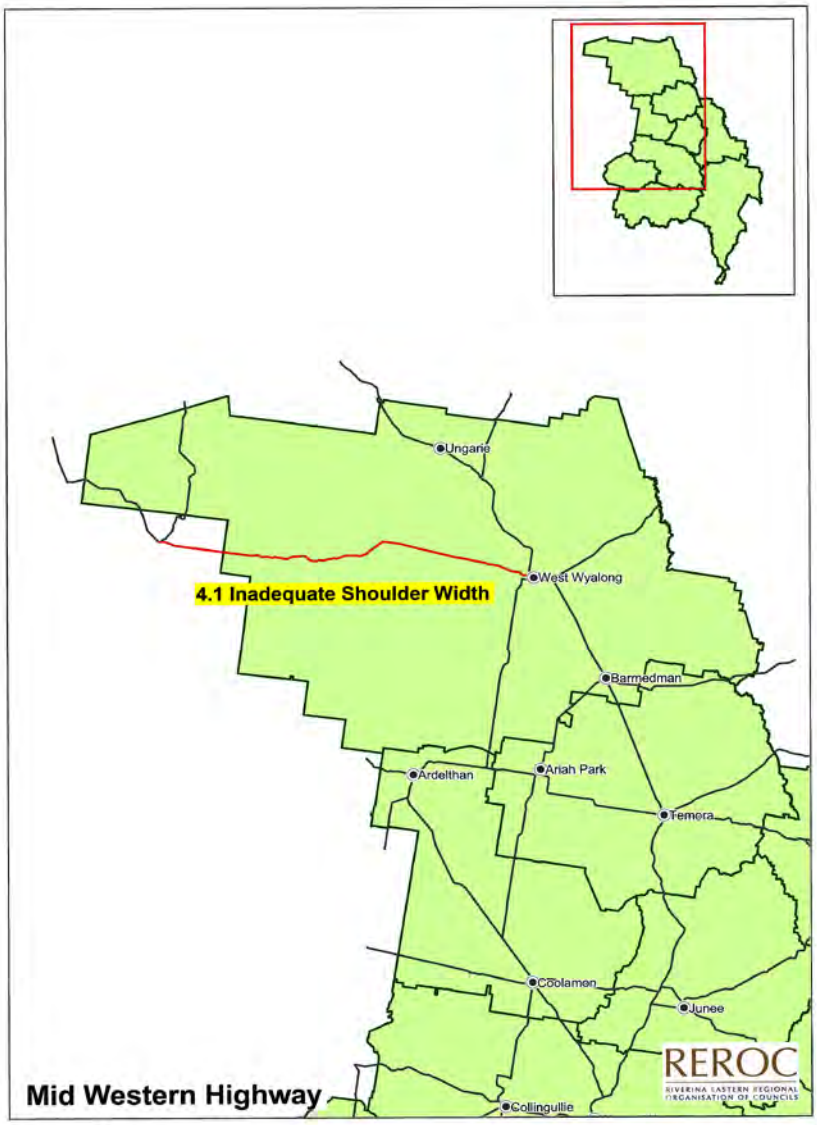
REROC LGAs: Bland
Major towns on route: Bathurst, Cowra, West Wyalong, Hay
Major Industries Serviced: Grain, General Freight, Tourism

The Mid-Western Highway is 522 kms in length running from Bathurst in the east to Hay in the West. It is the major east-west link for central NSW.

An impediment to increasing heavy vehicle usage is the narrowness of the Highway. There are long lengths of road where the shoulder width does not adequately support use by HML vehicles

CONSTRAINT IDENTIFICATION:

4.1 *Inadequate Shoulder Width* – the Highway includes long lengths of road without sufficient shoulder width making it difficult for vehicles to share the road.



5. BURLEY GRIFFIN WAY (ROUTE NUMBER B94)

REROC LGAs: Cootamundra-Gundagai, Temora, Coolamon
Major towns on route: Young, Harden, Temora, Griffith
Major Industries Serviced: Grain, Livestock, Forestry/Timber, Wine, Horticulture, Tourism, alternative route between Melbourne and Brisbane via link to Newell Hwy.

The Burley Griffin Way is 278kms in length and runs from Hume Hwy at Bowning to the Kidman Way at Griffith. The road connects the Olympic Way with the Hume Highway and serves as the major route between Griffith, the Murrumbidgee Irrigation Area and Sydney. It also connects with the Newell Highway 48 kms west of Temora.

Burley Griffin Way at Wallendbeen is not approved for HML Use.

Councils expect that the Road will experience higher heavy vehicle traffic flows as a result of the Hume Highway bypass opening at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to travel down the Hume Highway and then turnoff at Bowning taking the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell.

This road route has become the easiest and quickest way for the freight to move from the MIA to either the Newell or Hume Highways. The operation of a new Western Riverina Intermodal Freight Terminal at Wumbulgal in Leeton Shire and the proposed hub at Widgelli in Griffith City LGA to service the MIA may shift more freight from road to rail.

Causeways on the Burley Griffin Way are subject to flooding

The roundabout located at the intersection with Hoskin's Street, Temora's main street, is a constraint to the movement of heavy vehicles. Drivers have difficulty negotiating the tight turn and consequently regularly ride up on the roundabout structure in order to get through.

There is a "S Bend" east of Temora near Springdale where the road travels over a railway line both road widening and shoulder widening are required.

There are also constraints caused by the large causeways that occur on the road between Temora and Wallendbeen that are not serviced by adequate culverts. The road has been closed a number of times as a result of heavy rains; water can rise to over half a metre, flooding the Burley Griffin Way

and Old Wagga Road intersection. At the causeway adjacent to Quade's Lane water can run to almost half a metre in height, as a result the road is closed once or twice every year due to flooding.

Constraints also exist at Wallendbeen where there is a roundabout and an overpass, both impede the movement of oversize vehicles.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

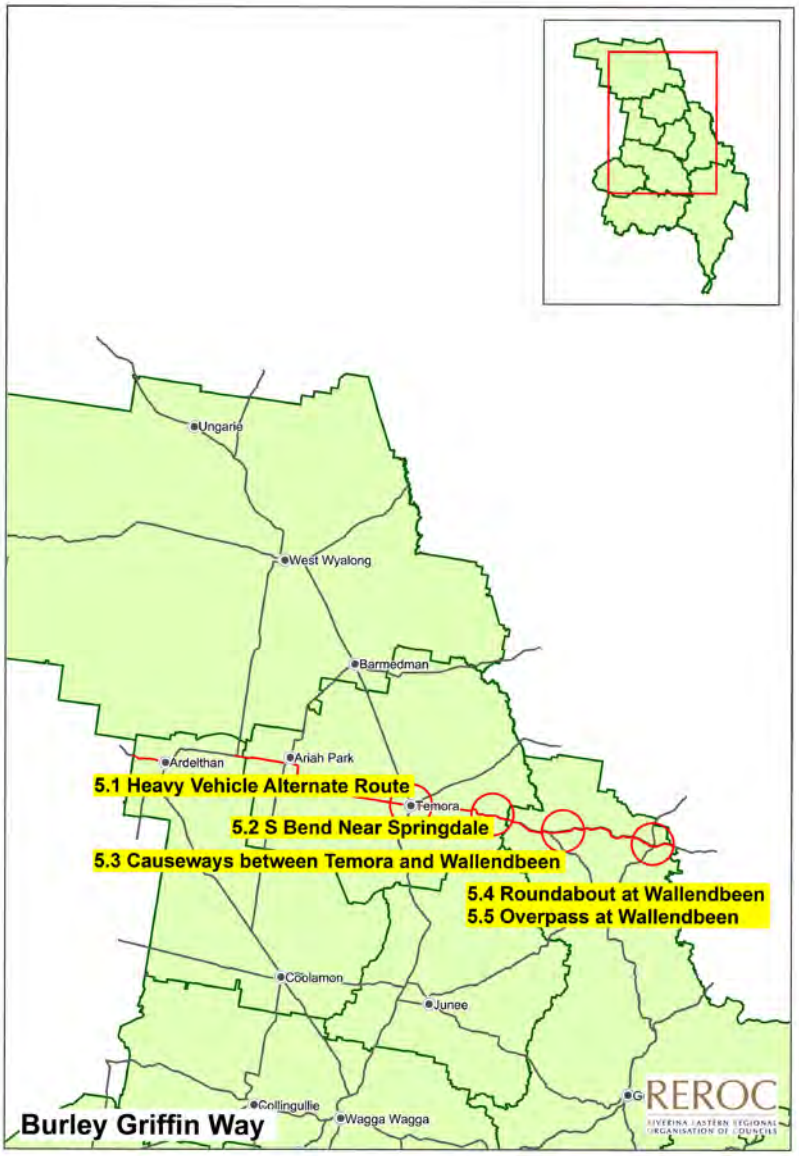
5.1 *Heavy Vehicle Alternate Route* is required to address the problem with the Roundabout in Hoskins Street and to remove heavy vehicle movements from the CBD area.

5.2 *"S Bend" near Springdale* – the road requires re-alignment to remove this impediment.

5.3 *Causeways between Temora and Wallendbeen* – culvert sizes are too small to cope with large rain events, resulting in flooding events and road closures.

5.4 *Roundabout at Wallendbeen* – acts an am impediment to oversize vehicles that use the route.

5.5 *Overpass at Wallendbeen* – the restricted road width is an impediment to oversize vehicles.



6. GOLDFIELDS WAY (MAIN ROAD 57, ROUTE NUMBER B85)

REROC LGAs: Junee, Temora, Bland
Major towns on route: Temora, West Wyalong
Major Industries Serviced: Grain, Livestock, Tourism, alternative route between Melbourne and Brisbane.

The Goldfields Way begins 8 kms west of Junee and terminates at West Wyalong, where it joins the Newell Highway. The Road links with the Olympic Highway to create an alternative route to the Newell Highway for those travelling between Brisbane and Melbourne. The Road is also used as a connection between the Bomen Industrial Area in Wagga Wagga and the Newell Highway.

Goldfields Way is Temora's Main Street

It is estimated that between 1500 and 2000 vehicles use the Road each day[10]. Goldfields Way runs through Temora's main street creating a negative impact on amenity particularly when stock trucks travel through the town. The street is difficult to navigate for heavy vehicles, slows their progress significantly and is made more dangerous because of the increased interface with pedestrians.

Recent A-Double Road Train movements have necessitated use of residential roads for transport through Temora, which further underscores the need for a Heavy Vehicle Alternative Route. It is anticipated that once the Riverina Intermodal Freight Hub (RIFH) becomes operational that A-Double Road Train movements will increase, creating potential safety issues arising from the interface between the residential and pedestrian use and heavy vehicle use.

Bland Shire Council believes that the section between Barmedman (including Barmedman Main Street) and West Wyalong should not have been approved for Higher Mass Limit vehicles because the pavement is not designed to cater for them. In addition, much of the road is the same level as the area around it and consequently is prone to low level flooding, which impacts on the amount of road maintenance required. The road needs to be raised and the pavement strengthened.

There is an "S Bend" over the railway crossing at Barmedman which is difficult to negotiate for heavy vehicles. The road requires realignment to remove the constraint.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

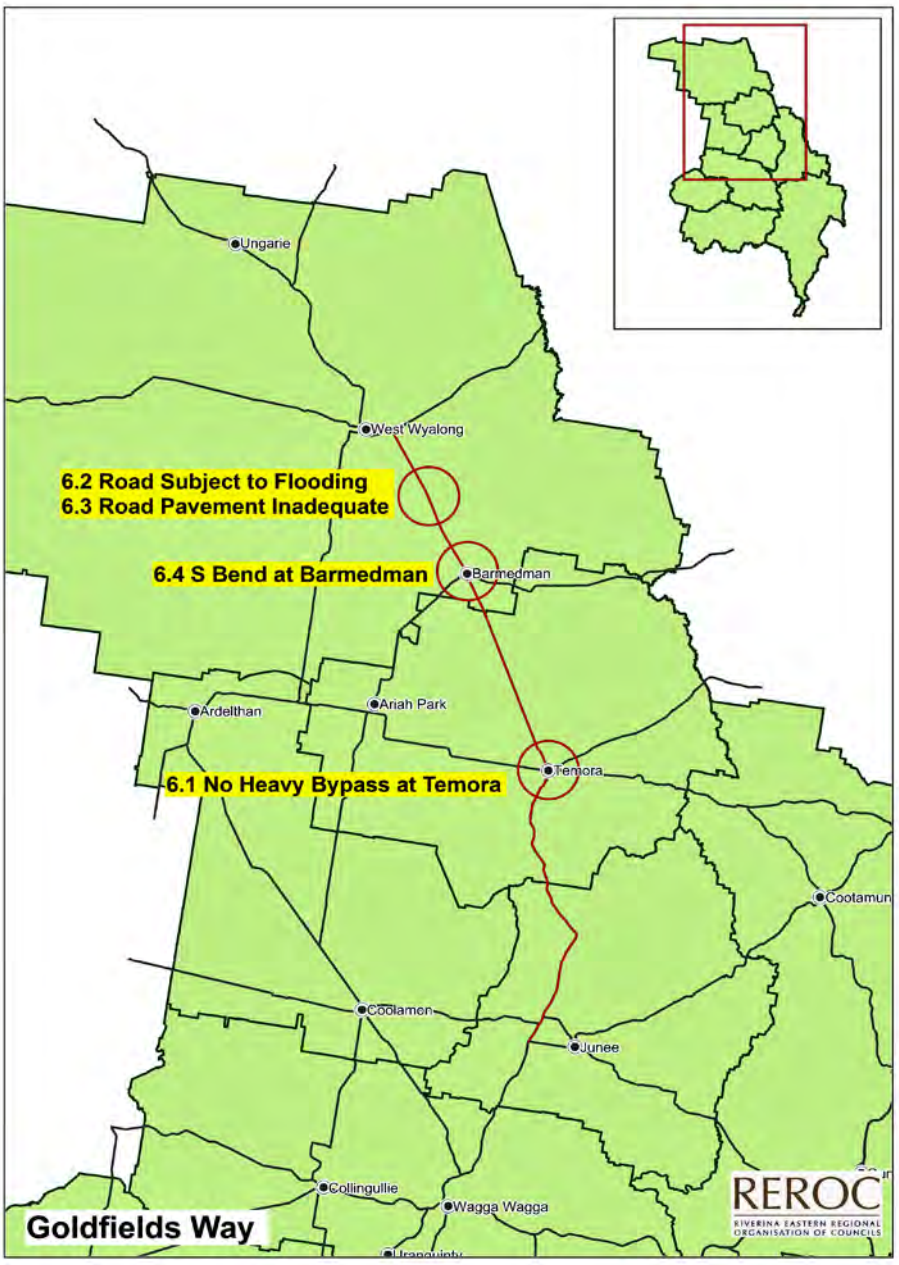
6.1 *No Heavy Vehicle Bypass at Temora* – all heavy vehicles using the Road must travel through the Temora CBD, creating significant inefficiencies for transport operators.

[10] www.ozroads.com.au/NSW/RouteNumbering/State%20Routes/85/sr85.htm

6.2 *Road between Barmedman and West Wyalong is subject to flooding* – the road is the same level as the area around it and as a result is subject to flooding. The Road needs to be raised and the pavement strengthened.

6.3 *Road pavement between Barmedman and West Wyalong is inadequate* - The Road pavement needs strengthening.

6.4 *"S Bend" at the railway crossing at Barmedman* – the Road requires realignment.



7. STURT HIGHWAY (HIGHWAY 20, ROUTE A20)

REROC LGAs on Route: Wagga Wagga
Major NSW towns on route: Wagga Wagga, Narrandera, Hay, Balranald
Major Industries Serviced: General Freight, Tourism

The Sturt Highway is the major east-west link through the Murray-Riverina region, it commences at the Hume Highway junction in the east, travelling west for 985 kms until it reaches Adelaide.

In Wagga Wagga the Highway runs along the southern edge of the CBD, meaning that heavy vehicles are interfacing with residential and local business traffic. The Highway passes under a rail-over-road bridge which limits the height of oversized vehicles that can traverse this section of the Road. A bypass option via the Eunony Bridge is not available because the Bridge has been assessed for HML vehicles and has been found to have structural integrity issues that prevent its use by any vehicle greater than GML.

The rail-over-road bridge on the Sturt Highway at Wagga Wagga

Oversized load that had to be turned back at Wagga Wagga and return to South Australia because of height restrictions on the rail-over-road bridge

A Discussion Paper on alternative route options for the City commissioned by the Committee4Wagga identified three possible bypass routes. Council is **considering the Study's recommendations as well as** other options for more efficient transport outcomes. The Committee has stated its preferred rout is the Southern Route. http://www.committee4wagga.com.au/wordpress/wp-content/uploads/2015/03/C4W_Alternate-Route-Report.pdf)

The Highway carries extremely heavy traffic both for general freight and tourism. A growing issue is the use of Wagga Wagga as an interchange point for heavy vehicle drivers. Council is finding increasing occurrences of loads being decoupled and parked in side streets awaiting interchange with another vehicle. This is creating problems in some areas of the City.

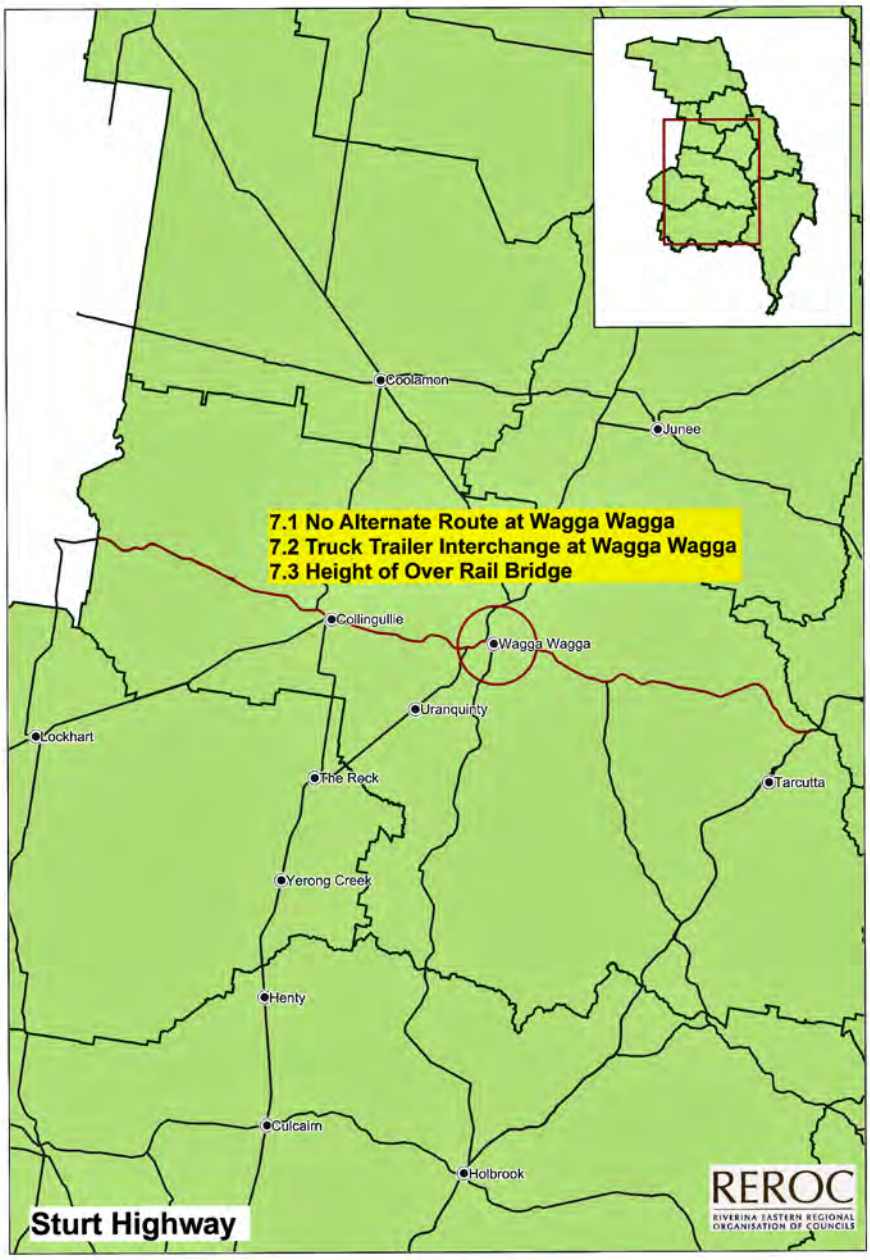
CONSTRAINT IDENTIFICATION:

The following issues have been identified as risks to the successful transport of freight from and through the region:

7.1 *No Alternative Route at Wagga Wagga* – means that heavy vehicles travelling east-west, must travel through part of the Wagga Wagga CBD, interacting with local traffic, pedestrians and two school zones.

