



SUBMISSION BY THE RAIL, TRAM AND BUS UNION (QLD BRANCH)

TO

THE COORDINATOR-GENERAL

EIS Project Manager - Cross River Rail

DEPARTMENT OF EMPLOYMENT OF EMPLOYMENT, ECONOMIC DEVELOPMENT AND
INNOVATION

ENVIRONMENTAL IIMPACT STATEMENT FOR THE CROSS RIVER RAIL PROJECT

OCTOBER 2011

Introduction

The Australian Rail, Tram and Bus Industry Union (RTBU) welcome the opportunity to contribute to the Coordinator Generals Environmental Impact Statement (EIS) for the Cross River Rail Project (CRR).

The RTBU is a federally registered union of employees with a membership of 35,000 members, 4,000 of which are in South East Queensland. The RTBU has members employed in the provision of:

- Passenger bus & rail
- Freight rail
- Rail Infrastructure and maintenance

RTBU members perform a range of functions including operations, maintenance and administration. As the representative union of employees in passenger and freight rail transport, the RTBU maintains a vital interest in promoting the social and economic importance of rail infrastructure to the public.

In particular, RTBU members and officials have consistently contributed to debate on matters such as the broader environmental issues of urban planning, efficient passenger and freight transit, energy use, reducing greenhouse gas emissions and social justice.

This submission is part of an important and ongoing community discussion about the many dimensions of urban passenger rail and rail freight transport.

The RTBU firmly believes that the broader outcomes to the community and economy of - effective and efficient transport networks; safe and viable transport services; and environmentally sustainable transport infrastructure – need to be comprehensively covered within the environmental impact statement for the CRR project.

This submission will identify perceived weaknesses in the CRR project.

In light of the RTBU's unique understanding of rail industry operational and technical issues, we are willing to accommodate any request for further input as the CRR project proceeds.

The RTBU would also be grateful for the opportunity to be formally involved with any formal advisory bodies that may provide ongoing advice on planning, implementation, operational and/or technical issues in the future concerning the CRR project.

For further information about any matter contained in this submission, please do not hesitate to contact me on (07) 3839 4988.

Yours sincerely



OWEN DOOGAN
SECRETARY

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Submission Background/Context

In the RTBU submission's to the Department of Planning and Infrastructure's *Draft South East Queensland Regional Plan*, and the draft *Connecting SEQ 2031: Integrated Regional Transport Plan for South East Queensland*, the RTBU has vehemently advocated for significant investment in rail infrastructure for the SEQ region.

The RTBU has previously been concerned about the vast imbalance in funding between road and rail modes. Such investment has skewed the nature of urban development, increased the costs of transportation (both commuting and freight) and decreased the amenity of urban environments.

The RTBU believes that it is imperative that the EIS comprehensively analyse and properly recognise the real 'on-costs' to the economy, and community, of any substantial increase in population in South East Queensland – without a related commitment to the CRR project.

The EIS must recognise that travel demand will increase with population growth and the associated increase in economic activity. Inaction will cause the cost of urban traffic congestion to increase significantly. Obvious avoidable costs include extra travel time, greater oil dependency, lower economic growth, poorer air quality and a lost opportunity to effectively redevelop existing inner-city areas.

Therefore, recommendations contained within this submission are framed with a view to ensuring the EIS satisfactorily recognises the social, economic and environmental benefits of an integrated approach to transport and land use planning.

The RTBU is specifically interested in the broader questions of how the CRR project will:

Build a productive city with a more efficient transport network

Build a more liveable city, and

Build a more sustainable city

Such an approach will ensure a proper inquiry is made into how the CRR project will promote Brisbane's role in the national economy and provide better places for living, working, shopping, education and other community and recreational facilities.

How the EIS can be enhanced and additional issues for consideration will be outlined in the body of this submission.

Cross River Rail Project

RTBU specific responses to sections of the CRR EIS Executive Summary (ES)

Background (EIS ES 2.1)

In our previous submission to the Department of Planning and Infrastructure on the terms of reference (TOR) for an EIS for Cross River Rail in 2010, the RTBU advocated that extending the tunnels from Fairfield to the Clapham industrial area and rail facility would allow for a construction site to be located in an industrial area – rather than a residential area. The RTBU welcomes the resulting shift of the proposed portal and the associated minimisation of adverse residential property and road network impacts.

