

NEWCASTLE URBAN RENEWAL STRATEGY –

COMMENT ON CLOSURE OF THE NEWCASTLE RAIL LINE

The Department of Planning and Infrastructure has proposed closure of the Newcastle Rail line from Wickham station to Newcastle.

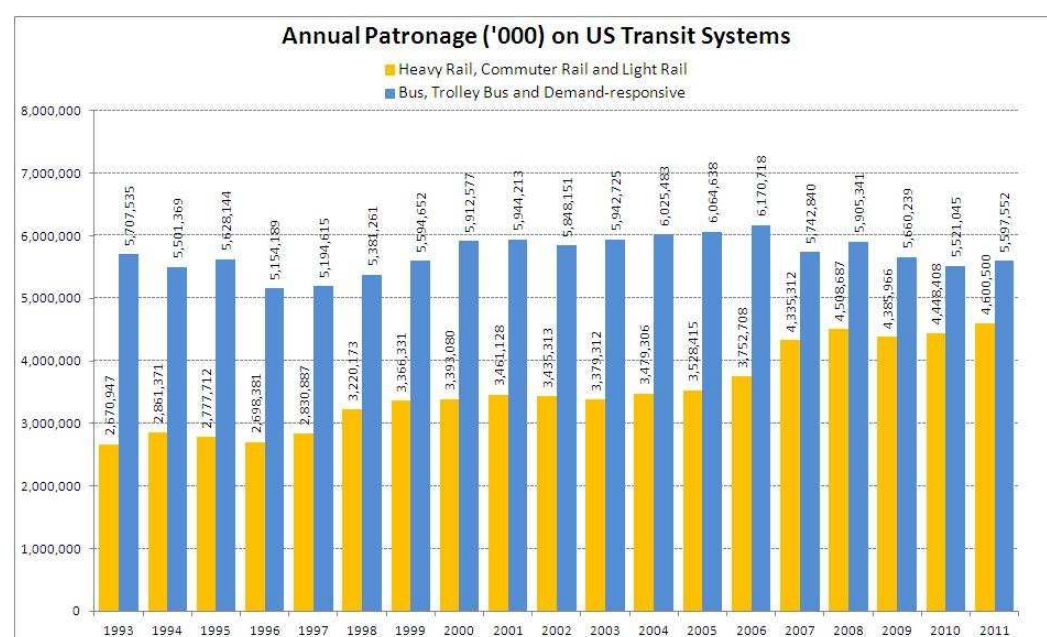
The rationale for this decision appears to be that the current rail line is perceived to create a barrier to vehicle and pedestrian movement between the Newcastle CBD and the harbour and waterfront areas along the Hunter River, and also to create visual and noise impacts, which together have held back the redevelopment of this area.

However closure of a rail line into the historic Newcastle CBD would reduce access to the CBD by those using rail, including those from the Maitland and other Hunter Valley services, as well as those using intercity services from Sydney or local rail services from Fassifern.

I strongly believe this proposal is short-sighted, and will be regretted in the longer term. I also consider that there are better solutions to overcoming the barrier and amenity impacts of the rail line whilst maintaining and improving access by public transport to the CBD, as well as providing a base for the regeneration of public transport in the Lower Hunter.

Recent trends

As you may be aware, the post world-war 2 trend to ever greater car usage and declining public transport has now reversed both in NSW and in many other countries. Public transport patronage has now been growing strongly across Australia as well as in the US, Canada, Europe, Asia, the Middle East, the Middle East and South America. Per capita car usage is falling in many countries, and total vehicle kilometres are growing slower than population growth, and in some cases even declining overall.



Perhaps less well known is the fact that almost all of the growth in public transport use in countries like the US has been on rail modes – heavy rail (metros and commuter rail) and in particular on light rail, with bus patronage generally static (see above).

This reflects the relative attractiveness of rail modes to customers in terms of comfort, speed, and legibility, which in turn has led to a major revival of investment in rail.

These trends in both Australia and overseas are now well documented (see for example Litman (2006, 2012), Gargett (2012), Davis et. al. (2012), City of Sydney (2012), Newman, Glazebrook and Kenworthy (2013), draft submitted for publication, copy attached).

These trends are the result of a range of factors, including:

- Increasing real oil and petrol prices
- A revival of inner city living and changing housing and lifestyle preferences, especially among the younger but also among older age groups
- Continued growth in the tertiary sector employment and relative decline of manufacturing and hence a reconcentration of employment in centres
- Declining attractiveness of driving as congestion and parking conditions deteriorate

These trends also underpin urban and transport strategies for virtually every city, which are almost universally aimed at increasing the sustainability of cities, improving health outcomes and strengthening local economies by taking advantage of the agglomeration and other benefits from more compact cities and greater reliance on public and active transport.