7.2 *Truck/trailer Interchanges at Wagga Wagga* – increasing practice of decoupling trailers on side roads to wait for an interchange is causing problems in the City, there are no specialist parking bays currently available.

7.3 *Height of Rail over Road Bridge* - the permissible height stops oversized loads from passing under the bridge.



8. SNOWY MOUNTAINS HIGHWAY (HWY 18, B72)

REROC LGAs: Cootamundra-Gundagai, Snowy Valleys
Major towns on route: Gundagai, Tumut, Cooma
Major Industries Serviced: Forestry/Timber, Tourism

The Highway is 282kms in length running from the Princes Hwy, 5kms north of Bega to the Hume Hwy 26 kms south west of Gundagai.

The Highway is rarely used end to end; however sections of the Highway carry very high traffic volumes, particularly around Tumut and Adelong. The road is very steep in sections and this has resulted in a gradient limitation on the escarpment at Talbingo, restricting access for heavy vehicles.

There are also restrictions for some heavy vehicles travelling west from Tumut to meet the Hume Highway. One of the conditions of consent for the Visy Pulp and Paper Mill is a curfew on heavy vehicles travelling on the Snowy Mountains Highway through Adelong between the hours of 10.00 p.m. and 7.00a.m. The curfew applies 7 days a week and as a result trucks that are working for Visy are required to travel to the Hume Highway via the Gocup Road during those hours.
The Australian Long Distance Owner Drivers Association (ALDODA) estimates that the curfew adds an extra hour of travelling time to each trip.[11]

New bridge constructed over the Adelong Creek at Adelong, opened February 2011. (photo: NSW RTA)

The Highway has poor vertical and horizontal alignment it winds through mountainous country and there are no passing lanes between Adelong and the Hume Highway. There is a narrow almost 90 degree bend on the western exit of Adelong towards the Hume Highway and heavy vehicles that meet on the bend must stop to allow each other to pass.

A new bridge was constructed over the Adelong Creek and the Adelong Flood Channel which opened in February 2011.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

8.1 *Curfew at Adelong* – this creates inefficiencies for heavy vehicle transport but only affects the heavy vehicles servicing the Visy Mill. It also increases traffic on the Gocup Road.

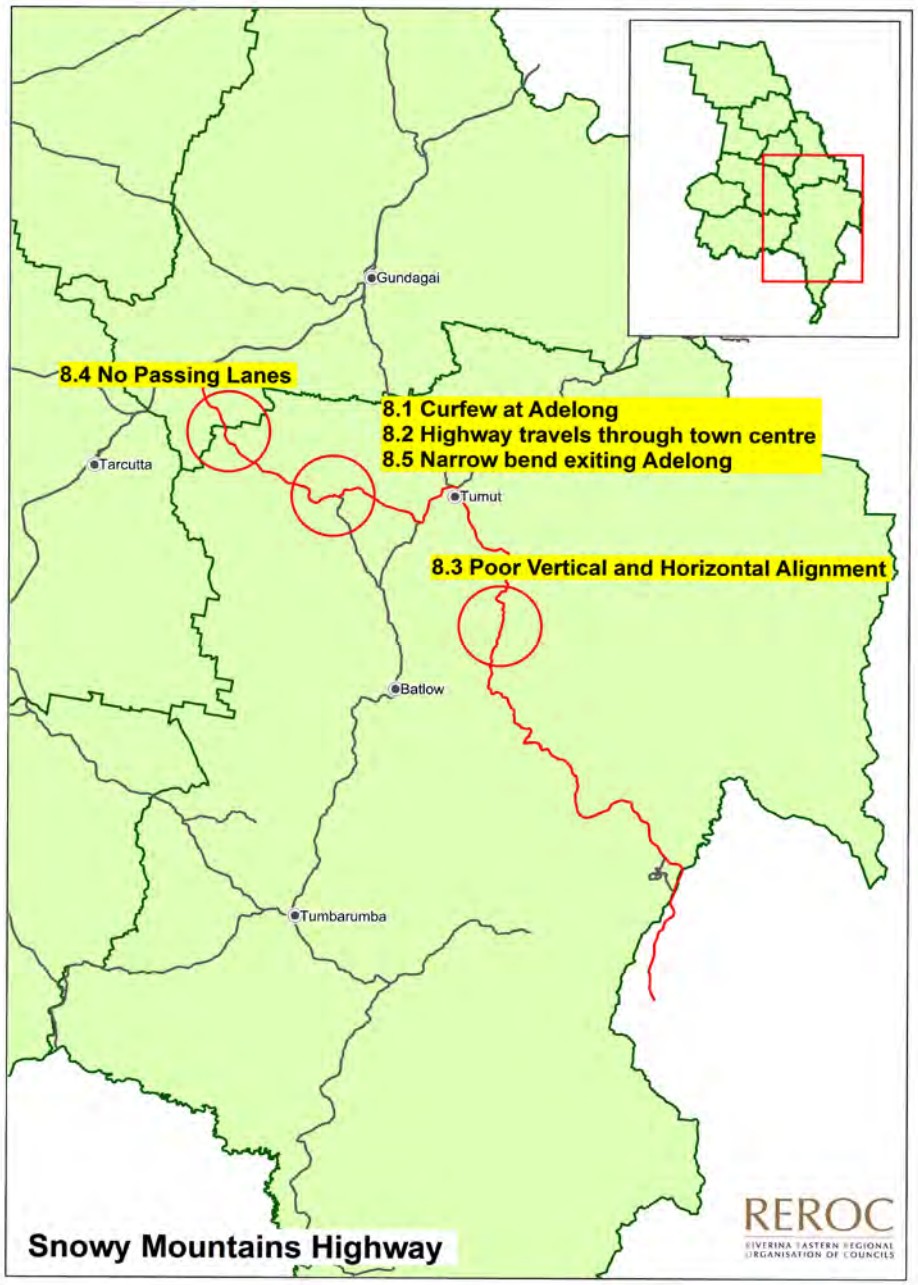
[11] *Australian Transport News,* 2 July 2013, http://www.fullyloaded.com.au/industry-news/articleid/84370.aspx

8.2 *Highway travels through Adelong town centre* - this increases inefficiencies because it increases the interface between the heavy vehicles, pedestrians and residential traffic.

8.3 *Poor Vertical and Horizontal Alignment* – the Highway as poor alignment making it difficult for heavy vehicles to traffic.

8.4 *No Passing lanes* – there are no passing lanes between Adelong and the Hume Highway

8.5 Narrow Bend on Adelong's West Exit – the bend is narrow and almost 90 degrres, heavy vehicles that meet must stop to allow each other to pass.



9. GOCUP ROAD (MAIN ROAD 279)

LGAs: Cootamundra-Gundagai, Snowy Valleys
Major towns on route: Tumut, Gundagai
Major Industries Serviced: Forestry/Timber, Pulp and Paper, Tourism

The Gocup Road is a two lane, 30.1 km transport corridor between Tumut and the Hume Highway at South Gundagai.

The Road services the $620 million per year South West Slopes timber industry. The Gocup Road freight task exceeds 1.075 m/tonnes per year with 550k tonnes outbound and 525k tonnes inbound[12] A study in 2006 showed that the Road carried approximately 234 heavy vehicles and 1,229 light vehicles over its entire length each week day.[13] Since then the traffic has increased.

Log truck accident on the Gocup Road in November 2012.
(photo: Snowy Works and Services)

The Road bears the burden of the night curfew on heavy vehicles coming from Visy Pulp and Paper, which prohibits them travelling through Adelong on the Snowy Mountains Highway. Heavy vehicles leaving the Visy Plant between 10.00p.m. and 7.00a.m. must use the Gocup Road to access the Hume Highway.

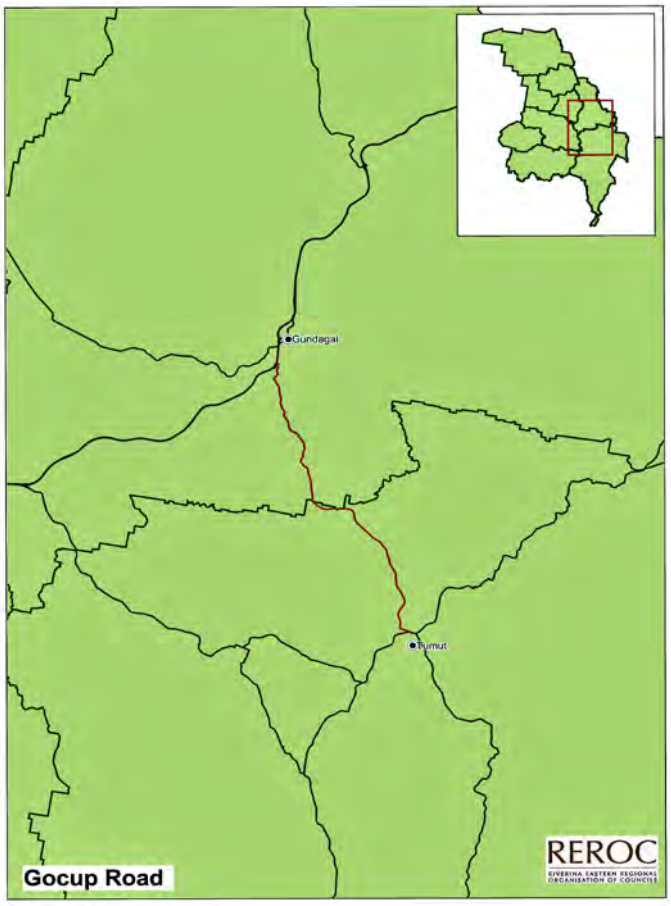
The Road links the Hume Highway and the Snowy Mountains and there are increasing numbers of tourists using the Road. It also links with the Coolac to Cootamundra Road and consequently has become an important connection route for the timber industry as more feedstock is sourced from the west.

In August 2015, a $70 million upgrade of the Road was announced with works to be completed by 2019. The works will address the Road's deficiencies.

CONSTRAINT IDENTIFICATION:

The works being undertaken as part of the $70 million upgrade will address existing constraints.

[12] http://rdasi.org.au/res/RDASI%20Transport%20Infrastructure%20Priorities%20to%20RDAC%20March%202012.pdf
[13] *Engineering Assessment of the Gocup Road between Tumut and Gundagai*, December 2006



10. WAGGA TO TUMBARUMBA (MR284, STATE ROAD/MR384, REGIONAL ROAD)

REROC LGAs: Wagga Wagga Greater Hume, Snowy Valleys
Major towns on route: Tumbarumba
Major Industries Serviced: Forestry/Timber, General Agriculture, Tourism

Known as the Tumbarumba Road in Wagga and Greater Hume LGAs and as the Wagga Road in the Snowy Valleys LGA, the road runs from the Sturt Highway, 16 kms east of Wagga Wagga through Ladysmith across the Hume Highway to Tumbarumba, it is 95kms long. The Road travels through primarily agricultural land and there is some dairying occurring in the Ladysmith area.

The road is burdened by two classifications, in Greater Hume and Snowy Valley LGAs it is a State Road, however in the Wagga Wagga LGA it is a Regional Road. This makes planning and funding

A new interchange was constructed on the Tumbarumba Road as part of the Hume Highway upgrade
(photo: jacksonteece.com)

improvements challenging.

In 2008 an interchange was constructed at the point where the Road crosses the Hume Highway. This major improvement occurred as a result of the duplication of the Hume Highway.

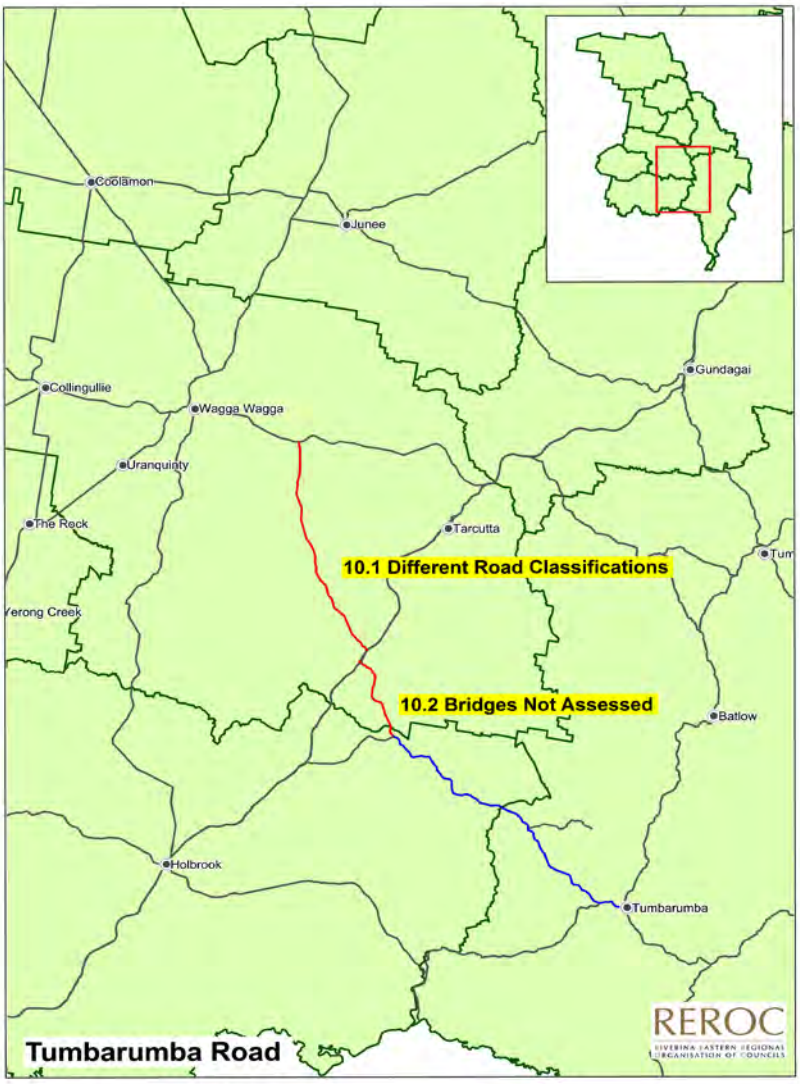
The road is a significant route for the movement of timber products, the section of the Road from Tumbarumba to the Hume highway is used heavily by timber trucks.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

10.1 *Different Road classifications* - The Road carries a number of different classifications which restricts access for heavy vehicles. It is a Regional Road in Wagga Wagga and a State Road in Greater Hume and Snowy Valleys LGAs.

10.2 *Bridges not Assessed* - A number of bridges along the route have not been assessed and therefore are not approved for HML usage.



11. ALPINE WAY (MR677, B400)

REROC LGAs: Snowy Valleys
Major towns on route: Khancoban, Thredbo, Jindabyne
Major Industries Serviced: Tourism

Starting 13 kms west of Khancoban at the junction of the Murray Valley Highway and Tooma Road, the Alpine Way is 120 kms of winding road that passes through Khancoban, Thredbo finishing at Jindabyne; for most of its length it runs through the Kosciuszko National Park.

The Alpine Way is heavily used by tourists during the snow season. The Road is steep and winding and it is subject to closures as result of snow and landslides (see photo opposite). It is unsuitable for use by long vehicles, which impacts on tourism outcomes for the region.

Road closure due to rock fall, 20kms east of Khancoban 22 July 2013.
(photo: Live Traffic NSW, Facebook)

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

11.1 Restricted access for Long Vehicles – access for these vehicles is restricted from Khancoban to Tom Groggin.

11.2 Detours and Bypasses created by RMS – when the road is closed the RMS determines alternative routes, this requires collaboration with councils to determine the most appropriate routes and identify the problems and restrictions on the agreed routes.

12. TUMUT-TUMBARUMBA (BATLOW ROAD, MR85 NORTH), TUMBARUMBA-JINGELLIC ROAD (JINGELLIC ROAD, MR85 SOUTH)

LGAs: Snowy Valleys
Major towns on route: Tumut, Batlow, Tumbarumba
Major Industries Serviced: Forestry/Timber, Tourism

This 93km section of winding road travels from Tumut to Batlow and then to Tumbarumba (Batlow Road) from there to Jingellic (Jingellic Road).

The Road has bridge restrictions in place meaning that the route is unable to support use by HML vehicles. Jackson's Bridge, 7 kms north of Tumbarumba has seen numerous roll-overs and has been earmarked by the RMS for realignment works; however the works are yet to be undertaken.

Rollover at Jackson's Bridge on MR85 North, between Tumut and Tumbarumba

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

12.1 *Realignment of Jackson's Bridge* – access to the bridge is restricted until realignment works are undertaken.

12.2 *Deficient Road Width* – the route is too narrow for HML vehicles.

12.3 *Pavement Strength* – pavement strength is deficient to meet the demands of HML vehicles.

12.4 *Intersection Geometry in Tumbarumba Township* – the current geometry does not accommodate road trains and HML vehicles.

13. RIVERINA HIGHWAY (ROUTE NUMBER: B58)

REROC LGAs: Federation
Major towns on route: Albury, Corowa, Urana, Berrigan, Finley, Deniliquin
Major Industries Serviced: General Freight, Grain, Tourism

Riverina Highway runs from Bethanga Bridge 20 kms east of Albury to meet the Cobb Highway at Deniliquin, it is 230kms in length.

CONTRAINT IDENTIFICATION:

There are no road constraints identified within the REROC region.

REGIONAL ROADS

14. CANOLA WAY (RR243)

REROC LGAs: Junee, Coolamon, Cootamundra-Gundagai
Major towns on route: Junee, Coolamon
Major Industries Serviced: General Agriculture, Grain

This road is 148 kms long, running from the Hume Highway at Gundagai to the Newell Highway at Grong Grong. It travels through the centre of the Junee township, creating issues because of the interface with pedestrians and providing difficulties for heavy vehicles that must contend with some very tight turns.

The road has the potential to link the Hume and Newell Highways however there is approximately 20 kms of road between Nangus and Gundagai that is not approved for B Doubles. Road trains are not able to access to Graincorp terminal at Junee because the HL Robinson Bridge has not been assessed.