The Yeerongpilly portal is an improvement and this provides an important rail network operational outcome by being clear of the Yeerongpilly junction. It still however does not deal with capacity constraints on the south side between Yeerongpilly and Salisbury Junction going forward.

The RTBU supports the Cross River Rail project and welcomes this initiative; however the Cross River Rail tunnel by itself will not solve all the SEQ rail capacity constraints going forward.

Whilst the CRR project releases and improves capacity in the inner city area, it also potentially moves the key points of constraint to the North (Albion to Northgate) and to the South (Moorooka to Salisbury). This will ultimately result in additional capacity constraints and produce a sub optimal outcome. The CRR project currently appears to be planning through the prism of a 20-year timeframe. In order to avoid future capacity issues, the planning timeframe should be expanded to consider rail investment needs over the next century.

Additional enabling infrastructure that deals with capacity constraints and the ability to grow the rail task in south-east Queensland should be part of the CRR project assessment process.

The Coordinator General, in assessing the environmental impact of the CRR project, should move beyond the normal and narrow EIS focus of the project boundaries. The RTBU proposes that the Coordinator General should take a strategic view of the project and its potential intergenerational contribution by considering a 100 year approach to assessing the benefits of this important nation building project.

The Coordinator General in assessing the CRR project should look beyond addressing the current inner city narrow gauge capacity constraints and recommend that the scope of the project should be broadened to at least consider other nation building opportunities.

The project should consider the very high speed east coast rail project by making provision for dual gauge high capacity rolling stock. This should include high-speed standard gauge structure clearances and performance criteria including allowance for the mooted Sunshine Coast-Gold Coast “CoastLink” service as proposed in *Connecting SEQ 2031*. This service would enable higher speed and higher

capacity passenger services to operate between the Sunshine Coast and the Gold Coast as well as connecting these growing population centres to northern New South Wales and Sydney.

The CRR project is a unique opportunity to enable the development of a high frequency and high-capacity rail network in south-east Queensland. Additional network enhancements should be considered rather than a narrow focus on the Cross River Rail tunnel in isolation.

The RTBU is concerned about the incremental and minimalist approach to investment in rail infrastructure in Australia. Decisions about corridor preservation and property acquisition for rail projects are based on the initial short-term requirement of the project under consideration rather than preserving enough corridor land for long-term requirements. This approach should change.

Project goals and objectives (EIS ES 2.2)

The RTBU notes the proposed Cross River Rail stations at Woolloongabba, Albert Street and Roma Street only have two tracks.

The RTBU considers that the Cross River Rail stations at Woolloongabba, Albert Street and Roma Street need to have provision for four tracks to allow increased passenger capacity flows and throughput. These assets should be structured to have a lifespan of up to 100 years and therefore need to have provision at the initial construction phase for at least four tracks at the three major stations. In particular, Woolloongabba will need increased passenger capacity for major sports events.

It's likely that Albert Street Station will experience patronage at least as high as Central currently does, but with 2 platforms as opposed to 6. The dwell times will be a limiting factor on the throughput, and reduce the value that comes out of the project. Similarly Roma Street, with the large number of interchanges, and Woolloongabba, in event situations, would benefit from dual platforms.

Ultimately the failure to provide dual platforms, particularly at Albert Street, will result in a suboptimal outcome in terms of the number of train paths that are provided by the CRR project. This will bring forward future infrastructure investments and ultimately cost the state more money in the long run.

Project construction (EIS ES 2.4.3)

Scheduling construction activity will be a challenge for authorities as the CRR project comes to fruition. It will be essential that careful planning is undertaken to ensure that the benefits of the CRR tunnel are optimized and that disruption on other areas of the network is kept to a minimum.

Additionally, as the CRR project proceeds, a number of pieces of enabling infrastructure will need to be constructed long before surface track work construction occurs in both the southern and the northern sections.