These trends are also evident in changing land values and land use patterns. Sites with good public transport access are increasingly valued, and this is especially the case where amenity is also high.

In this context of changing travel behaviour, values and policies, it would be particularly short-sighted for the Government to close a rail line into the historic CBD of NSW's second largest city, especially when it is currently embarking on major expenditure totalling over 12 billion dollars on heavy rail, light rail and metro rail projects in Sydney, and where there are alternatives to closure of the rail line which will provide much better outcomes for Newcastle CBD and the wider Hunter region.

The “barrier” issue

As noted above, the rail line provides access to Newcastle CBD from the upper and lower Hunter and from Sydney. Currently there are 172 scheduled services per weekday counting both directions (plus some movements of empty trains to and from servicing), with 15 services arriving or departing at Newcastle in the morning peak hour (7:30 – 8:30am) and 13 services arriving or departing in the evening peak hour (5:00 – 6:00 pm).

Hence the “barrier” effect caused by rail services occurs at 15 times per hour at the various level crossings, or one every 4 minutes or so. In practice, the effect is typically less than this as some trains will cross at the same time. In a typical hour (for example midday – 1pm) there are only around 10 rail services per hour counting both directions, an average of one every 6 minutes.

Table 1: Current Rail Services to / from Newcastle

	Total Weekday	Morning Peak Hour 7:30 – 8:29am	Midday 12 – 1pm	Evening Peak Hour 5:00 – 6:00pm
From Sydney / Gosford	34	3	2	3
To Sydney / Gosford	34	2	2	2
From Telerah	36	3	2	2
To Telerah	36	2	3	2
From Scone/ Muswellbrook / Dungog	9	2	0	1
To Scone / Dungog	9	2	1	2
From Morristet	8	0	0	1
To Morristet	8	1	0	0
TOTAL	172	15	10	13

The delays to vehicles and pedestrians wishing to cross the rail line are therefore less than would occur at a typical signalised intersection, where there would be typically 30 – 40 times per hour when the lights prevent them from crossing, depending on the cycle timings.

The “barrier” effect is this not especially significant, and may worsen if rail services are replaced by buses.

However, there are several options for reducing the barrier effect, including:

- Additional crossings. It is understood that Railcorp is opposed to this on safety grounds. However the safety issue needs to be considered in the wider context of overall road safety and the need to encourage rail transport, which is inherently significantly safer than road transport.
- Modification to the existing road crossings, either through an overbridge at the key intersection near Wickham station or through re-design to enable greater queue lengths for vehicles.
- In the longer term, replacing the current Morristet and Telerah electric / diesel services with tram-train services, as used in Karlsruhe and a number of other cities (see later discussion)

Noise and Visual amenity impacts

The rail line does provide some noise and visual impacts (as does any transport system). However these could be ameliorated in the short and long term by such measures as:

- Building over part of the line, thereby creating additional development potential
- Replacing current diesel-hauled services to Telerah with tram trains (see below).

Land Development Issues

The main impetus for truncation of the Newcastle branch appears to have come from interests aligned with property development.

However removal of rail service to Newcastle station is likely to reduce, rather than enhance, long term land values, and will also cause a shift back to private car use with consequent increased road congestion and need for parking.

There is ample evidence of the fact that rail access enhances land values in urban centres. Furthermore Newcastle CBD is currently under-utilised, and there is ample scope for redevelopment and intensification of uses within the existing CBD and associated areas.

Redevelopment of the corridor would be a short-sighted use of a key transport facility, and would be regretted in the long term. Re-creation of transport corridors is highly expensive and usually impossible, so this is a one-way reduction in the access potential to Newcastle CBD, which will restrict the long term potential for the centre to redevelop and renew.

Longer term Development of Rail –based Public Transport in the Hunter

Retention of the link to Newcastle will provide the opportunity for the upgrading and extension of the Hunter’s public transport services. In particular, an option which has been suggested previously by community groups and others, but not yet seriously examined by the State Government, is to introduce tram-trains on some existing services (specifically those to Morriset and Telarah) and to then further expand the tram-train services to additional corridors, including both new corridors (such as to University of Newcastle) and previous rail corridors (such as to Toronto and to Belmont).