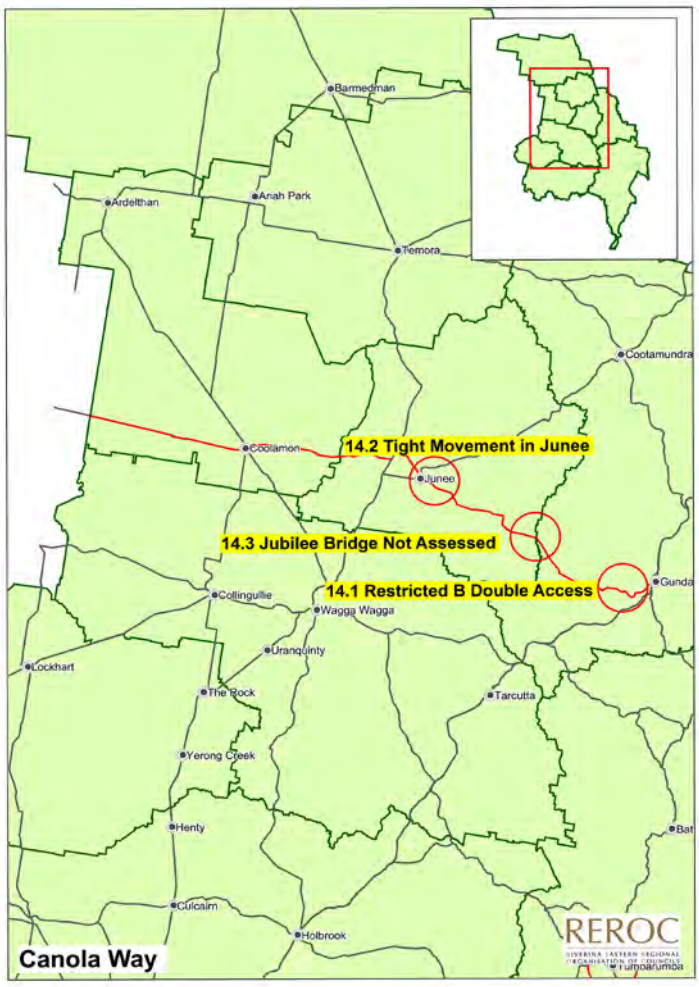
CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

14.1 Restricted B Double Access – while the road connects with the Newell Highway, B doubles cannot reach the Hume Highway because there is no access between Nangus and Gundagai.

14.2 Tight Movement in Junee Township –tight turning movements in town streets, including a four 90 degree turns and one roundabout make travel through Junee township by heavy vehicles difficult.

14.3 Jubilee Bridge Not Assessed – bridge not assessed for HML use



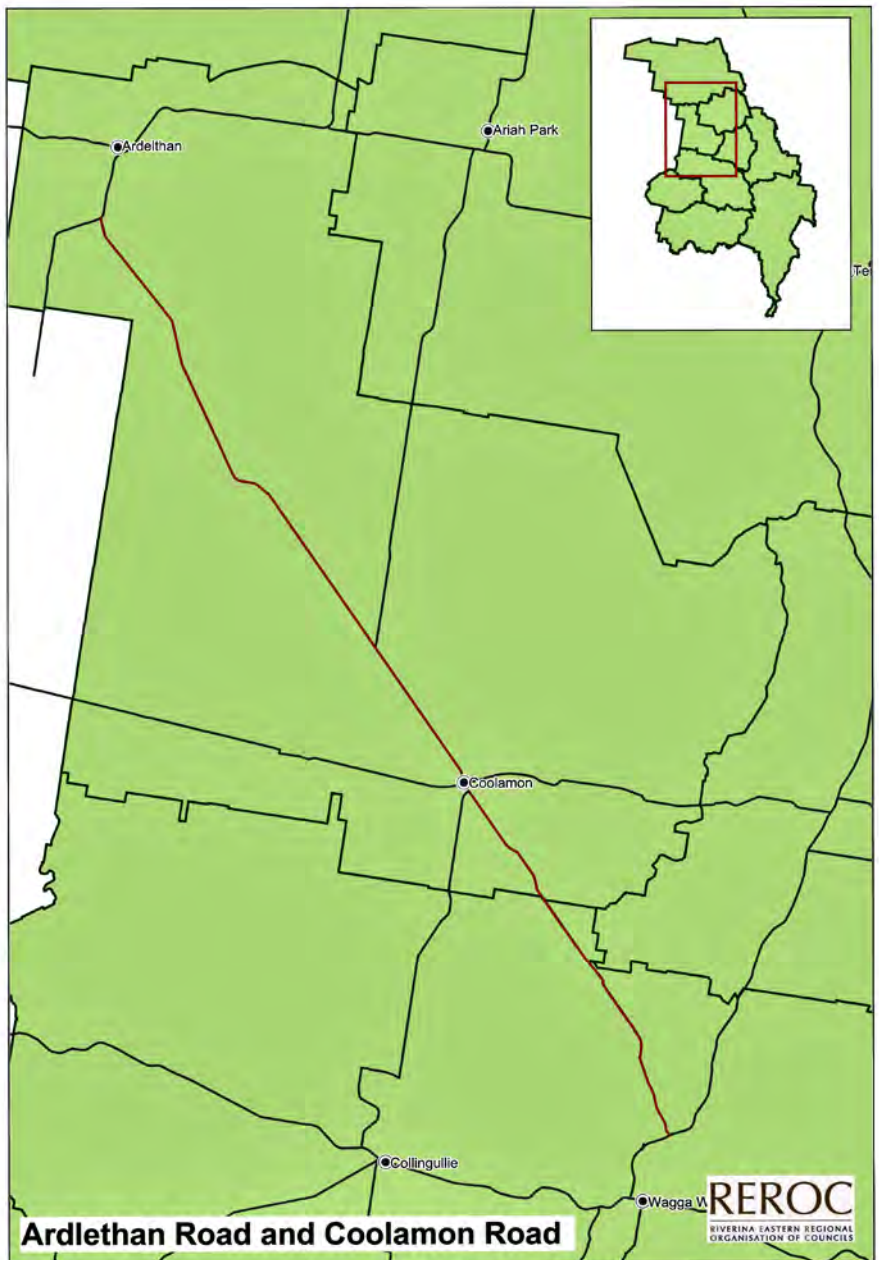
15. WAGGA TO COOLAMON (AADT1730) TO ARDLETHAN (AADT480, MR240)

REROC LGAs: Wagga Wagga, Coolamon, Temora
Major towns on route: Wagga, Coolamon, Ardlethan
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road is primarily used for agricultural purposes but could potentially link the Bomen Industrial Area at Wagga Wagga with the Newell Highway. Constraints previously identified in relation to assessments of bridges over Houghligan's Creek have been addressed.

CONSTRAINT IDENTIFICATION:

No constraints identified



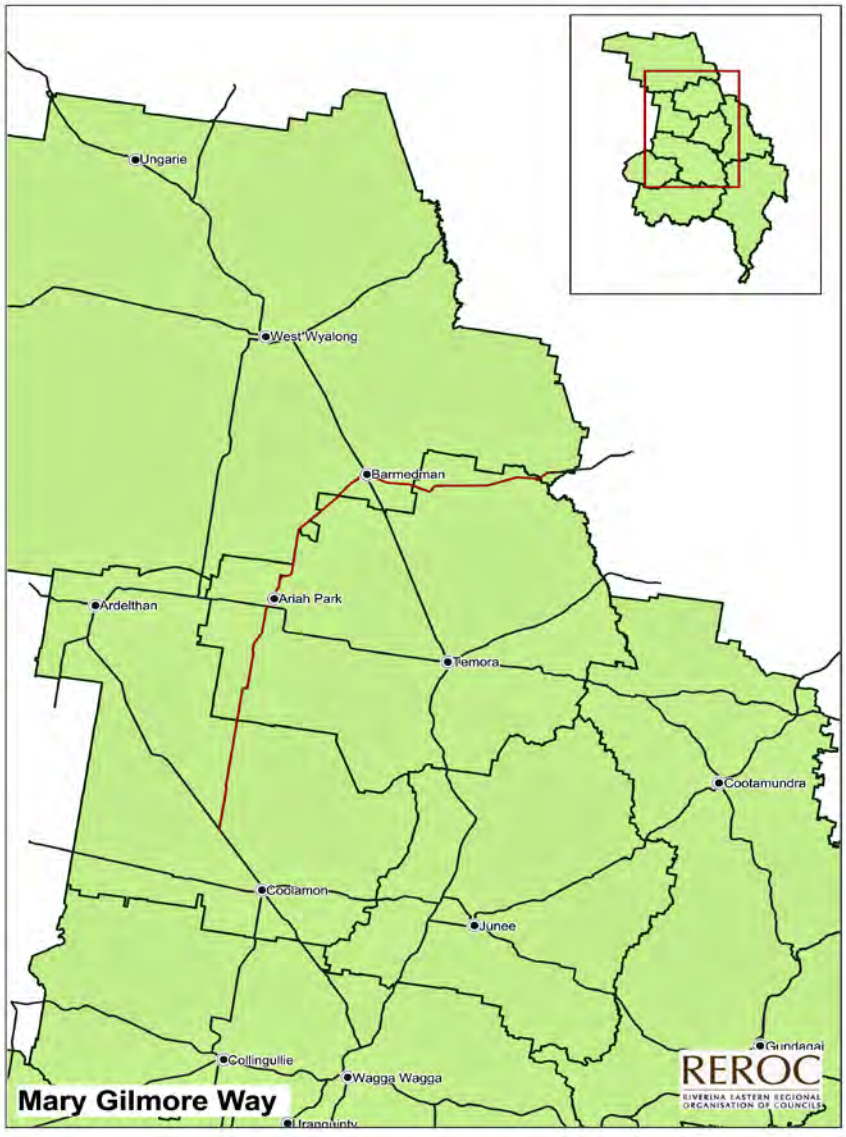
16. MARY GILMORE WAY (AADT300, MR398)

REROC LGAs: Temora, Bland, Coolamon
Major towns on route: Ariah Park, Barmedman
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route is normally used for standard heavy vehicle traffic. It is also an alternative route for HML vehicles leaving the Newell Highway to go to West Wyalong or to access the Burley Griffin Way. A constraint previously identified in relation to an Broken Dam Bridge have been addressed.

CONSTRAINT IDENTIFICATION:

No constraints identified.



17. BOOMERANG WAY (COLLINGULLIE TO JERILDERIE, MR59)

REROC LGAs: Wagga Wagga, Lockhart, Federation
Major towns on route: Collingullie, Lockhart, Urana, Jerilderie
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road is 142kms long, running from Collingullie to Jerilderie, where it meets the Newell Highway. The road provides connectivity between the eastern Riverina and central Victoria.

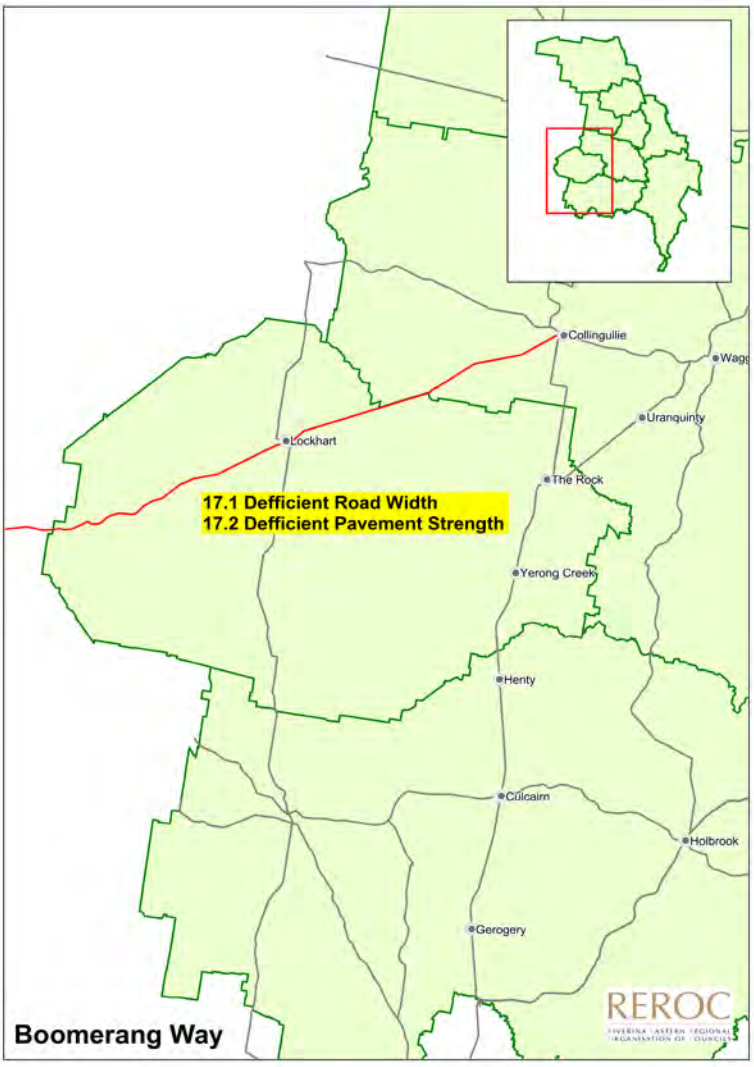
Boomerang Way is deficient in pavement width and strength

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

17.1 *Deficient Road Width* – the route is too narrow for HML/large vehicles

17.2 *Pavement Strength is Deficient* – pavement strength does not meet the needs of CML/large vehicles.



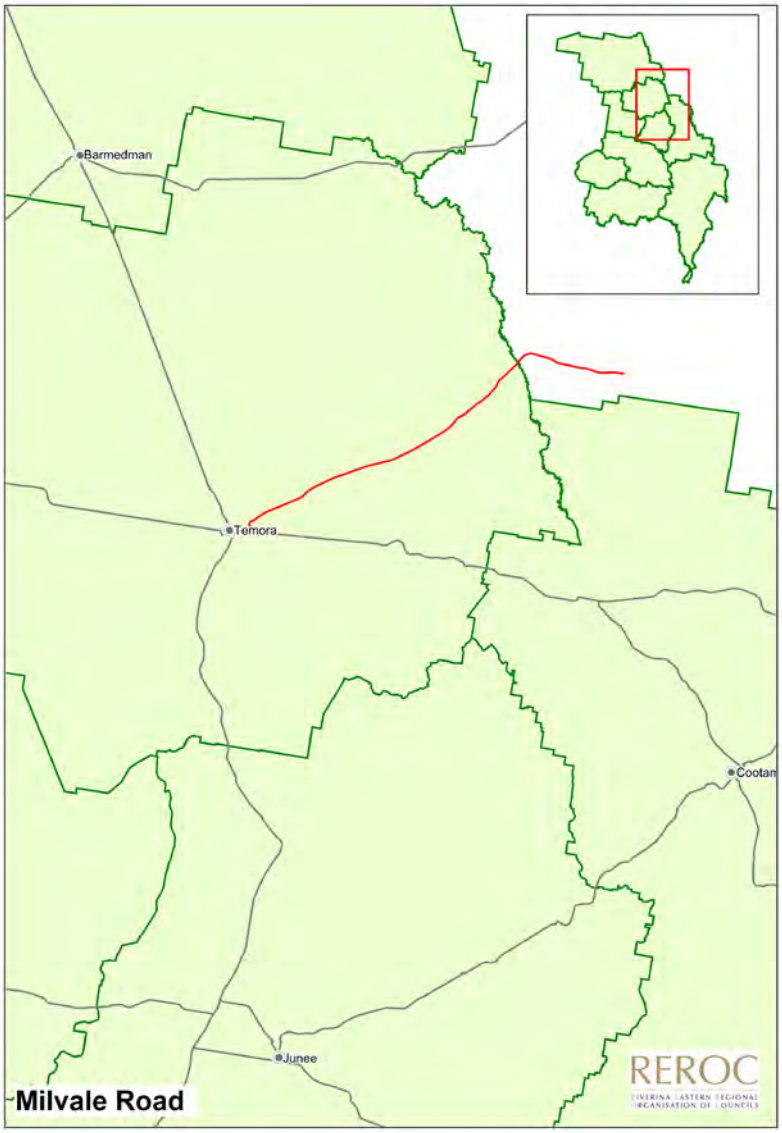
18. MILVALE ROAD (MR241)

REROC LGAs: Temora
Major towns on route: Temora, Young
Major Industries Serviced: General Freight, Tourism

This road is the major access between Temora and Young. The major issue for the route was the Grogan Bridge on the boundary of Temora and Young Shires. However a $1.5million upgrade of the bridge was completed and opened in March 2015 which has resolved the problem.

CONSTRAINT IDENTIFICATION:

There are no constraints identified on this route.



19. COOTAMUNDRA TO STOCKINBINGAL ROAD (MR235)

REROC LGAs: Cootamundra-Gundagai
Major towns on route: Cootamundra
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road takes heavy vehicles from the Coolac-Cootamundra Road (MR87) through to join the Burley Griffin Way.

It is anticipated that the Road is likely to experience higher heavy vehicle traffic flows as a result of the opening of the Hume Highway bypass at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to use the Hume, turnoff at Coolac onto MR87 to Cootamundra, then take MR235 and the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell Highway.

The pavement and alignment of the Road may not be suitable or meet the demands of the anticipated increased traffic movements.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

19.1 Bridge not Assessed – the bridge at Nioka is not assessed for HML vehicles.

20. HOLBROOK – WAGGA WAGGA ROAD (HOLBROOK ROAD, MR211)

REROC LGAs: Wagga Wagga, Greater Hume
Major towns on route: Wagga Wagga, Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This road is the major link between Wagga Wagga and Holbrook. It is also an alternative access route from Wagga Wagga to the Hume Highway for traffic travelling from the eastern Riverina to Melbourne. In addition the route can provide a time advantage for traffic that is travelling between Melbourne and Brisbane. Time can be saved by using the Hume Highway from Melbourne to Holbrook and then using this route, the Olympic Way and then Goldfields Way to Wyalong as opposed to using the Newell Hwy, which is mainly single lane, from Seymour through to Narrandera and then to Wyalong.

There are a number of risks which have resulted in restrictions being imposed on its use by B-doubles.

CONSTRAINT IDENTIFICATION:

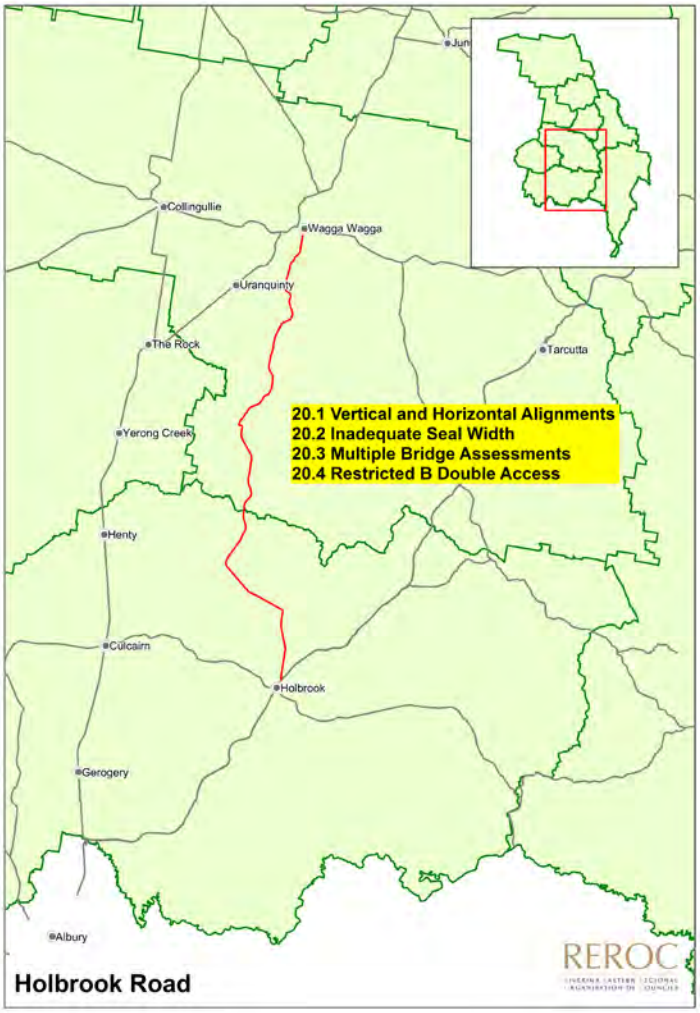
The following are identified as risks to the successful transport of freight from and through the region.