The North-South surface “tie in” points as defined in the EIS create a situation where the capacity increases that this project is designed to encourage will be limited as a consequence of burdensome construction delays. Careful planning needs to be undertaken to ensure that these delays do not unduly hinder the project.

The minimalist property footprint approach that is being taken by the CRR project at key south and north tie-in points for surface works where it interfaces with the existing network appears to be short-sighted. It will no doubt necessitate a disruption to freight and passengers services whilst this construction occurs. Whilst a minimalist approach to property acquisition may initially appear to save costs, the trade off with disruption to existing freight and passenger services may well result in greater costs and risks.

It is important that construction and staging is designed in such a way that it causes minimal disruption to existing services, otherwise displacement of services during a prolonged construction period could result in modal shift from public transport to private vehicles and rail freight modal shift onto the road network. Such a course of events would be counterproductive to what is trying to be achieved with the CRR project.

Should excessive construction activity cause delays and disruption resulting in modal transfer, likely impacts would include increased fuel consumption, increased greenhouse gas emissions, road network congestion, and community concerns. This is of concern to the RTBU and our members.

It appears that the proposals regarding construction of surface works have been made to reduce construction costs and timelines without consultation with rail freight operators and consideration of the impacts on their business. Further consultation should occur prior to project commencement.

Strategic Context (EIS ES 3.1)

Unfortunately there is a fragmented approach to rail infrastructure planning in Australia where each project is considered in isolation rather than through a complete assessment of a project's broader network benefits.

The CRR project is a transformational transport infrastructure project with a 100 year asset life and as such its design should consider keeping future opportunities open, including but not limited to operating high capacity standard gauge rolling stock. This would potentially allow the final corridor for the mooted high-speed rail link into the inner city of Brisbane.

The opportunity to align the CRR project benefits with the future strategic requirements of the rail network as defined by the *Connecting SEQ 2031* map on page 49 in the Executive Summary appear to have been overlooked. The interface between the Salisbury to Flagstone/Beaudesert study and the CRR project at Salisbury Station appear to have been overlooked within the CRR EIS.

Salisbury Station is identified as a major station in *Connecting SEQ 2031* and potentially the most significant non inner-city station in the SEQ network. Therefore the track arrangements for Moorooka, Rocklea through to Salisbury Station and Junction are a critical section of the SEQ rail network.

The Coordinator General and TMR should undertake a review of the strategic benefits and costs of maintaining Rocklea station given the catchment and close proximity to the Moorooka station and Salisbury station, particularly in the context of improved pedestrian connectivity from Rocklea to a newly repositioned Salisbury station.

The RTBU considers that how the track arrangements are planned in this area is critical to enabling the optimisation of both projects. In the absence of a strategic alignment and integration between these two projects, the ultimate goal of meeting future network growth requirements as defined in *Connecting SEQ 2031* may not be achieved.

Existing rail network and capacity (EIS ES 3.2)

The CRR operating paradigm and the proposed services sectorisation for 2021 and 2031 are likely to constrain freight services on the north-south corridor between Normanby and Northgate. Until such time as the North West Rail Corridor from Alderley to Strathpine is operational, there will be no benefit. After the NWRC is operational, it may free up some capacity between Northgate and Strathpine as long as passenger services are not increased on this corridor.

The major constraints to capacity and performance of rail network services are flat junctions and crossovers where inbound and outbound services converge and cross. An example of this the location at which trains wait whilst other trains cross. A passenger train may cause a delay of 1 to 2 minutes whilst a freight train may take between 6 and 9 minutes to cross at some locations, particularly where a number of tracks need to be crossed like at Corinda junction. At this location, conflicting “at grade” moves are the main constraining issue.

This is predominantly an issue at locations where passenger and freight train services share a common network – as in much of the SEQ network.

Given the CRR project covers a critical part of the region’s freight network, a whole of network solution must be found to accommodate the anticipated growth in passenger demand and freight traffic.

The RTBU believes the current proposal of a tunnel from Yeerongpilly to Exhibition only provides a short term resolution to constraints at Park Road, Merivale Bridge and the junctions west of Roma St.

Furthermore, other SEQ major rail network junctions that need to be addressed include Salisbury, Corinda, West of Roma St, Exhibition/Mayne/Bowen Hills and Northgate.