Tram-trains are a hybrid rail technology which combines the flexibility of street-based operation of the tram with the high speed capability of trains on suitable alignments.



They enable services from outlying areas to utilise high speed and grade separated rail corridors (such as Maitland – Newcastle) but also to diverge from these corridors to run on-street into city centres or other key attractors (such as universities). In the latter environment, they operate like trams – i.e. without the necessity for fencing, boom gates or other barriers.

Tram-trains originally operated in the United States, where for example a high speed service between Chicago and Milwaukee operated on the main line, with vehicles then continuing into the city streets at both ends of the line, enhancing access to the service.

In more recent times, the German city of Karlsruhe pioneered the tram-train concept, replacing regional heavy rail services with tram-trains which used both regional and main rail lines to link to outlying towns, but then operating in conjunction with conventional trams through the heart of Karlsruhe. (see for example <http://www.tramtrain.org/en/index.html>). This service proved highly popular and experienced high patronage growth, with additional lines converted over time. It also sparked a series of similar tram-train operations in Germany, France and the Netherlands, particularly in medium sized cities such as Braunschweig, Grenoble, Strasbourg, Saarbrücken etc. The first tram-train in the UK is set to begin soon in South Yorkshire (see <http://www.telegraph.co.uk/motoring/news/9272391/Britains-first-tram-trains-set-to-run.html>).

The Hunter region is particularly well-suited to such technology:

- It includes some continuously built up areas but also some separated urban areas which in most cases grew up around coal mining. Many of these are quite some distance from the main urban centre of Newcastle
- A number of former rail alignments – for example to Toronto and to Belmont – still exist and could be converted in time to tram-train operation.
- Tram-trains could allow enhanced access to Newcastle CBD as well as to Maitland, the University of Newcastle and other areas.

Both diesel-powered and electrically powered tram trains exist, and some are designed with both low-floor and high-floor access to allow passengers to embark/disembark either at conventional stations or at the low level platforms used by trams.

Another key advantage of tram-trains in the current context is that there would be no need to operate the level crossings between Wickham and Newcastle stations except for genuine “heavy rail” services such as the Intercity trains to Sydney and Gosford, and the longer distance rail services to Scone / Dungog. Tram trains in the corridor between Wickham and Newcastle would operate like trams do elsewhere. This would reduce the number of times when the boom gates would be required to a maximum of 9 times per hour in the morning peak hour, and typically only around 6 times per hour.

Under such an operating plan, heavy rail trains would operate at reduced speed in the corridor between Newcastle and Wickham, for example 50 kph. This would only cause a slight delay (of the order of 1 minute) in the scheduled times for such services. A system of integrating rail signalling and the normal road intersection signals would be required, but this would be relatively straightforward.

Recommendation

The proposal to close the Newcastle rail line from Wickham to Newcastle station be reversed, and that a study be undertaken to:

- Identify short-term options for ameliorating the “barrier” effect and visual / noise impacts of the current rail service, including the potential to build over the line, and the potential for additional or modified crossings.

- Develop a plan to introduce “tram trains” into the lower Hunter, to enhance rather than reduce rail – based public transport in the region, with the potential to expand rail operations to existing, former as well as new rail corridors, as part of an integrated multimodal approach to upgrading public transport in the Hunter. This would include integrated timetabling, ticketing, information and fares, use of rail for key radial links, and an expanded set of cross-regional and circumferential bus links.

Dr Garry Glazebrook

University of Technology, Sydney

g.glazebrook@bigpond.com

0414-223241

REFERENCES

Independent Public Inquiry (2009): “Long Term Public Transport Plan for Sydney”. Sydney Morning Herald.

Davis, B., Dutzik, T. and Baxandall, P. (2012) *Transportation and the New Generation: Why Young People Are Driving Less and What It Means for Transportation Policy*, Frontier Group and U.S. PIRG Education Fund, Washington DC.

Gargett, D. (2012): “Traffic Growth: Modeling a Global Phenomenon”, *World Transport Policy and Practice*, Volume 18 (4): 27-45.

Litman, T. (2006): “Changing Travel Demand: Implications for Transport Planning”, ITE Journal, Vol 76, No 9. (www.ite.org). September pp27-33.

Litman, T. (2012): “The Future isn’t what it used to be”. Victoria Transport Policy Institute. www.vtpi.org.

Newman, P., Glazebrook, G. And Kenworthy, J. “The Rise of Global Rail”. Draft paper submitted for publication.

City of Sydney (2012): “Connecting our City” Technical Report. www.cityofsydney.nsw.gov.au.