20.1 *Vertical and Horizontal Alignment* – there is poor alignment in a number of locations. This is because the road follows the historic route which evolved from the period of first settlement in the Region.

20.2 *Sealed width* – some parts of the road have inadequate width for large vehicles. The seal width in Wagga Wagga LGA is 6.9 to 7.2 metres with unsealed shoulders of 0.5 to 1.5 metres. Sealed width is also inadequate in Greater Hume Shire.

20.3 *Multiple Bridge Assessments Required* – there are multiple bridges along the route that have not been assessed as suitable for use by HML vehicles.

20.4 *Restricted B Double Access* – in the Wagga Wagga LGA section has restricted access for B doubles due to poor horizontal and vertical alignment and anrrow seal width.



21. COOLAC TO COOTAMUNDRA (MR87), MUTTAMA ROAD

REROC LGAs: Cootamundra-Gundagai
Major towns on route: Cootamundra
Major Industries Serviced: Forestry/Timber, General Agriculture, Grain

It is anticipated that the Road will experience higher heavy vehicle traffic flows following the opening of the Hume Highway bypass at Holbrook. The reason this is expected is because it may be quicker for heavy vehicles to use the Hume Highway, turnoff at Coolac, then take MR 235 and the Burley Griffin Way to link up to the Newell Highway, rather than travel the length of the Newell Highway.

Cootamundra Council has recently received an application from the NHVR for A Double access. The application was made because of restrictions on Hume Highway at Sheahan's Bridge at Gundagai. The road is not suitable for A Doubles and consequently the application was refused however it indicates a trend in relation to the use of HML vehicles.

The Road is also seeing increased use by logging trucks taking raw product from the Bathurst/ Oberon region to Visy Pulp and Paper at Tumut.

Cullinga Causeway in Cootamundra Shire requires an upgrade to reduce incidents of

The Cullinga Creek crossing approximately 15 km from Cootamundra the crossing is a low level causeway that floods and causes the road to be closed for extended periods. Numerous incidents and a fatality some 6 years ago prompted Council to install a flood warning device on the crossing which consisted of a water level monitor and solar powered flashing lights on approach signage to warn motorists of the water over the road. Council will be endeavouring over time to replace the causeway with box culverts or alternatively a bridge structure.

The intersection geometry at Cowcumbla Street requires an upgrade

The intersection geometry at Cowcumbla Street requires an upgrade as well as needing pavement strengthening and widening. The causeway on Muttama Creek requires upgrade to reduce road flooding and freight diversion.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

21.1 *HML Route Approval* – has been granted within the former Cootamundra Shire boundary but not for the rest of the route.

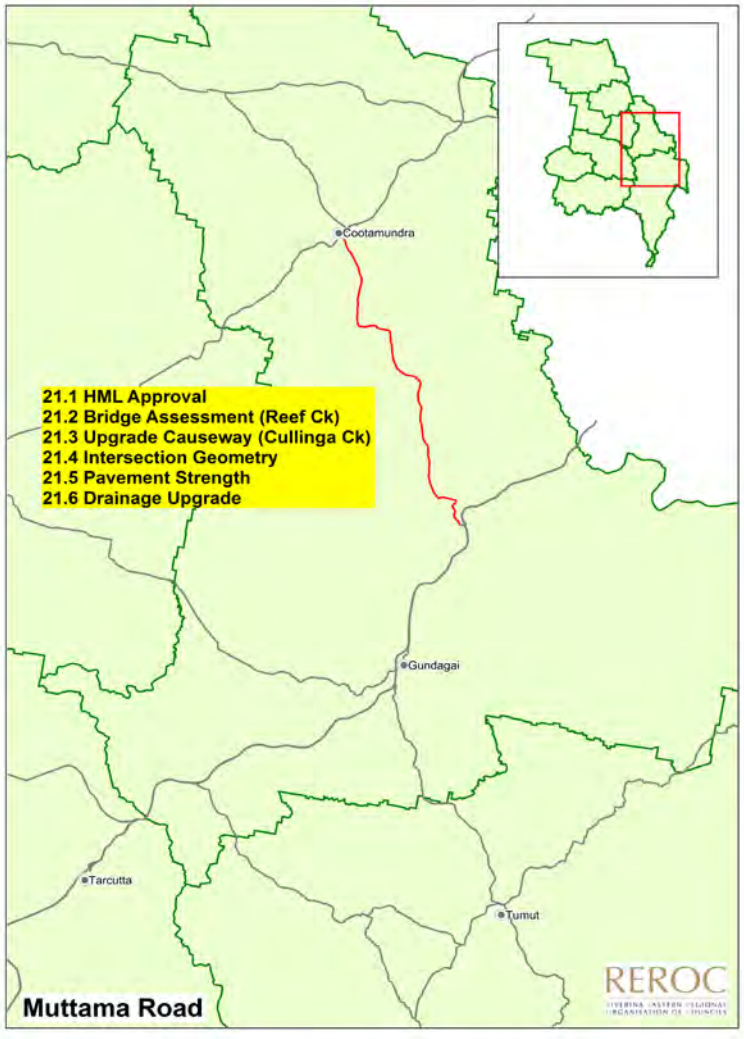
21.2 *Reef Creek Bridge* – requires assessment for HML usage.

21.3 *Cullinga Creek Causeway in Cootamundra Shire* - requires upgrading to reduce the danger and inconvenience of flooding.

21.4 *Intersection Geometry* – at the intersection with Cowcumbla Street requires a realignment and turning lanes.

21.5 *Pavement Strength* - Cowcumbla Street requires pavement strengthening and widening

21.6 *Drainage Upgrade* – is required for Muttama Creek to reduce flooding and freight diversion.



22. COOLAMON TO THE ROCK (MR543)

REROC LGAs: Coolamon, Wagga Wagga, Lockhart
Major towns on route: Coolamon, Collingullie, The Rock
Major Industries Serviced: General Agriculture, Grain

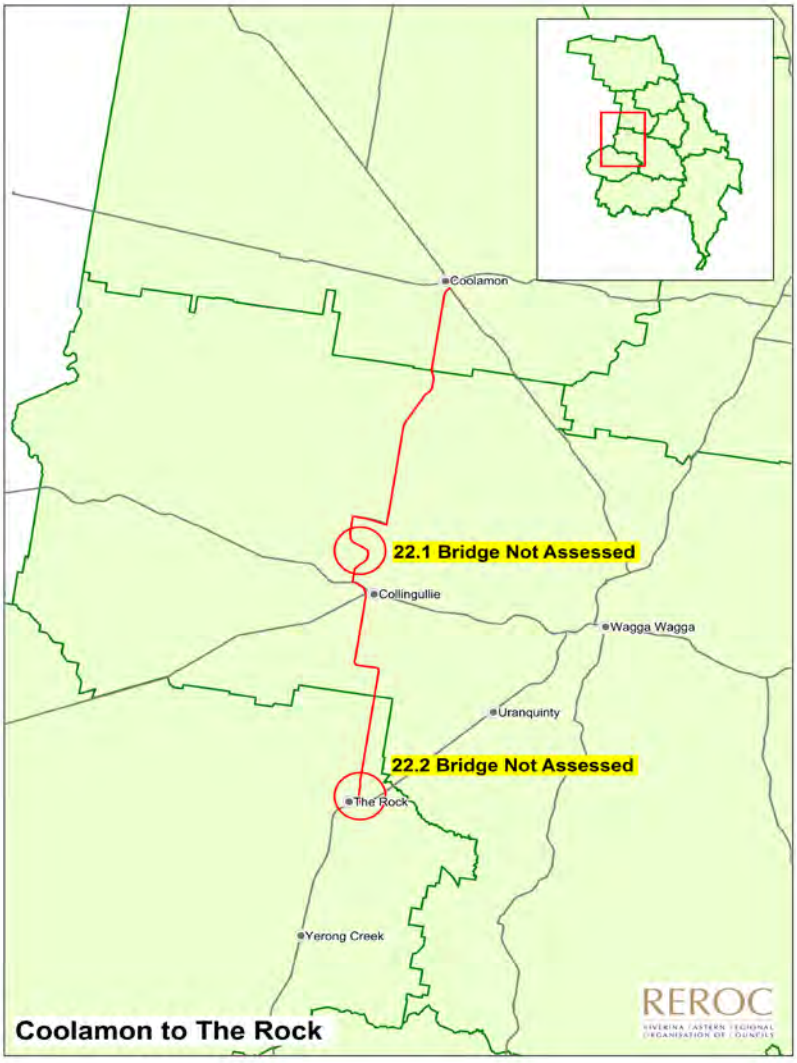
This route is primarily used for general agriculture traffic. The route is also an approved B double route in the event of an emergency, however there is a bridge on the route that has not been assessed as suitable for B Double usage.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

22.1 *Mundowy Bridge not Assessed* – the bridge which spans the Murrumbidgee River is not assessed or approved for B Double access.

22.2 *Ford Street Bridge not Assessed* – the Bridge spans Burkes Creek and is not assessed or approved for HML.



23. TOOMA ROAD (MR628)

REROC LGAs: Snowy Valleys
Major towns on route: Tumbarumba, Tooma
Major Industries Serviced: Forestry/Timber, Livestock, Tourism

Approximately 80 kms long, this road is used for forestry, livestock and for tourism. The southern end of the road is dominated by beef cattle and dairy enterprises.

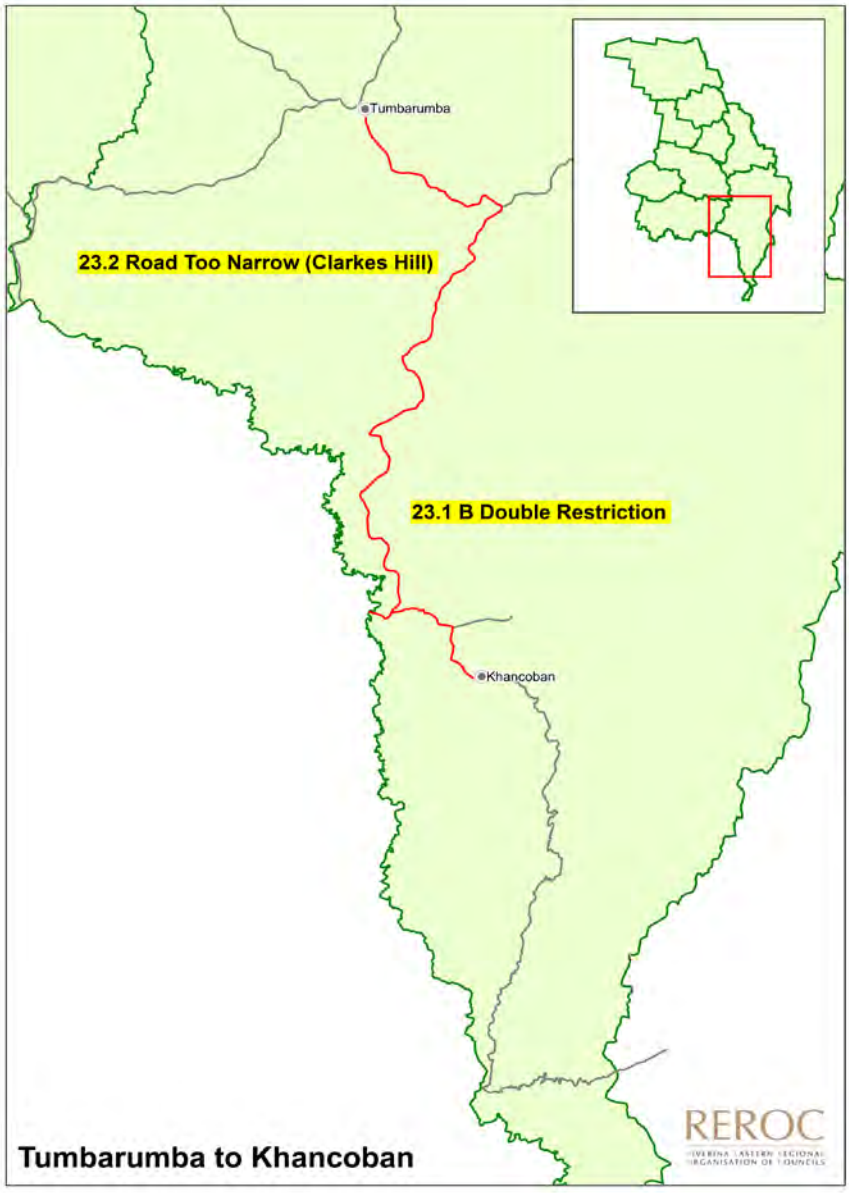
The road width is deficient at Clarke's Hill, the road is too narrow at this point, any vehicles that meet a B-Double on this section are forced to the edge of the seal and sometimes onto the road shoulder. This practice is resulting in further deterioration of the Road.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

23.1 *B Double Restriction* – the B Double route stops approximately 50 kms south of the Maragle Rd turnoff to Khancoban.

23.2 *Road too Narrow at Clarke's Hill* – vehicles that meet a B-Double on this section are forced to the edge of the seal or onto the road verge. The Road needs to be widened at this point.



24. JINGELLIC ROAD (MR331)

REROC LGAs: Greater Hume, Snowy Valleys
Major towns on route: Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain, Forestry/Timber

This road is the major link between Holbrook and Jingellic, however the Road has sections that have inadequate seal width and pavement strength. Four bridges at Wantagong also require widening to improve safety and have not been assessed for HML use.

In 2016 the steep and narrow section of the Road knowns "Yarara Gap" was reconstructed allowing full access to B-Doubles across its entire length.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

24.1 *Vertical and Horizontal Alignment* – Has poor alignment in a number of locations.

24.2 *Road width* – Some parts of the road have inadequate width for large vehicles.

25. CULCAIRN - HOLBROOK ROAD (MR331)

REROC LGAs: Greater Hume
Major towns on route: Culcairn, Holbrook
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain,

This road runs east to west and is the major link between Holbrook and Culcairn and between the Hume and Olympic Highways. It is also used as a detour when the Olympic and Hume are closed during emergencies.

In 2010 the bridge over the Billabong Creek on the route was replaced and the approaches widened which addressed significant problems that HML vehicles were encountering at that location. However about 5 kilometres of road between Morven and Holbrook is narrow, has bends and is hilly making it unsuitable for HML traffic. This section of the road forms part of an RMS designated detour. Shoulders need to be widened by at least 1.5 metres and road reconstructed to improve pavement strength to better accommodate traffic, including HML.

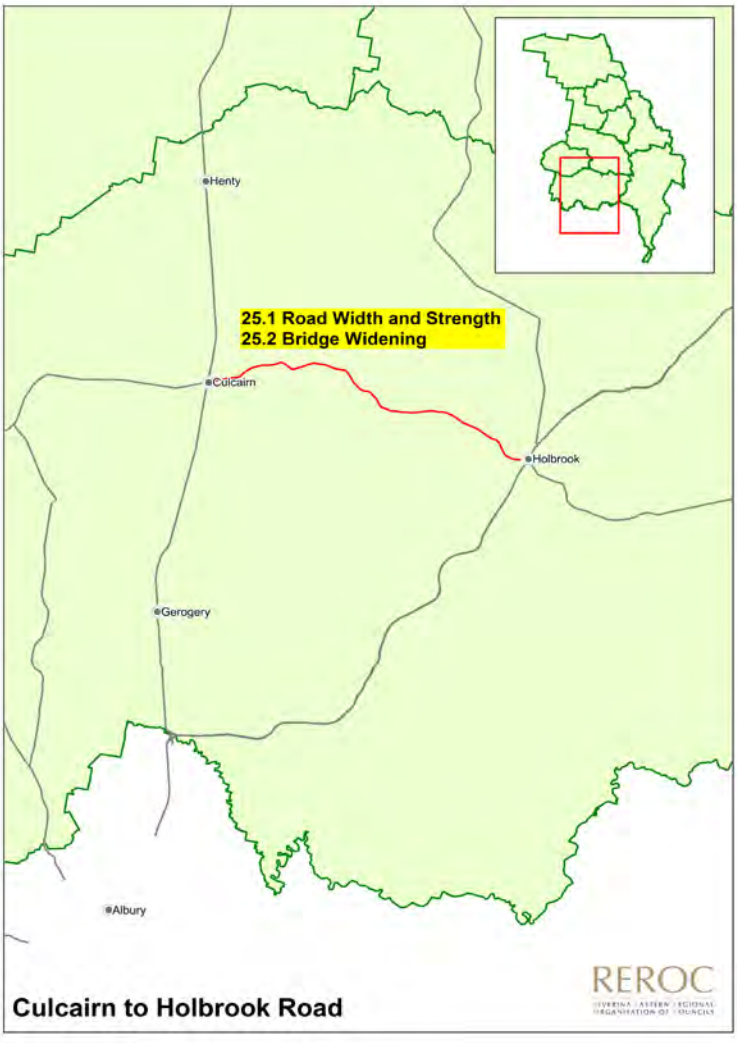
The bridge of Willow Bend Creek is also inadequate in width for heavy vehicles.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

25.1 *Road width and Strength* – About 5 kilometres of road between Morven and Holbrook requires widening by 1.5 metres and pavement strengthening.

25.2 *Bridge widening* - The Willow Bend Creek Bridge requires widening to improve safety.



26. FEDERATION WAY (RR131)

REROC LGAs: Federation
Major NSW towns on route: Corowa, Urana
Major Industries Serviced: General interstate freight

Federation Way links the Hume Highway at Wangaratta in Victoria to the Newell Highway at Morundah. Since the construction of Federation Bridge at Corowa, traffic volumes continue to increase, particularly the heavy vehicle component. Traffic counts taken in 2012 indicate an AADT of 264, with 39% heavy vehicles. The road is used as a link for through traffic as the time difference between Seymour and Narrandera is negligible (less than 15 minutes) and avoids some monitoring through the Safety Cam system.

The road is flood prone during major rain events, which impacts on pavement condition under increased traffic volumes.

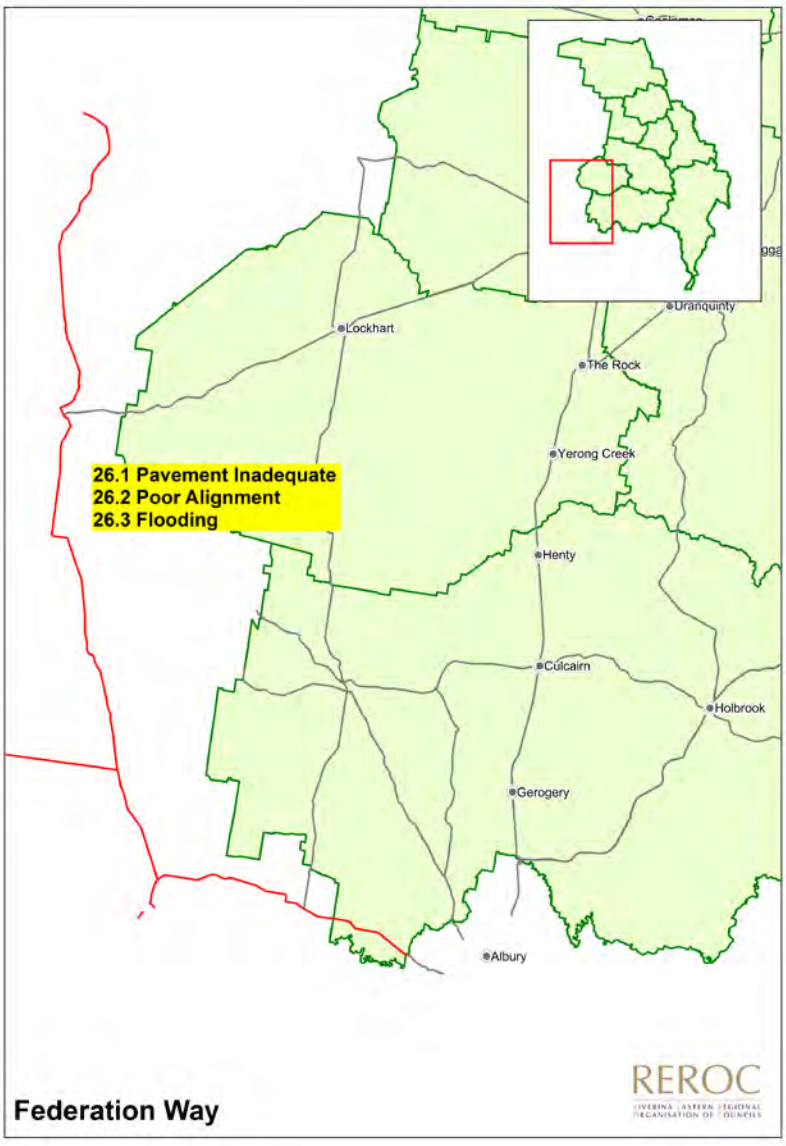
CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

26.1 Pavement Inadequate – road pavement width and strength is deficient and does not meet requirements for heavy vehicle traffic.