It is submitted that the EIS should further investigate the broader effects of the current CRR project on capacity, levels of service, freight operations and patronage.

However, the RTBU submits that the EIS should also investigate capacity, freight operation, efficiency and patronage effects of a variation to the CRR project which extends the tunnel further south to avoid the future Salisbury junction conflicts and extends the northern tunnel to avoid the Mayne/Bowen Hills junctions.

The RTBU also notes the risks and consequences of the reference design’s provision of a short passenger-only tunnel with steep grades. The potential negative impacts on the operation of trains, including existing rolling stock designed for lesser grades, is a strategic operational issue that should be further investigated in this EIS.

A further extension of the tunnels to the north and south would allow a lesser ruling grade which is preferable for the operation of all trains.

It is the RTBU’s view that the EIS provides an opportunity for the Coordinator General and the proponent DTMR to re-evaluate the merits of extending the north and south tunnel portals to eliminate additional flat junction crossovers at Salisbury. An alternative approach would be to construct additional surface tracks north and south of the tunnel portals to optimise CRR capacity.

Travel demand (EIS ES 3.1)

In recent years, the issue of road congestion has become a serious concern. At this point, the problem is only getting worse, and building more roads is no longer a solution.

It was recently stated by the Parliamentary Secretary for Regional Development and Northern Australia that “the expansion of the urban passenger rail networks in the various major cities is also critical to the alleviation of congestion with its attendant economic and social costs”¹.

With the population of the South East Queensland region expected to double over the next 50 years, it can only be anticipated that the projected traffic growth for the region, and annual economic cost of congestion, will significantly increase.

It is also noted that traffic congestion could lead to other externalities in the region including increased fuel usage, poorer air quality, noise pollution, greenhouse gas emissions, greater accident costs and poorer health².

It is submitted that the EIS must undertake an analysis of how the CRR project will reduce congestion (including its social and economic costs), improve air quality and road traffic noise in the 5, 10 and 15 years following completion of the project – compared to a ‘do nothing’ approach.

¹ Speech by the Parliamentary Secretary for Regional Development and Northern Australia, the Hon. Gary Gray to the Australian Rail Summit, Sydney, 2008.

² See for example, Senate Standing Committee on Rural and Regional Affairs and Transport, *Australia’s future oil supply and alternative transport fuels*, Commonwealth of Australia, Canberra, 2007.

Construction impacts on Rail operations (EIS ES 4.4.1)

The construction impacts outlined on page 62 are as follows:

“The extent of surface works would be significant within the rail corridor south of the portal at Yeerongpilly and north of the portal at Victoria Park. Generally, passenger and freight services would continue to operate, except when the Project required possession of the tracks through scheduled night-time, weekend and other periods of rail shut-downs.”

The RTBU is concerned that the CRR EIS appears to significantly understate the risks and implications of such closures (track possessions) particularly for freight operators and their customers and the passenger services.

The major CRR challenge is the staging and construction implications on the existing network and services.

The most significant surface construction area will be on the Northern section resulting from the Exhibition station total rebuild with 4 tracks from the portal through to Mayne and 2 tracks to be built on an elevated structure through Mayne to the Breakfast Creek rail bridges.

This is a critical section of the network that is shared between passenger services in and out of Mayne and freight services travelling to or from North Queensland.

The risk of significant disruption is that it could result in increased modal transfer of rail freight to road. This would have broad and adverse cumulative impacts including increased fuel consumption, increased greenhouse gas emissions, road network congestion, and community concerns.

It appears that the proposals regarding construction of surface works have been made to reduce construction costs and timelines without consultation with rail freight operators and consideration of the impacts on their business or other affected stakeholders.

In the view of the RTBU construction and staging needs to occur in a way that doesn't compromise existing services for both passenger and freight services.

CRR Project Construction Delivery Issues

CRR Construction Closures Impact assessment

The proposed construction arrangements at the northern and southern surface “tie in” points will potentially have severe implications for rail operations. The extent of track possession closures appears to be significant, particularly at the northern end as a result of the major surface works from Exhibition through to Breakfast Creek.