26.2 Poor Alignment - there is poor vertical and horizontal alignment in a number of locations

26.3 Flooding – road is subject to flooding and closure during prolonged wet weather



27. KYWONG – HOWLONG ROAD (MR370)

REROC LGAs: Greater Hume
Major towns on route: Brocklesby
Major Industries Serviced: Livestock, Grain, Tourism

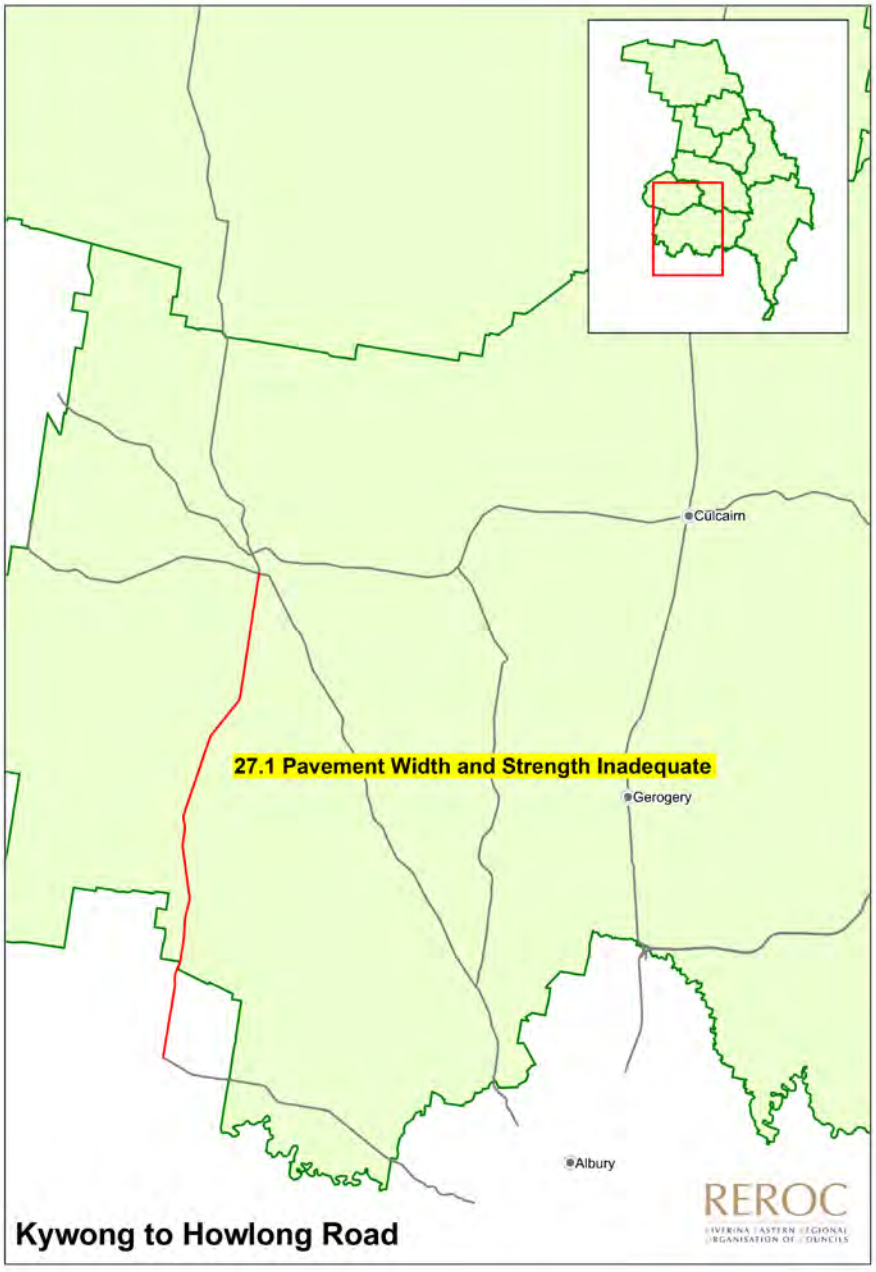
This road is used as an alternative route between the Hume and Newell Highways, this section of the road is located between Howlong and Walbundrie.

Inadequate pavement width and strength restricts its use and causes safety issues.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

27.1 *Pavement width and strength* – are inadequate to meet the demands of heavy vehicles for approximately 30kms in length within Greater Hume Shire.



28. BROADLEAF PARK ROAD, TUMBARUMBA SHIRE (RR7602)

Major Industries Serviced: Forestry, Timber

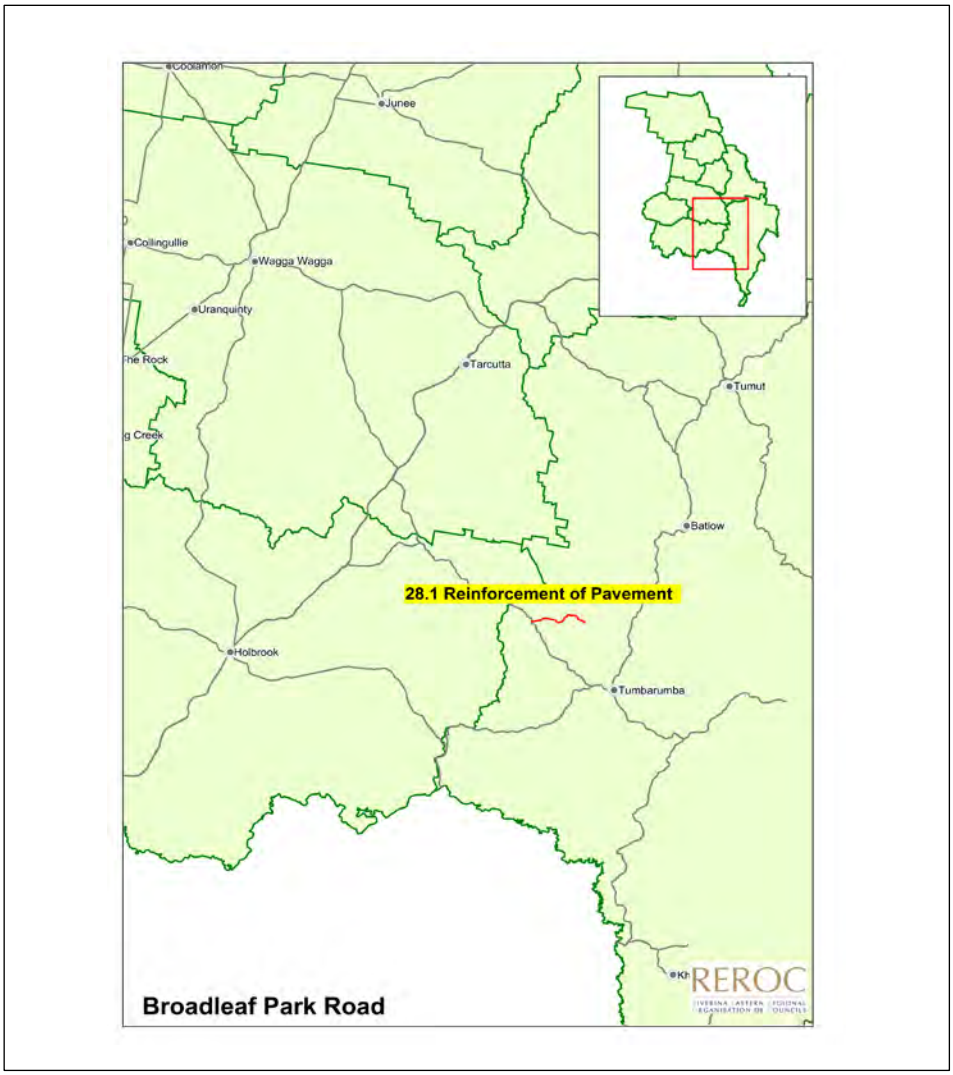
This Road has been identified by the South West Softwoods Working Group Transport Plan as a priority road for the industry. The Road provides a link between Tumbarumba Road (MR284) and the Greenhills Forest and the State Forest managed section known as Wondalga Road. The Road is a strategic link between the forests in and to the north of Tumbarumba to local timber processing industries and also the pulp mills in Albury.

The section of the Road identified for remediation is an area of curves and step grades which does not meet the weight and frequency demands of loaded log traffic.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

28.1 Reinforcement of Pavement – this is particularly required in the outside loaded wheel path in an area where persistent pavement failures occur on curves and steep gradients.



LOCAL ROADS

29. ARDLETHAN TOWNSHIP, COOLAMON SHIRE

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

The closure of the Talimba branch line has resulted in the desire for road trains to transport grain to the Ardlethan silos. Intersection geometry within the township is not currently suitable for road trains or HML vehicles, however a recent grant from Fixing Country Roads will address the problem and it is anticipated that works will be completed by May 2018.

Ardlethan also provides access to the Burley Griffin Way for B Doubles.

CONSTRAINT IDENTIFICATION:

No constraints identified

30. COMBANING ROAD, TEMORA SHIRE AND JUNEE SHIRE

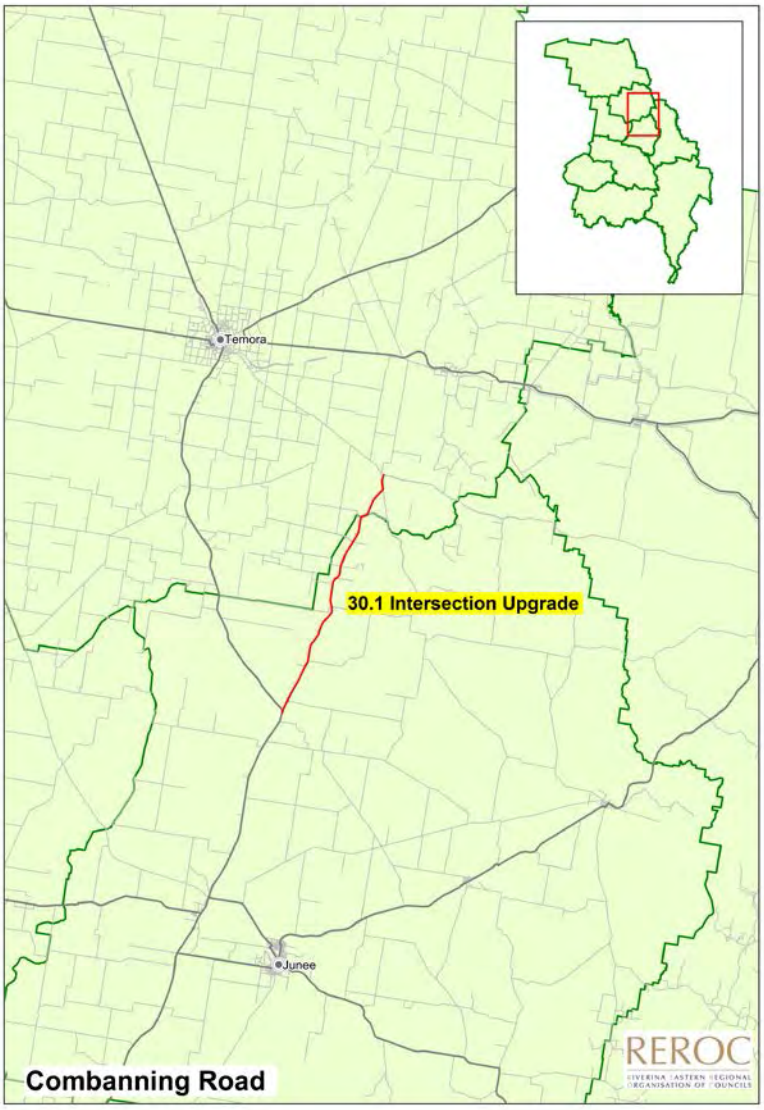
Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route runs through Temora and Junee Shires and is primarily used for general freight and agricultural use. It could also form part of the route for the transport of livestock from Tey's Jindalee Feedlot located 20kms east of Temora to Tey's Abattoir at Bomen, Wagga Wagga, however the imposition of 10 tonne limit on the road in the Junee Shire has meant that the Jindalee livestock transport can no longer use the route. This has forced the transport from Jindalee to go through the Temora township and down the Goldfields Way and then the Olympic Way to access Bomen. It is estimated that the detour adds approximately 20kms to the journey, and also negatively impacts the Temora main street.

This Road received Fixing Country Roads funding in early 2015 which will upgrade the road leading to a removal of the 10 tonne limit and opening up the route to heavy vehicle traffic.

CONSTRAINT IDENTIFICATION:

30.1 *Intersection Upgrade* - Intersection with Old Cootamundra Rd requires standardization



31. EUNONY BRIDGE ROAD – BYRNES ROAD, WAGGA WAGGA CITY

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain, Pulp and Paper

The Bridge, built in the mid-1960s, together with Byrnes Road (part of which is in Wagga Wagga City's LGA and part in Junee LGA) forms the major access route to the Bomen Industrial Area where Wagga Wagga City Council has proposed the development of an intermodal hub known as the Riverina Inland Freight and Logistics Hub (RIFLH) . This Road will provide the most direct route to RIFLH from the east of the City and therefore the Road needs to accommodate HML vehicles. It is also the route which is used to access the Livestock Marketing centre. The Centre operated by Wagga Wagga City Council is the biggest sheep selling centre in the southern hemisphere, selling over a million sheep each year.

Eunony Bridge at Wagga Wagga

The Road is also a major access route to the Qube intermodal facility at Harefield, which is currently handling all Visy Pulp and Paper's products for export.

The Bridge forms part of the Sturt Highway diversion through Wagga Wagga, most importantly providing an alternative route for high vehicles that are unable to pass under the rail over road bridge located on the corner of the Highway and Lake Albert Road at the edge of the CBD. The route carries about 4,000 vehicles per day with a 19% concentration of heavy vehicles.

The Bridge can take all configurations of GML vehicles but is not suitable for CML or HML vehicles

Eunony Bridge was assessed for use by HML vehicles. The assessment revealed deficiencies that have resulted in some urgent work being undertaken to maintain the Bridge. At the present time vehicle weights on the Bridge are restricted to general mass limits (GML) meaning that there is no high vehicle by-pass on the Sturt Highway at Wagga Wagga for vehicles that are in the CML or HML categories.

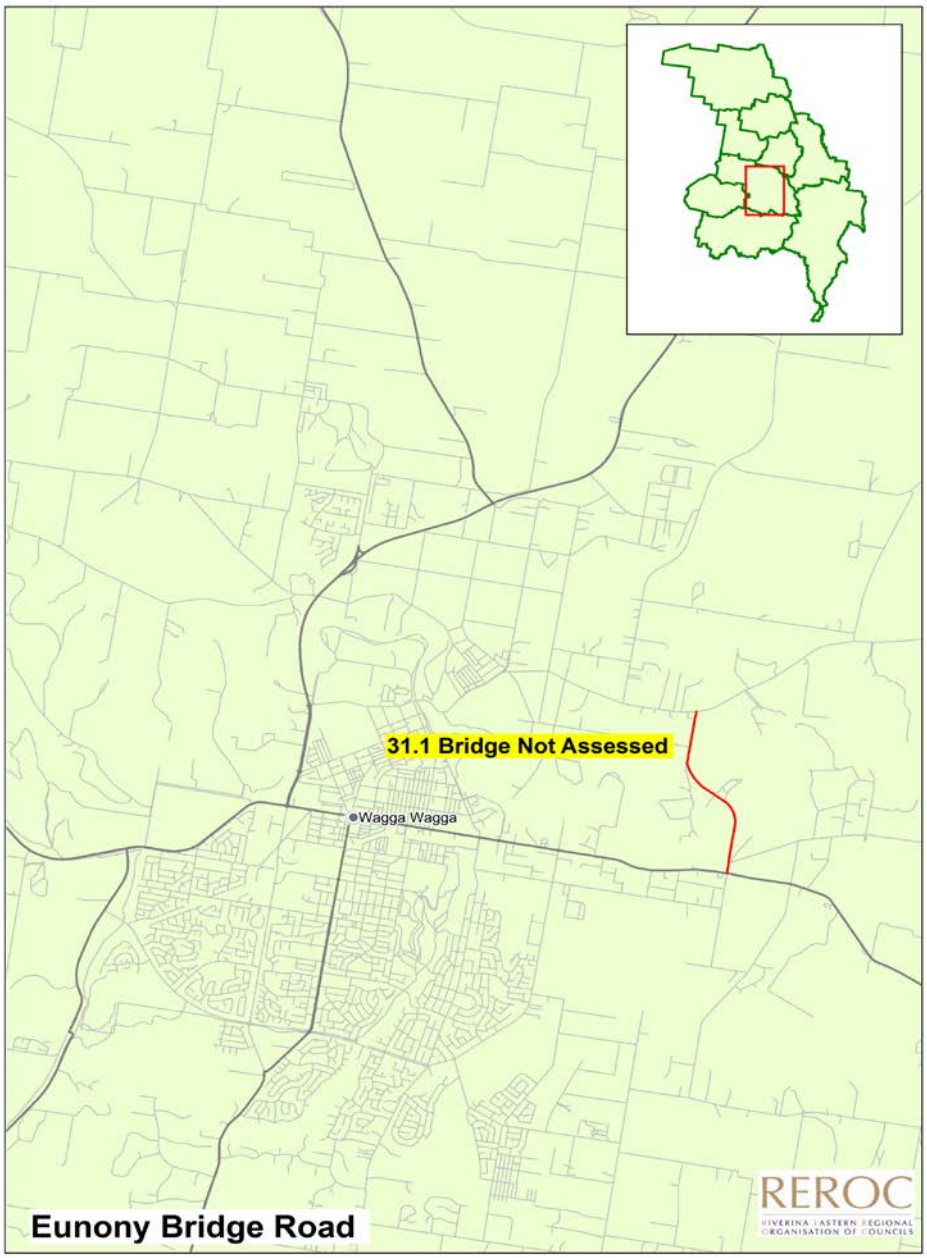
This situation has already proven to be a problem with at least one very large load having been turned around and returned to Adelaide where it was sent to Sydney by ship. Visy is exploring the opportunity to use A-Doubles on this route however until the Bridge is approved for HML this mode of transport is not an option for the Company.

Currently HML vehicles wanting to access Bomen or Harefield from the east or west of Wagga Wagga must use the Sturt Highway and then travel over the Gobbagumbalin Bridge; this is increasing transport costs for freight that originates east of the City.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

31.1 Eunony Bridge not suitable for use by CML or HML Vehicles – the bridge does not take HML vehicles this restricts access to Bomen Industrial Area the proposed RIFLH and Qube Logistics which operates at Harefield. HML vehicles must travel through Wagga Wagga on the Sturt Highway and the use the Gobbagumbalin Bridge to access Bomen.



32. HAREFIELD ROAD, JUNEE SHIRE

Major Industries Serviced: Pulp and Paper, General Freight, General Agriculture, Livestock, Grain

A problem with stacking at Qube was resolved with a major upgrade to Harefield Road diverting the road to the east which allows for stacking to occur.

Harefield Road joins Byrnes Road and is the major access route for Visy to the Qube Logistics Intermodal Centre. Transport carrying Visy products make up to 60 journeys to the site each day. A problem with stacking at the railway line was resolved in mid-2015 with $1.5 million upgrade to the intersection which resulted in the road being relocated further to the west

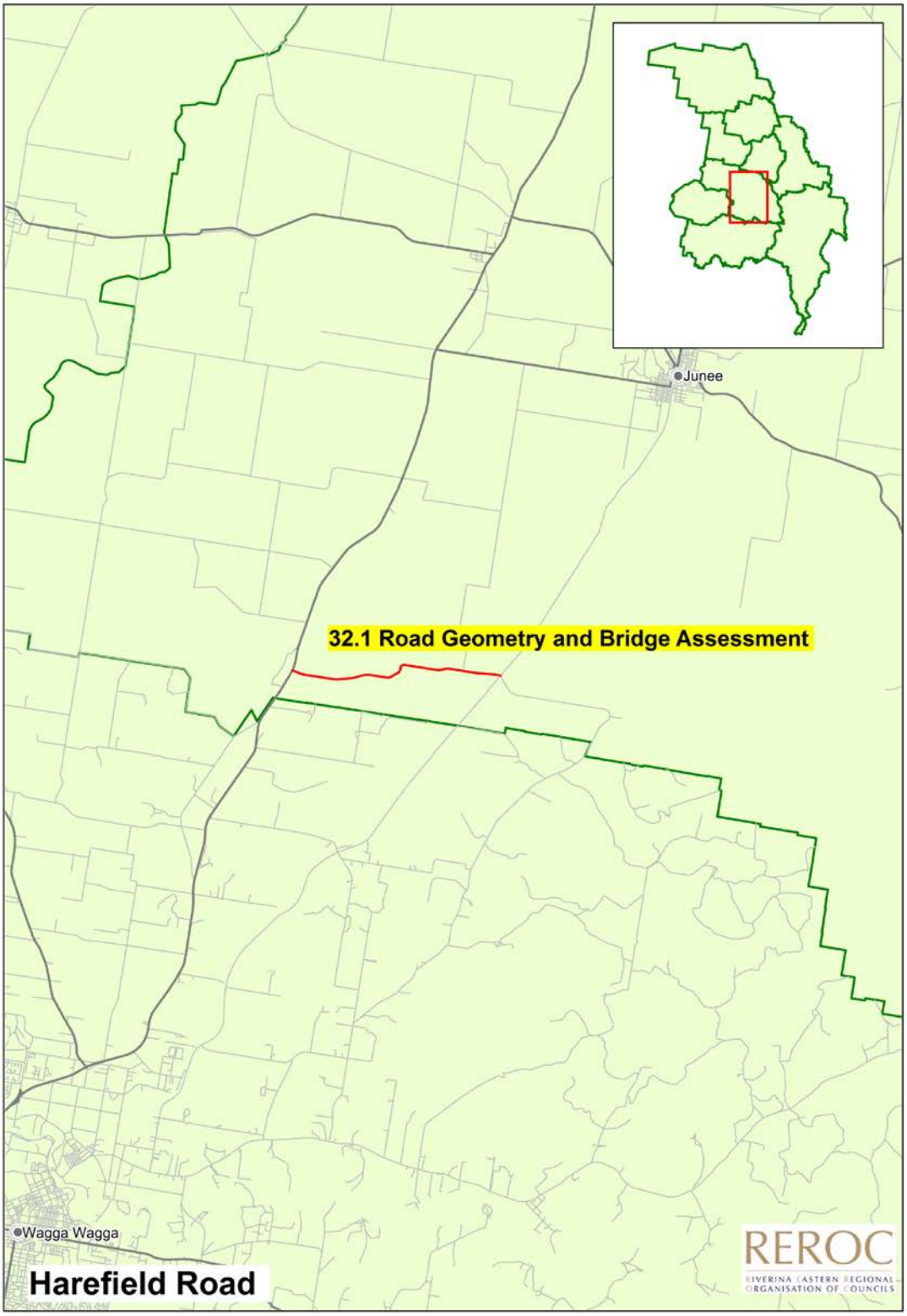
Access to Harefield Road is restricted by the Eunony Bridge, the Bridge is not suitable for HML vehicles. In addition Visy are exploring the use of A-Doubles on the route but this is not possible without an assessment of the Bridge and improvements to the road geometry and the level crossing.

CONSTRAINT IDENTIFICATION:

The following issues as risks to the successful transport of freight from and through the region:

32.1 *Road Geometry and Bridge* – the Eunony Bridge is not assessed and the road geometry does not support the use of HML.

Qube operates on the Harefield Road


Junee
32.1 Road Geometry and Bridge Assessment
Wagga Wagga
Harefield Road
REROC
RIVERINA EASTERN REGIONAL ORGANISATION OF COUNCILS

33. OLD NARRANDERA ROAD, WAGGA WAGGA CITY

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

This route provides linkage between the rural areas of Wagga, Coolamon and Narrandera LGAs, the Livestock Marketing Centre and proposed intermodal terminal at Bomen. Freight that is carried on the route is predominantly agricultural in nature.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

33.1 Bridges on the route not assessed – Bridges over several creeks along the road have not been assessed for use by HML vehicles.

34. COURABYRA ROAD, SNOWY VALLEYS COUNCIL

Major Industries Serviced: General Freight, Tourism

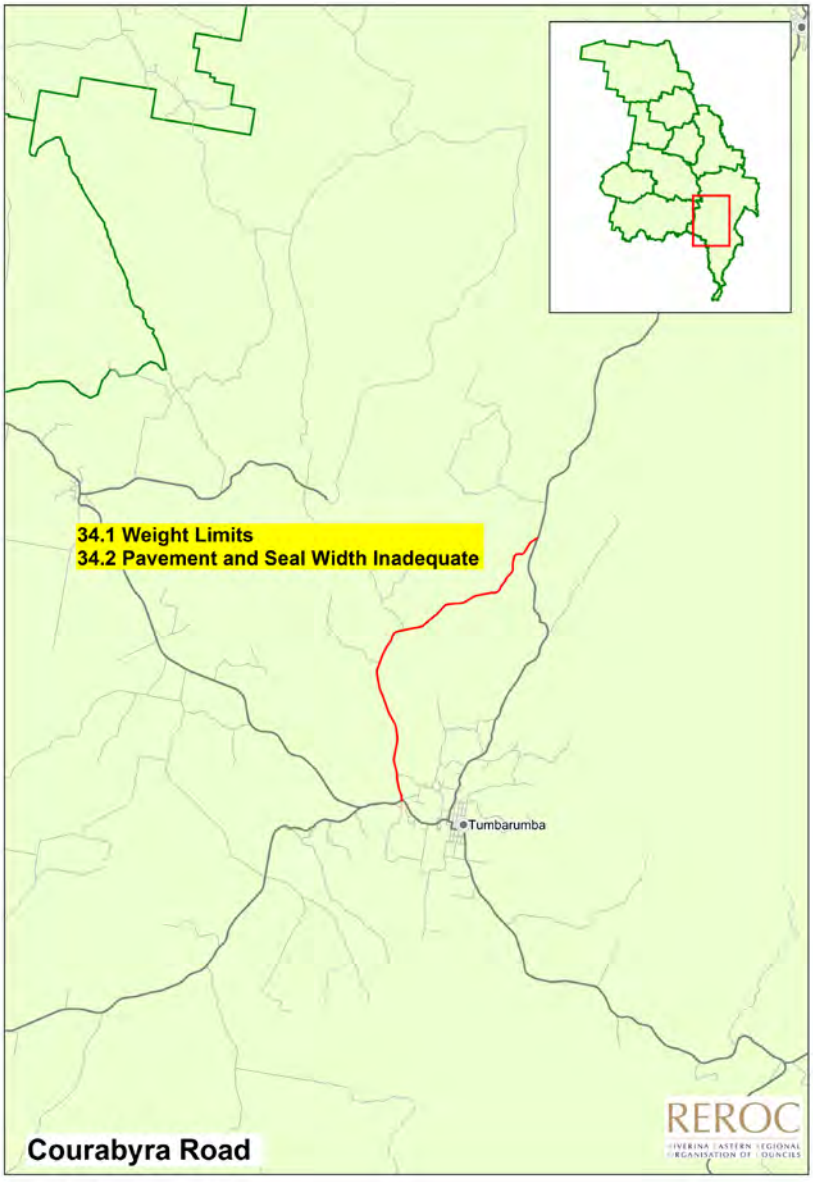
As a result of a study undertaken by the former Tumbarumba Shire which considered alternative routes to bypass Tumbarumba, the road was identified as the route most likely to be used as a bypass for the township. This South-esat Softwoods Working Group was advised of this so that it could be included in their Transport Plan.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

34.1 *Weight Limit on Courabyra Road* – there is a 15 tonne limit between Batlow Road and Taradale Road that applies to about 6 kilometres of the road, the road requires strengthening for the limit to be removed.

34.2 *Pavement width and seal width inadequate* – currently inadequate for use as a bypass option.



35. DIRNASEER ROAD/SUTTONS LANE, COOTAMUNDRA-GUNDAGAI COUNCIL

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

The Lane is the High Vehicle detour for the Olympic Way south of The Gap Bridge. The diversion adds approximately 8 kms to any trip.

While Suttons Lane is a suitable High Vehicle diversion it is not HML approved due to the Railway Bridge on the Main Southern Rail Line. The width of the bridge on the Lane also restricts traffic to single vehicle travel at all times.

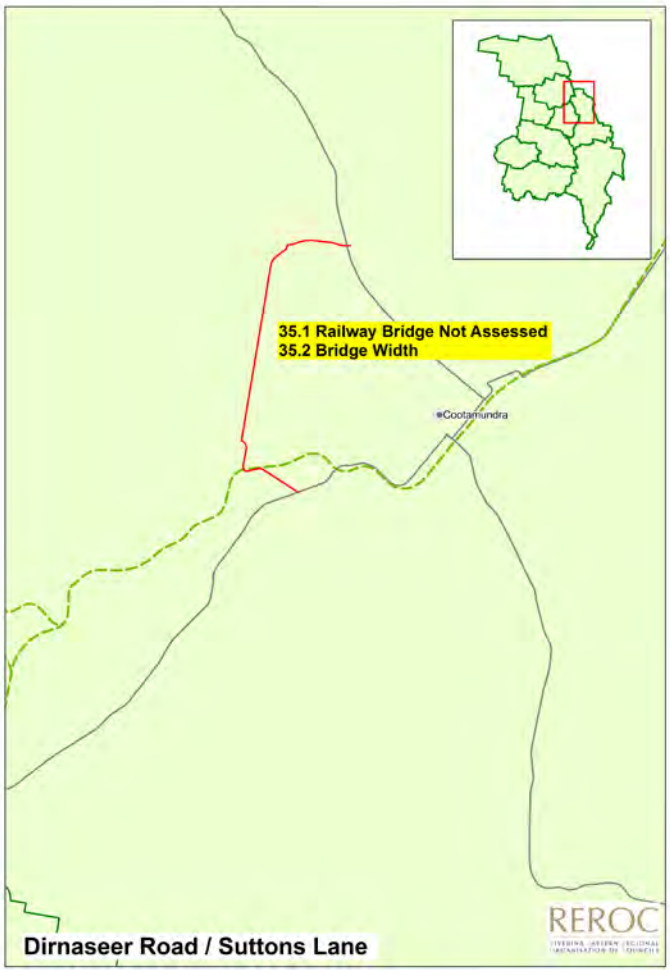
Suttons Lane is the high vehicle detour for the Gap Bridge (pictured) at Cootamundra

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

35.1 *Railway Bridge Not Assessed* – the rail bridge on Dirnaseer Road has not been assessed for HML

35.2 *Bridge Width* – the width of the Bridge restricts traffic to single vehicle travel.



36. COPPABELLA RD, GREATER HUME SHIRE

Major Industries Serviced: Forestry, Timber

The road is a critical link for timber industry from plantations to Tumbarumba Road approximately 16 km in length. The South-west Softwoods Working Group has identified the Road as a priority for the industry.

A successful joint funding agreement recently between State Government, Council and the timber industry for $3.5 million has allowed some upgrade of the road to occur however a further $7 million is required to bring road up to suitable standard.

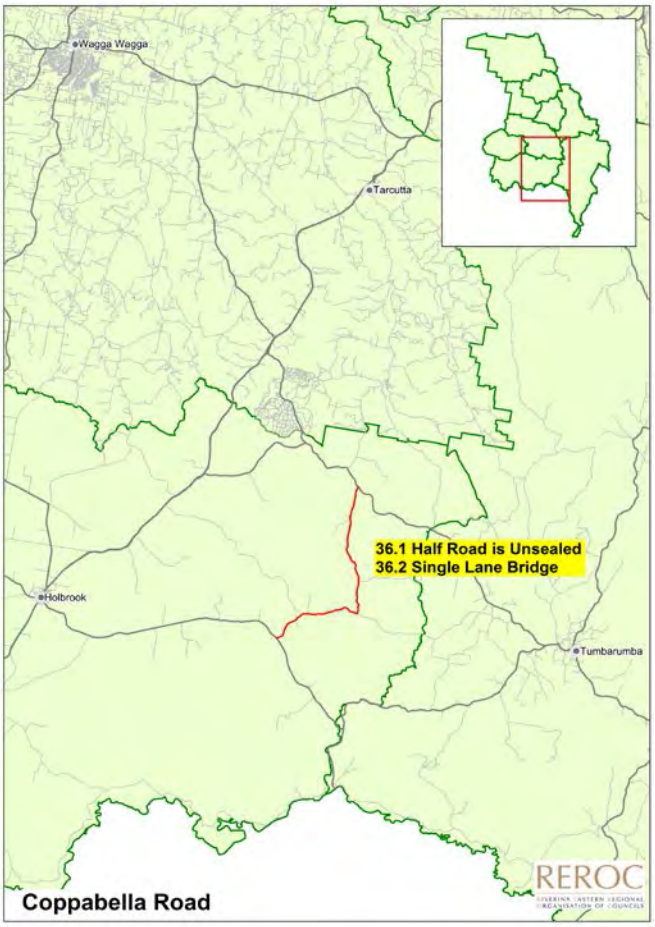
The Road is a low standard gravel road with a 4m wide pavement and a single lane bridge on a poor alignment. The Road is under heavy stress from current log movements with failures occurring on an ongoing basis. The Industry estimates that logging volumes will peak at 400,000 tonnes per year in the next 10 years and the Road is currently unsealed for more than half its length.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

36.1 *Half the Road is Unsealed* – it also has poor pavement, and vertical and horizontal alignment.

36.2 *Single Lane Bridge* – is insufficient to meet the growing demands of industry.



37. GRUBBEN ROAD, GREATER HUME AND LOCKHART SHIRES

Major Industries Serviced: Grain, Livestock

The road links the Olympic Highway and the Grubben Road over the Main Southern Rail Line at Henty.

This link road, although only 60 kilometres long, is the main northern access to the Graincrop Grain Storage facility at Henty. The Road was used extensively by B-Doubles until recently when a length limit was imposed due to a near miss incident with the XPT. The Lockhart Shire portion of the road which is 12 kms in length is unsealed and has narrow culverts.

An investigation following the near miss incident determined that the link road was not B-Double graded and did not have sufficient stacking space for long vehicles, leaving Council with no option but to length limit the road. As a result all long vehicles must now travel through the Henty CBD to access to storage facility causing safety and amenity issues.

CONSTRAINT IDENTIFICATION:

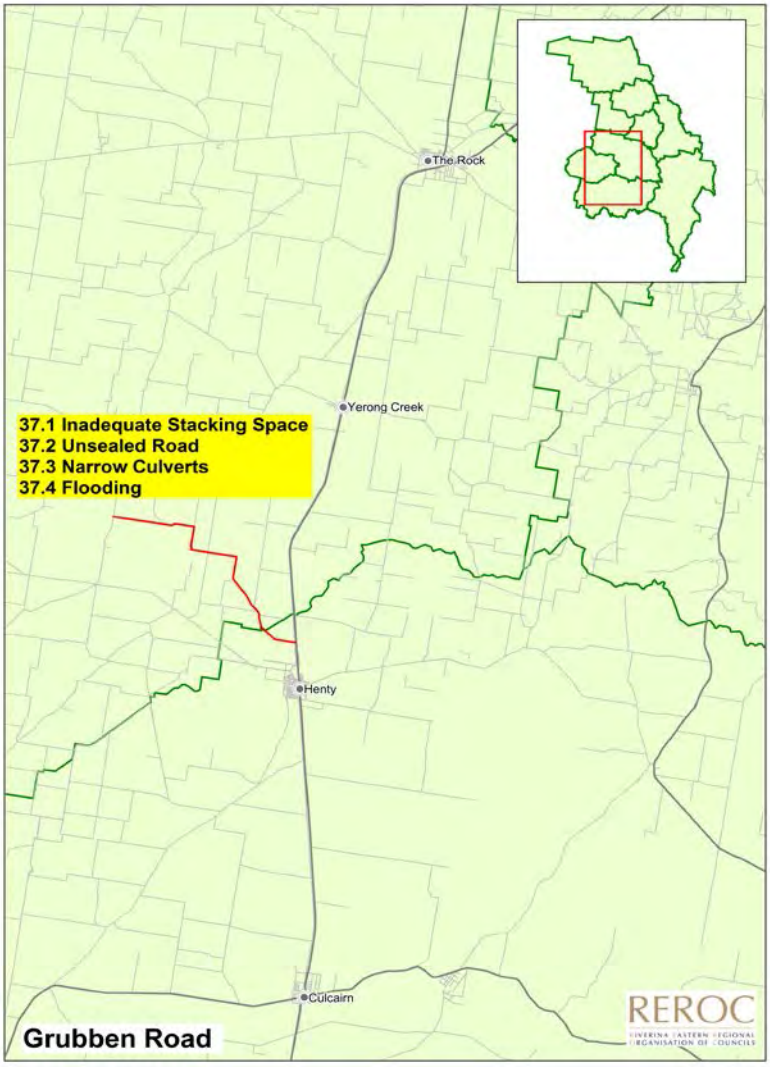
The following are identified as risks to the successful transport of freight from and through the region.

37.1 *Inadequate stacking space/accommodation for long vehicles waiting at the rail head to access the storage facility* - requires that B-Doubles must travel through the Henty CBD, which adds time to the journey and impacts on the safety and amenity of the CBD.

37.2 *Unsealed Road* – in Lockhart LGA

37.3 *Narrow Culverts* – in the Lockhart LGA

37.4 *Flooding* – road is impassable for heavy vehicles after prolonged wet weather.



38. BOMBOWLEE CREEK ROAD, SNOWY VALLEYS COUNCIL

Major Industries Serviced: Forestry

The Bombowlee Creek Road leads to Canberra and winds through mountainous country, with steep batters on one side and sharp drop offs on the other.

The South-west Softwoods Working Group estimates that the volume of logs transported on the road as 667,500 tonnes per year over the next 20 years. The Road is the only route by which resource from both public and private softwood plantations east of Tumut can be delivered to processing facilities located in Tumut and Tumbarumba.

The road has poor horizontal and vertical alignment, inadequate pavement capacity and varying and inadequate pavement width. In 2012 the road drainage at "Blue Cut" was unable to cope with a substantial rain event in March 2012; part of the road slipped away, some subsided and there was also a land slide, reducing the width of this important timber cartage road, this has since been repaired.