These works will require numerous prolonged closures which will have a negative impact on the rail operators businesses (without acceptable alternatives) and in turn their customers which operate on a just in time delivery service from freight forwarders using rail freight to far north Queensland.

Freight services utilising the north-south corridor from Normanby through Exhibition to Breakfast Creek rail bridges will also be adversely affected by extensive closures resulting from surface works. The EIS indicates that surface works at the Southern and Northern interfaces are indicated in the EIS to take between 30 and 55 months.

The EIS further indicates that the most significant surface construction area will be on the Northern section as a consequence of the Exhibition station total rebuild and the construction of 4 tracks from the portal through to Mayne. Additionally, the construction of 2 tracks on an elevated structure through Mayne to the Breakfast Creek rail bridges will cause significant delay.

These works will require numerous prolonged closures which will negatively impact on rail freight operators businesses and in turn their supply chain customers.

Again, the risk of such disruption is a significant increase in modal shift in both the freight and passenger sectors. A number of assumptions appear to have been made regarding construction timelines and it is the position of the RTBU that these need to be carefully re-considered and more advanced planning undertaken to ensure the minimisation of disruption to freight and passenger operators.

Potential Mitigation Options

An alternative approach would be to maintain existing network services with minimal track closures however this would require an additional property “footprint” beyond that indicated in the CRR EIS reference design.

Additional property footprints would be required at key locations. This would allow for improved safety outcomes with “off line” constructions requiring minimal closures for the surface works.

The RTBU accept that it is a challenge to manage the trade-off between minimising construction costs by maintaining construction continuity and minimising disruptions to both freight and passenger services on the network.

However, the CRR EIS report appears to significantly understate the risks and implications of closures, particularly for the rail freight operators and their customers. To minimise the adverse impacts of construction on existing passenger and freight operations, the RTBU suggests the Coordinator General impose robust and stringent conditions to minimise any track closures.

Air quality and Greenhouse gas emissions (EIS ES 5.10)

The use of the private motor vehicles is a major contributor to greenhouse gases and to other forms of air pollution. It is clear that fewer vehicles on the road, as a result of the CRR project, will result in lower levels of air pollution. The current contribution of motor vehicles to air pollution will further be exacerbated by future increases in traffic congestion.

It follows that the greater the use of public passenger transport as a result of the CRR project, the cleaner the region is likely to be.

According to a study by the Bureau of Transport and Regional Economics “In 2000, motor vehicle pollution accounted for between 900 and 4,500 morbidity cases – cardio-vascular disease, respiratory disease and bronchitis – and between 900 and 2,000 early deaths”³. The report went on to make an estimation of the economic costs at between \$1.6 billion and \$3.8 billion.

There is no doubt that the cost is substantial and that an increase in the availability and use of public passenger transport through the CRR project can make a positive contribution to reducing the incidence of health problems and their associated costs to the community.

Transport is the third largest contributor to greenhouse gases in Australia. Of the total transport emissions, 89% come from road transport, 6% from rail transport and 5% from sea transport. Emissions from private motor vehicles account for 54% of transport emissions. On the freight side, road vehicles dominate with 87% of emissions⁴.

It is clear that climate change can't be addressed without addressing the sustainability of our urban transport networks.

A modal shift of freight and passengers from road to rail will contribute to the carbon pollution reduction effort. The Australasian Railways Association, for example, has noted that one freight train can take 150 trucks of the road, save 45,000 litres of diesel and save 44 tonnes of greenhouse gases⁵.

Given transport is one of the highest emitters of greenhouse gases; passenger and freight rail transport will be a key player in reducing emissions.

It is submitted that the EIS should provide a clear assessment of any projected reduction in greenhouse gas emissions in the 5, 10 and 15 years following the completion of the CRR project – compared to a 'do nothing' approach.

³ Bureau of Transport and Regional Economics, *Health Impacts of Transport Emissions in Australia: Economic Costs*, Working Paper 63, Commonwealth of Australia, Canberra, 2005.

⁴ Total Environment Centre, *The Contribution of Freight Transport to Australia's Greenhouse Gas Emissions and Outline of Strategy*, Total Environment Centre, Sydney, 2008.