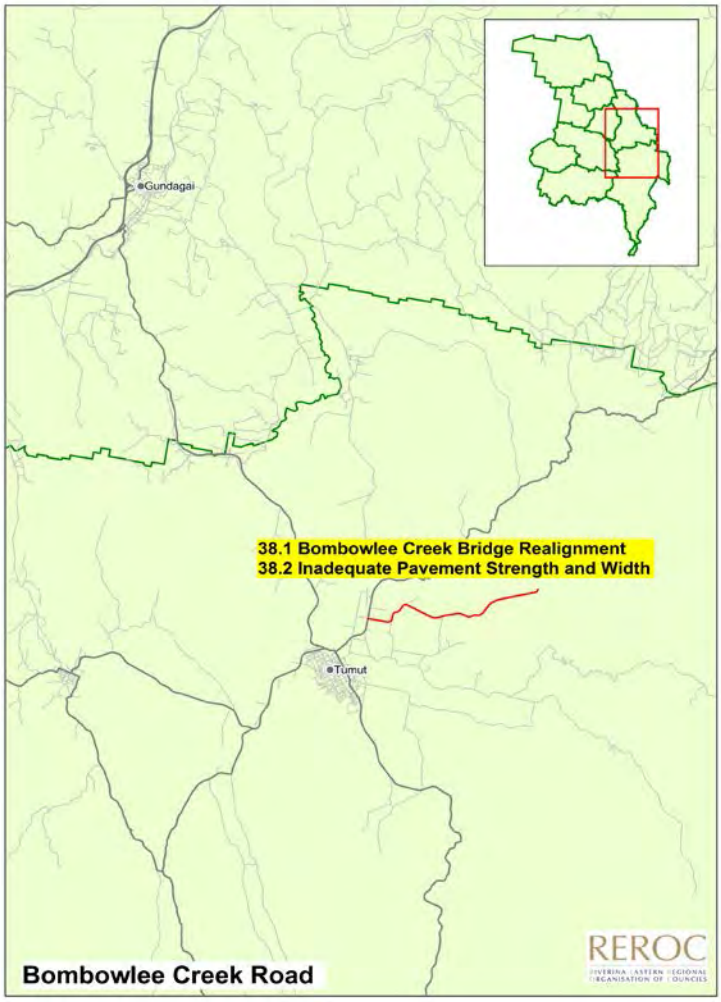
In addition the Bombowlee Creek Bridge requires improvements to lift the bridge deck level to a more consistent transition, as well as straightening of the horizontal alignment to reduce this sharp nature of the approach curvature.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

38.1 *Bombowlee Creek Bridge Realignment* – bridge located 10.4 kms from the Wee Jasper Rd requires realignment

38.2 *Inadequate pavement strength and width* – pavement requires strengthening and road requires climbing/overtaking lanes.



39. BYGOO ROAD, COOLAMON SHIRE

Major Industries Serviced: General Freight, General Agriculture, Livestock, Grain

Located north of Ardlethan, it is the access road from Talimba in Bland Shire to the Ardlethan wheat silos. The closure of the Talimba branch line has resulted in the use of road trains to transport grain to the Ardlethan grain silos. The issue is that the Bygoo Road, the last link in the journey, is approved for B Double use but not for HML or road trains although there is a blanket approval for their use in Bland Shire.

Bygoo Road Intersection at Ardlethan

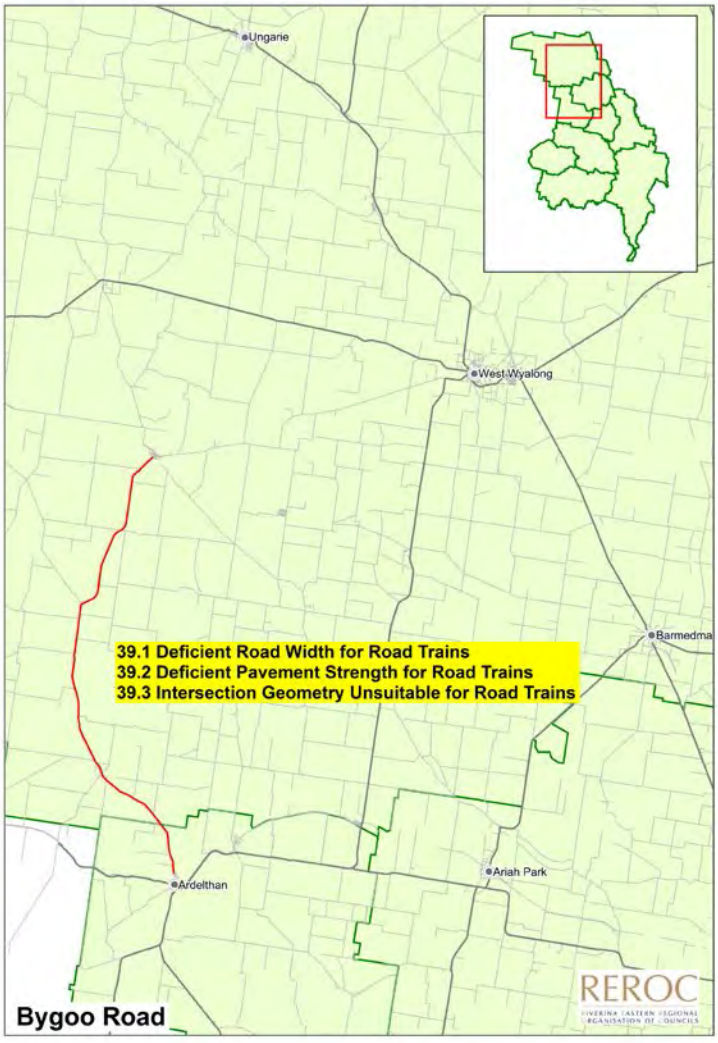
CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

39.1 *Deficient road width for Road Trains* – approximately 5 kms of the road has insufficient width to support use by road trains.

39.2 *Deficient pavement strength for Road Train and HML Use* – the road is of poor structural standard and is largely earth formed with seal.

39.3 *Intersection geometry unsuitable for road trains* – road geometry through Ardlethan is unsuitable and does not cater for road train turning circle requirements.



40. RANNOCK RD, COOLAMON SHIRE

Major Industries Serviced: Grain, Livestock, Agricultural produce

Located north/east of Coolamon, it is the access road for the Rannock area to grain silos located in Temora, Coolamon and Rannock. The Rannock area is located in the centre of general agriculture, livestock and grain production and relies on the Road as the main route to both Coolamon and Temora where major terminals and rail connectivity is achieved.

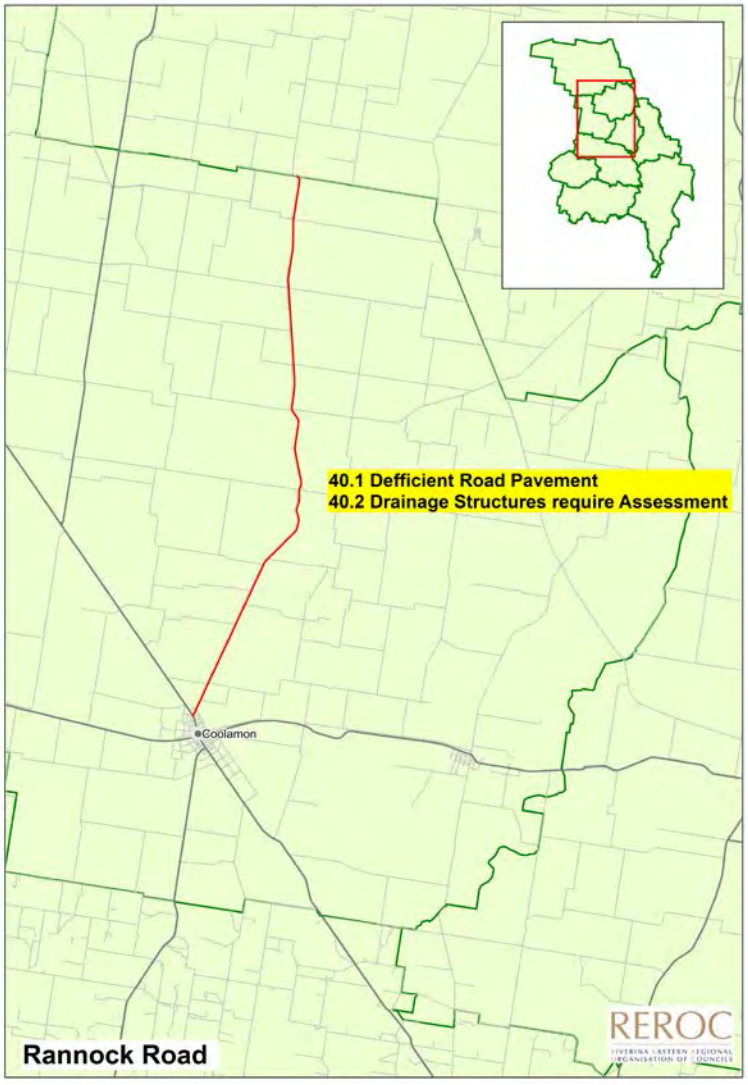
The Road does not have sufficient pavement strength for road train or HML use; it is of poor structural standard and is largely earth formed with seal. In addition the drainage structures located at Mimosa creek are of an unknown standard and require assessment to determine if they have the strength to support use by road trains and HML vehicles.

CONSTRAINT IDENTIFICATION:

The following are identified as risks to the successful transport of freight from and through the region.

40.1 *Deficient road pavement for HML* – the road has insufficient pavement strength to support use by HML vehicles and road trains.

40.2 *Drainage structures at Mimosa Creek require assessment* – the drainage structure requires assessment to determine if they are capable of supporting HML and road train usage.



41. ADJUNGBILLY ROAD, COOTAMUNDRA- GUNDAGAI SHIRE

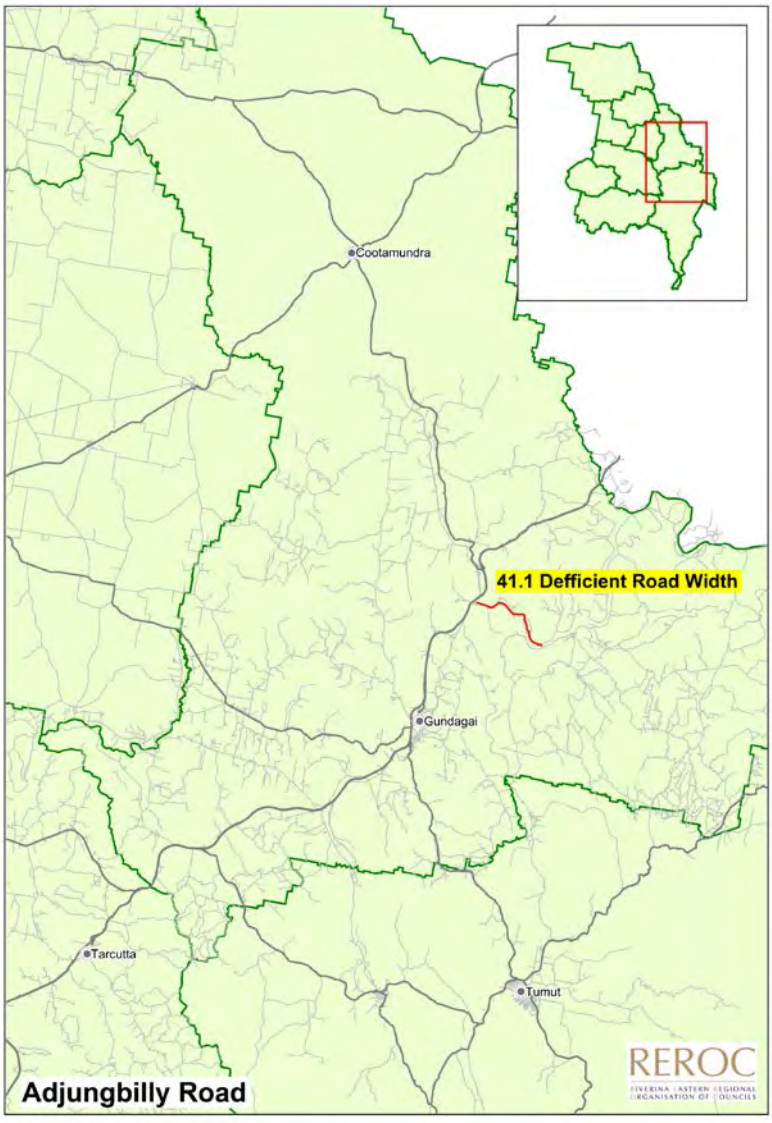
Major Industries Serviced: Grain, Timber, Agricultural produce, Quarry materials

The replacement of the Gobarralong Bridge on the Adjungbilly Road means that the bridge is again capable of taking B-Double loads, the bridge had been safety impaired since the 2012. However the almost 30km section of the road between Adjungbilly and Gobarralong is not sufficient for HML use.

CONSTRAINT IDENTIFICATION:

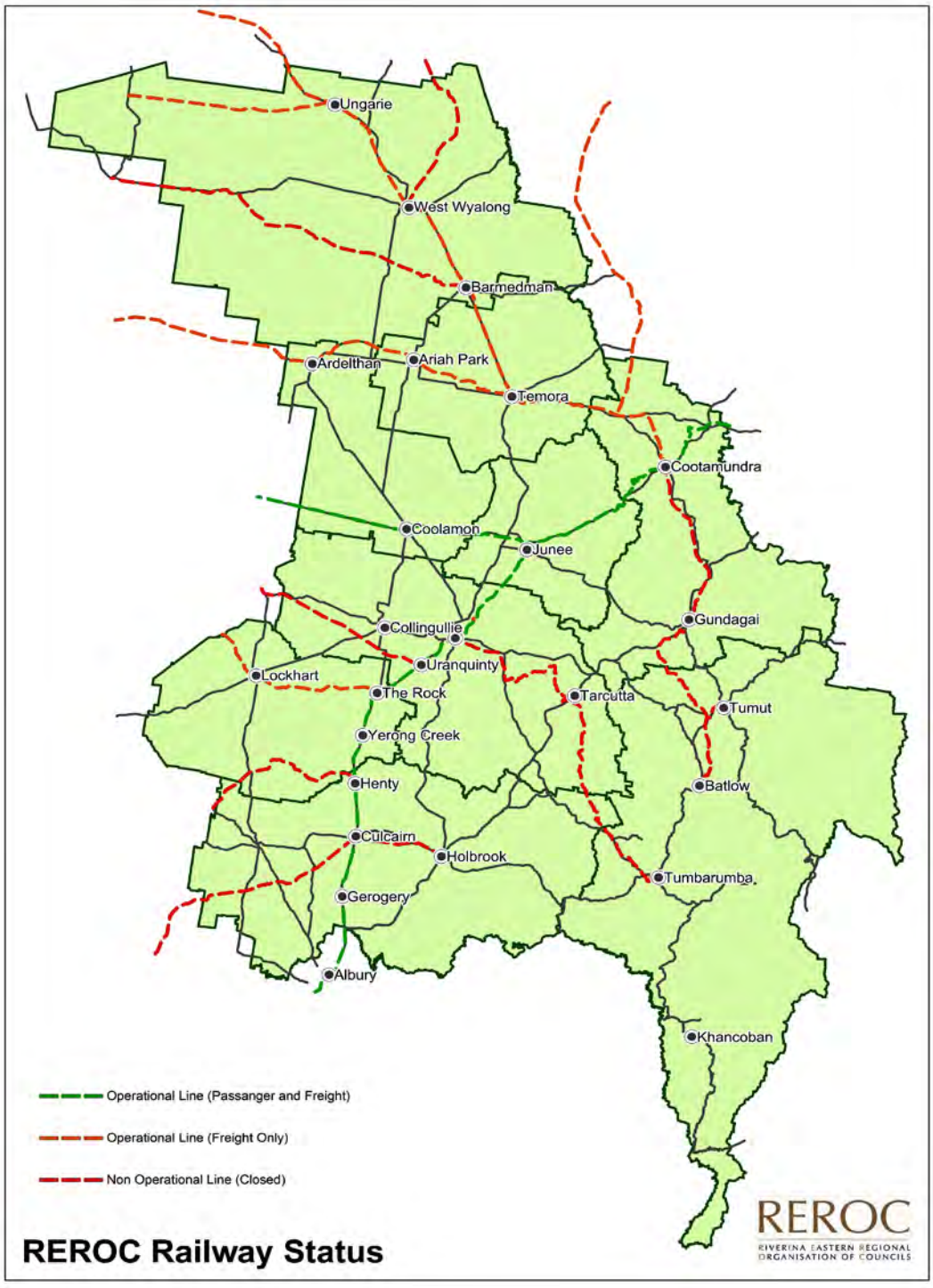
The following are identified as risks to the successful transport of freight from and through the region.

41.1 Deficient road width for HML – the road has insufficient width to support use by HML vehicles.



PART FIVE: RAIL NETWORKS IN THE EASTERN RIVERINA

The achievement of Goal Two of the Plan, the implementation of integrated transport solutions for the Region is significant to achieving efficient and effective freight outcomes. Therefore it is imperative that rail freight be factored into planning for the region. The following map shows the current operational and non-operational rail lines in the Region as well as the planned route for the Inland Rail announced by the Minister in September 2017.



The Main Southern Line runs through the REROC region.

The Main Southern Rail line dissects the region and in a hub and spoke fashion it is fed by a number of branch lines.

There is increasing freight travelling by rail to both Port of Melbourne and Port Botany. Port of Melbourne is currently the dominate player for the receipt of rail freight. The Qube Facility at Harefield and the proposed Intermodal Hubs at Wagga Wagga and the proposed establishment of a new facility at Cootamundra are likely to increase the demand for rail freight. In addition the opening of the Western Riverina Intermodal Freight Terminal at Wumbulgal in Leeton Shire in mid-2015 and the development of a second hub at Widgelli in Griffith will add to the amount of freight moving from the west to utilise the Main Southern Line.

Nevertheless, the region's rail infrastructure is under-utilised, closures of branch lines over the last fifteen years has forced an increasing number of grain trucks onto roads, many of them HML vehicles, including road trains.

These are roads that were never designed to withstand continuous use by heavy vehicles. The result has been an accelerated deterioration of the road network leading to significant inefficiencies in the carriage of freight. In addition as many of the roads that are bearing the increased usage fall within the responsibility of local government the consequence is that the cost of moving freight has been shifted from the rail network (where it could be recouped by users) to the road network where it is met by local government. REROC has consistently argued against the closure of branch lines because of the inefficiencies that are created for the freight task and the cost shift to local government.

The Productivity Commission recognised the cost of heavy vehicles using rural roads in 2006, writing "the cost of heavy trucks using many rural local roads and lightly-used arterials is likely to be well above the network average charge."[14] The Inquiry also noted that some bulk tasks on rail like grain haulage were also subsidised. The Commission also noted the external costs of road freight such as accident costs, environmental impacts, greenhouse gas emissions and congestion were also greater than rail.[15]

A Report prepared for the Productivity Commission by CRA International noted that "local roads, being constructed generally to a lower standard strength, would be more susceptible than arterial roads to usage-related damage."[16]

The last significant review of the role of branch lines in the freight task occurred in 2004 as part of the Grain Infrastructure Advisory Committee (GIAC) Report into Rail/Road Options for Grain Logistics. At that time GIAC estimated that a branch line carried on average 88,000 tonnes of

[14] Productivity Commission Inquiry, *Road and Rail Freight Infrastructure Pricing,* No. 41, December 2006, xxxvi
[15] Ibid., xxxiv
[16] CRA International, *Two Case Studies on Road v Rail Freight Costs*, 25 May 2006, pg 3.

product which equated to 2,300 truckloads. This in turn translated to 4,600 truck movements (assuming that trucks moving grain returned to their point of origin).

The above map clearly shows the large number of silos that are located on non-operational branch lines. REROC has estimated that the following additional truck movements would have resulted from branch line closures in the region:

Branch line	Average Tonnes	Truck Movements	Road Length (kms)	Additional kms travelled
Burcher-West Wyalong	30000	1,552.80	40	62,111.80
Ungarie-West Wyalong	41000	2,122.15	40	84,886.13
Naradhan-Ungarie	60400	3,126.29	106	331,387.16
Rankins Springs-Barmedman	80000	4,140.79	193	799,171.84
Lake Cargelligo-Ungarie	112000	5,797.10	116	672,463.77
Boree Creek-The Rock	88000	4,554.87	59	268,737.06
Total		**21,294.00**		**2,218,757.76**

Most of the affected road networks are local roads meaning that local government is meeting the additional maintenance costs that result from the increased traffic movements. In 2004 GIAC estimated that cost recovery on branch lines was 6 per cent or less and that it would increase to only 9 per cent if branch lines were upgraded. GIAC concluded that branch lines would only be competitive with road if it were subsidised.[17] However, REROC members argue that road freight is being subsidised, by councils and ratepayers who are picking up the cost of increased use of local roads for grain freight.

The REROC member councils believe that the challenges of moving freight across large geographic regions to port can be best met by the efficient and effective use of rail supported by a series of well-placed intermodal hubs. Operational branch lines are an important part of that solution and therefore should be given a higher priority at the State planning level.

[17] Australia Government, Department of Infrastructure, Transport, Regional Development and Local Government, *Road and Rail Freight: Competitors or Complements?,* July 2009.

APPENDIX ONE – MULTI-CRITERIA ASSESSMENT MATRIX

REROC members developed and agreed to the use of a weighted matrix to assess each of the 39 freight routes identified in the Plan. The intention was to use the matrix categorise the routes according to the impact the route's constraint or constraints had on the efficient movement of transport. Where a route traversed more than one LGA the council in each LGA assessed the section of the route as it pertained to their LGA. Consequently, a route may appear more than once on the Route Constraints Assessment because it traverses more than one LGA and in each of those LGAs there is a constraint that impacts on freight transport. In order to ensure uniformity in the assessment process, each criteria and score was given a descriptor to guide the scoring process. The assessment matrix is reproduced in Appendix One.

The goal of the assessment is to inform investment decisions in relation roads in the region. The order presented represents the scoring achieved using the matrix, however all the listed roads are integral to the freight task in the REROC region and where an opportunity presents for investment in any one of the routes, which will address some or all of its constraints, then REROC will pursue that opportunity.

Road Usage Level (Most recent Traffic Counts)

0	
1	Less than 250 per day
2	Between 251 and 500 vehicles
3	Between 501 and 1000 vehicles per day
4	Between 1000 and 3000 vehicles per day
5	More than 3000 vehicles per day

Crash History (Last 5 years)

0	No crash history
1	Few crashes, little property damage, no major injuries and no fatalities
2	Some crash history, some property damage, no major injuries and no fatalities
3	Regular crashes, resulting in property damage, some major injuries but no fatalities
4	Regular crashes, resulting in property damage, major injuries but no fatalities
5	Regular crashes, resulting in property damage, major injuries and some fatalities

Impact on Traffic if Road was Closed for 24 hours

0	No impact
1	Little or no impact and limited costs to industry and community
2	
3	Significant impact and costs to industry
4	
5	Major impact and costs to industry and community

Grain Freight Route

0	Not used for grain freight
1	Less than 20% of grain trucks use route
2	Between 20% and 50% of grain freight use route
3	Between 50% and 70% of grain freight use route
4	Between 70% and 90% of grain freight use route
5	More than 90% of grain trucks use route

Livestock Freight Route

0	Not used for livestock freight
1	Less than 20% of livestock freight use route
2	Between 20% and 50% of livestock truck freights use route
3	Between 50% and 70% of livestock truck freight use route
4	Between 70% and 80% of livestock truck freight use route
5	90% or more livestock truck freight use route

Timber Freight Route

0	Not used for timber freight
1	Less than 20% of timber truck freight use route
2	Between 20% and 50% of timber truck freight use route
3	Between 50% and 70% of timber truck freight use route
4	Between 70% and 80% of timber truck freight use route
5	90% or more of timber truck freight use route

HML Route

0	Not a designated HML route
1	HML route used rarely by HML
2	HML route used sometimes by HML vehicles
3	HML route used regularly
4	HML route used consistently by HML
5	HML route used heavily by HML

B Double Route

0	Not a B double route
1	B Double route used rarely by B Doubles
2	B Double route used sometimes by B Double vehicles
3	B Double route used regularly
4	B Double route used consistently by B Doubles
5	B Double route used heavily by B Doubles

Road train and Other Restricted Access Vehicles (excluding B Doubles) Route

0	Not a road train route
1	Road Train route rarely used by Road Train
2	Road Train route sometimes used by Road Train
3	Road Train route used by Road Train
4	Road Train route consistently used by Road Train
5	Road Train route used heavily by Road Train

Recognised as a Regional Route of Economic Significance

0	Carries less than $10 million in freight per annum
1	Carries between $10 million and $50 million in freight per annum
2	Carries between $50 million and $100 million in freight per annum
3	Carries between $100 million and $500 million in freight per annum
4	Carries between $100 million and $500 million in freight per annum
5	Carries in excess of $1 billion in freight per annum

Impact of Road Constraints on Industry (Economic Impacts)

0	No constraint
1	Industry might incur additional costs if the route was used
2	Industry would incur additional costs if it used the route
3	Industry is incurring additional costs as a direct result of the road's...
4	Industry is incurring significant additional costs as a direct result of...
5	Industry is incurring substantial additional costs as a direct result of...

The Road should be opened to RAVs

0	Does not apply
1	Opening of road would provide no benefits
2	Opening road would provide limited benefits to the LGA but little or no benefits to the region
3	Opening road would provide identifiable economic or social benefits to the LGA and...
4	Opening road would provide identifiable economic and social benefits to the LGA and...
5	Opening road would provide identifiable economic and social benefits to the LGA and...

Part of a Designated RMS Bypass Route

0	Not a bypass route
1	Used as a bypass for very low trafficked roads
2	Used as a bypass for low trafficked roads
3	Used as a bypass for medium trafficked roads
4	Used as a bypass for High Trafficked roads
5	Used as a bypass for very high trafficked roads

Impact on Town Amenity

0	No impact on town amenity
1	Minimal impact on town amenity
2	
3	Significant impact on town amenity
4	
5	Major impact on town amenity

Established Tourism Route

0	Not a tourism route
1	Road rarely used by tourists
2	Route sometimes used by tourists
3	Road regularly used by tourists
4	Road consistently used by tourists
5	Road always used by tourists

Identified in the NSW Regional Transport Plan

0	Not in the Regional Transport Plan
1	Mentioned in the Transport Plan but no action recommended
2	Mentioned in the Master Plan, limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the transport plan

Identified in the NSW Master Transport Plan

0	Not mentioned in the master plan
1	Mentioned in the Transport Plan but no action recommended
2	Mentioned in the master plan, limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the major plan

Identified in the Riverina Regional Action Plan

0	Not mentioned
1	Mentioned in the Transport plan but no action recommended
2	Mentioned in the master plan limited action recommended
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Identified for immediate action in the Plan

Identified in the NSW Freight and Ports' Strategy

0	Not mentioned
1	Mentioned in the Transport Plan
2	Mentioned in the Master Plan
3	Identified in the Plan for action in the long term
4	Identified in the Plan for action in the medium term
5	Singled out for immediate action in the Plan

APPENDIX ONE – ASSESSMENT MATRIX TEMPLATE

ROAD NAME:	Does not apply	Very Low	Low	Medium	High	Very High	Multiply by Weighting	Total	Comments
Criteria	Score = 0	Score = 1	Score = 2	Score = 3	Score =4	Score = 5			
Road Usage Level (Most recent Traffic Counts)							5	0	
Crash History (Last 5 years)							5	0	
Impact on Traffic if Road was Closed for 24 hours							4	0	
Grain Freight Route							4	0	
Livestock Freight Route							4	0	
Timber Freight Route							4	0	
HML Route							5	0	
B Double Route							5	0	

Road train and Other Restricted Access Vehicles (excluding B Doubles) Route							3	0	
Recognised as a Regional Route of Economic Significance							3	0	
Impact of Road Constraints on Industry (Economic Impacts)							3	0	
The Road should be opened to RAVs							5	0	
Part of a Designated RMS Bypass Route							2	0	
Impact on Town Amenity							2	0	
Established Tourism Route							3	0	
Identified in the NSW Regional Transport Plan							1	0	
Identified in the NSW Master Transport Plan							1	0	

Identified in the Riverina Regional Action Plan							1	0	
Identified in the NSW Freight and Ports' Strategy							1	0	
TOTAL SCORE									
Ability of Rail to Address the Road Constraints									

APPENDIX TWO – 2014 LIST OF CONSTRAINTS AND COMPLETED WORKS

The 2014 REROC Freight Transport Plan identified the constraints listed below many of which have now been address through the allocation of State and Federal Funding. The Constraints highlighted in green have been completed, the constraints highlighted in orange are in progress. The constraints are described as being part of the the council LGAs that were in place in 2014.

Plan Ref. No.	Route	Major Industries Serviced	Constraints
2	Olympic Hwy (MR78/A41) *Wagga Wagga LGA*	Grain, Livestock, General Agriculture, Tourism, alternative route between Melbourne and Sydney, Melbourne and Brisbane	• Kapooka Bridge requires replacement and road realignment.
5	Burley Griffin Way (MR84) *Temora LGA*	Grain, Livestock, Forestry/Timber, Wine, Horticulture, Tourism, alternative route between Melbourne and Brisbane via link to Newell Hwy.	• Roundabout at Hoskins Street intersection impedes heavy vehicles • S Bend at Springdale requires realignment.
6	Goldfields Way (MR57,B85) *Temora LGA*	Grain, Livestock, Tourism, alternative route between Melbourne and Brisbane.	• No heavy vehicle by pass at Temora • Road between Barmedman and West Wyalong subject to flooding • Road pavement between Barmedman and West Wyalong inadequate • Railway Crossing at Barmedman requires realignment
7	Sturt Highway (HWY20) *Wagga LGA*	General Freight, Tourism	• No bypass at Wagga Wagga • Lack of parking bays to accommodate decoupling of trailers and interchanges
21	Coolac to Cootamundra Rd (MR87) (Muttama Rd) *Gundagai LGA*	Forestry/Timber, General Agriculture, Grain	• HML approval only granted for the Cootamundra section • Reef Creek Bridge requires HML assessment
2	Olympic Highway Gap Bridge (MR78/A41) *Cootamundra LGA*	Grain, Livestock, General Agriculture, Tourism, alternative route between Melbourne and Sydney, Melbourne and Brisbane	• Gap Bridge Underpass at Cootamundra, high vehicle access is limited.
2	Olympic Highway (MR78/A41) *Greater Hume LGA*	Grain, Livestock, General Agriculture, Tourism, alternative route between Melbourne and Sydney, Melbourne and Brisbane	• Roundabout at Culcairn CBD impedes oversize vehicles
30	Eunony Bridge Rd & Byrnes Road	General Freight, General Agriculture, Livestock, Grain,	• Eunony Bridge not suitable for use by CML or HML Vehicles

	Wagga Wagga LGA	Pulp and Paper	
5	Burley Griffin Way (MR84) *Cootamundra LGA*	Grain, Livestock, Forestry/Timber, Wine, Horticulture, Tourism, alternative route between Melbourne and Brisbane via link to Newell Hwy.	• Causeways between Temora and Wallendbeen subject to flooding • Roundabout at Wallendbeen impedes oversize vehicles • Overpass at Wallendbeen restricted road width impedes oversize vehicles.
13	Riverina Highway (B58) *Greater Hume LGA*	General Freight, Grain, Tourism	• Road Geometry • Bridge at Wangamong Creek
17	Boomerang Way (MR59) *Lockhart LGA*	General Freight, General Agriculture, Livestock and Grain	• Multiple Bridge Assessments required. • Road is too narrow for HML vehicles • Pavement Strength is deficient for CML vehicles.
9	Gocup Road (MR 279) *Tumut LGA*	Forestry/Timber, Pulp and Paper, Tourism	• Road width does not support projected growth of HML • Pavement strength is insufficient to deal with heavier mass vehicles.
8	Snowy Mountains Highway (Hwy 18, B72) *Tumut LGA*	Forestry/Timber, Pulp and Paper, Tourism	• Heavy vehicle curfew at Adelong creates inefficiencies for Visy Mill. • Highway runs through Adelong town centre.
18	Milvale Road (MR241) *Temora LGA*	General Freight, Tourism	• Grogan Bridge is too narrow impacting on safety
31	Harefield Road *Junee LGA*	General Freight, General Agriculture, Pulp and Paper, Livestock and Grain	• Road width inadequate for HML usage • Level Crossing at Qube Logistics does not allow for stacking.
16	Mary Gilmore Way (MR398) *Coolamon LGA*	General Freight, General Agriculture, Livestock, Grain	• Bridge not assessed
38	Bombowlee Creek Road *Tumut LGA*	Forestry	• Bridge realignment • Inadequate pavement strength and width
25	Culcairn – Holbrook Road (MR331) *Greater Hume LGA*	General Freight, General Agriculture, Livestock, Grain	• Road width
19	Cootamundra to Stockinbingal Road (MR235) *Cootamundra LGA*	General Freight, General Agriculture, Livestock, Grain	• Bridge not assessed
13	Riverina Highway (B58)	General Freight, Grain, Tourism	• Road Geometry • Bridge at Wangamong Creek

	Greater Hume LGA		
12	Tumut-Tumbarumba (Batlow Road, MR85 north) *Tumbarumba LGA*	Forestry/Timber, Tourism	• The route is too narrow for HML vehicles. • Pavement strength is deficient to meet the demands of HML vehicles. • Intersection Geometry in Tumbarumba Township does not accommodate road trains and HML vehicles.
27	Kywong Howlong Road *Greater Hume LGA*	Livestock, Grain, Tourism	• Pavement width and strength are inadequate
15	Wagga to Coolamon (AADT1730) to Ardlethan (AADT480, MR240) *Wagga Wagga, Coolamon, Temora LGA*	General Freight, General Agriculture, Livestock, Grain	• Bridges not assessed
10	Wagga to Tumbarumba (MR284, State Road/MR384, Regional Road) *Greater Hume LGA*	Forestry/Timber, General Agriculture, Tourism	• Different road classifications which restricts access to heavy vehicles • A number of bridges have not been assessed
28	Ardlethan Township *Coolamon LGA*	General Freight, General Agriculture, Livestock, Grain	• Deficient pavement strength for Road Train and HML use
14	Canola Way *Junee LGA*	General Agriculture, Grain	• Restricted B Double access, no access between Nangus and Gundagai • Tight movement in Junee township
34	Sutton's Lane *Cootamundra LGA*	General Freight, General Agriculture, Livestock, Grain	• 3.2 kms of the Road is unsealed • Railway Bridge not Assessed
36	Coppabella Road *Greater Hume LGA*	Forestry, Timber	• Currently unsealed for more than half its length with poor pavement and alignment
24	Jingellic Road (MR331) *Greater Hume LGA*	General Freight, General Agriculture, Livestock, Grain, Forestry/Timber	• Restricted B Double access • Some parts of the road have inadequate width for large vehicles • Poor vertical and horizontal alignment in a number of locations • Bridges not assessed – multiple bridge assessments required

10	Wagga to Tumbarumba (MR284, State Road/MR384, Regional Road) *Tumbarumba LGA*	Forestry/Timber, General Agriculture, Tourism	• Different road classifications restricts access for heavy vehicles • A number of bridges along the route have not been assessed and therefore are not approved for HML usage.
25	Culcairn – Holbrook Road (MR331) *Greater Hume LGA*	General Freight, General Agriculture, Livestock, Grain	• Road between Morven and Holbrook requires widening by 1.5 metres
20	Holbrook to Wagga Wagga Road (MR211) *Wagga Wagga LGA*	General Freight, General Agriculture, Livestock, Grain	• Poor vertical and horizontal alignment • Inadequate pavement width for large vehicles • Multiple bridges that have not been assessed as suitable for HML vehicles • Restricted B Double access
26	Federation Way (RR131) *Urana LGA*	General interstate freight	• Road pavement is inadequate to meet heavy vehicle traffic
23	Tooma Road (MR628) *Tumbarumba LGA*	Forestry/Timber, Livestock, Tourism	• B Double access does not cover the entire route. • Road is too narrow, vehicles that meet a B-Double on the Clarke's Hill section are forced to the edge of the seal or onto the road verge.
29	Combaning Road, Temora Shire and Junee Shire *Temora and Junee LGA*	General Freight, General Agriculture, Livestock, Grain	• A 10 tonne limit applies to vehicles in the Junee Shire which limits access to the Bomen Industrial Area at Wagga Wagga
12	Tumbarumba-Jingellic Road (Jingellic Road, MR85 South) *Tumbarumba LGA*	Forestry/Timber, Tourism	• Access to Jackson's Bridge is restricted until realignment works are undertaken. • The route is too narrow for HML vehicles. • Pavement strength is deficient to meet the demands of HML vehicles. • Intersection Geometry in Tumbarumba Township does not accommodate road trains and HML vehicles.
32	Old Narrandera Road *Wagga Wagga LGA*	General Freight, General Agriculture, Livestock, Grain	• Bridges over several creeks along the road have not been assessed

35	Hopefield Road, Greater Hume and Corowa *Greater Hume, Corowa LGA*	Local agricultural transport and light vehicles	• Bridge 12km from the Riverina Highway needs to be updated
22	Coolamon to the Rock (MR543) *Coolamon, Wagga Wagga, Lockhart LGA*	General Agriculture, Grain	• Mundowy Bridge not assessed
11	Alpine Way (MR677, B400) *Tumbarumba LGA*	Tourism	• Restricted access for Long Vehicles from Khancoban to Tom Groggin. • Subject to road closures.
37	Grubben Road – Greater Hume *Greater Hume LGA*	Grain, Livestock	• Inadequate stacking space/accommodation for long vehicles waiting at the trail head to access the storage
39	Bygoo Road *Coolamon LGA*	General Freight, General Agriculture, Livestock, Grain	• Deficient road width for Road Trains • Deficient pavement strength for Road Train and HML use • Intersection geometry unsuitable for road trains • Drainage structures of unknown structural standard
11	Courabyra Road *Tumbarumba LGA*	General Freight, Tourism	• 15 tonne limit applies for part of its length, the road requires strengthening for the limit to be removed. • Pavement width and seal width inadequate.

GLOSSARY OF TERMS

AADT – Average Annual Daily Traffic

CML – Concessional Mass Limits

GIAC – Grain Infrastructure Advisory Committee

High Vehicle – is a vehicle between 4.3 and 4.6 metres in height e.g. triple decker stock truck, a car carrier.

Higher Mass Limits – HML provides a significant increase in the productivity of road freight transport vehicles as detailed below:

Vehicle Configuration	Standard (Gross) Mass Limit*	Concessional Mass Limit (CML)*	Higher Mass Limit (HML)*
19 metre (6 axle) semi-trailer	42.5 tonnes	43.5 tonnes	45.5 tonnes
25/26 metre (9 axle) B-Double	62.5 tonnes	64.5 tonnes	68 tonnes
Double Road Train	79 tonnes	81 tonnes	85 tonnes

HML – Higher Mass Limits

LGA – Local Government Area

MIA – Murrumbidgee Irrigation Area

REROC – Riverina Eastern Regional Organisation of Councils

RIFL – Riverina Inland Freight Logistics Hub

RMS – NSW Roads and Maritime Services