⁵ Australasian Railways Association, *The Green Paper Completely Ignores Rail*, Press Release, Australasian Railways Association, Canberra, 2007.

Economic Analysis (EIS ES 5.16)

The RTBU notes research by the Tourism and Transport Forum which suggests that there is often a rise in property values along new or improved transport corridors. It cites examples from the United States where land values within 800 metres of mass transit systems have risen by as much as 120%.

The paper refers to increases in house prices of 32 per cent near the Metrolink lines in St Louis, Missouri; 45 per cent increases in the value of apartments along the line in Santa Clara, California; a 120 per cent increase in the value of office space along the same line; and a 30 per cent rise in retail space values along the light rail system in Dallas, Texas.

The RTBU believes that the CRR project could have a similar effect in Brisbane and open the way for transit-oriented development.

It is submitted that the EIS should comprehensively investigate the CRR project's potential impact on: property values; the attraction of investment into the region; urban renewal; the creation of local jobs; productivity; reduced car dependency; and the region's long-term social and economic growth.

RTBU specific responses to CRR EIS Reference Design Context/Comments

Southern Surface Section

Salisbury Station Footprint

Reference Design General Arrangement Diagram 2 of 24

The CRR property acquisitions and road network changes need to take into account the proposed *Connecting SEQ 2031* service plans which propose that Salisbury Station will be a stop and interchange for; proposed UrbanLink Services, ExpressLink Services, Coast link services on the Beenleigh & Gold Coast Corridor, ExpressLink Services to Flagstone on the Salisbury to Beaudesert corridor and dual gauge freight services into and out of Acacia Ridge on this corridor.

This is a key North –South dual gauge rail freight corridor and it's worth noting that an objective of *Connecting SEQ 2031* is to provide additional freight capacity from Acacia Ridge to the Port of Brisbane.

Given these scenarios, the ultimate Salisbury station and Junction footprint will likely need to cater for 4 types of passenger services and 2 freight tracks. This would require rail to rail grade separations at some point to remove the crossing conflicts between the 4 types of passenger services and 2 freight services sharing this key node. There will ultimately be a requirement for 6 platform faces with 6 tracks and ideally with 2 “platform free” dual gauge north/south freight tracks at Salisbury.

The future platforms would also need to accommodate the proposed longer trains as well as comply with DDA requirements (straight and high-level platforms) particularly considering the ageing population and the associated rise in mobility issues and requirements to provide seamless connectivity and facilities.

Given all these circumstances the RTBU considers that it would be prudent for the early acquisition and preservation of sufficient property to allow for the ultimate Salisbury station/Junction and the associated road network to prevent any secondary community disruption.

The RTBU is concerned about the incremental and minimalist approach to investment in rail infrastructure in Australia. Corridor preservation and property acquisition for rail corridors is currently based on the short-term requirement of the project rather than preserving enough corridor land for long-term requirements.

Salisbury Station is identified as a major Station in *Connecting SEQ 2031* and potentially the most significant non inner-city station in the SEQ network. It is potentially therefore a suitable site for a government facilitated Transport Orient Development given that the station will ultimately have the convergence of multiple and high frequency services based on the proposed *Connecting SEQ 2031* operating paradigm.

Northern Surface Section

Exhibition to Mayne

Reference Design General Arrangement Diagrams 20,21,22,23 of 24

This is a critical section of the network that is shared between passenger services in and out of Mayne and freight services travelling to and from North Queensland.

The EIS indicates that most significant surface construction will be in the Northern section as a result of the Exhibition station total rebuild and construction of 4 tracks from the portal through to Mayne.

The Normanby to Breakfast Creek section of the network is an extremely operationally sensitive area with significant consequences arising from any disruptions or closures.

This is the main North -South freight corridor. It is also the key corridor for moving suburban and TravelTrain passenger services in and out of stabling at Mayne Yard.

Freight services utilising the north-south corridor from Normanby through Exhibition to Breakfast Creek rail bridges appear to be adversely effected by extensive closures resulting from surface works. The EIS indicates that surface works at the Southern and Northern interfaces are indicated in the EIS to take between 30 - 55 months. How the track arrangements are planned in the area is critical to enabling the optimisation of the project.