Submission
No 96

INQUIRY INTO PACIFIC HIGHWAY UPGRADES

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Summary

Submission re the Pacific Highway

to the Legislative Council General Purpose Standing Committee No 4

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SUMMARY

The upgrading of the Pacific Highway to date has brought qualified benefits.

Pacific Highway upgrades to date, including the opening of the Yelgun - Chinderah bypass in August 2002 and the concurrent decision of the RTA to approve the use of B-Doubles on the entire length of the highway, have led to a significant increase in the number of long distance heavy trucks using this highway. This is a case of *'induced heavy traffic.'*

Further factors affecting the increase in heavy traffic have been the prevailing low level of road cost recovery from the heavier long - distances trucks, and, the present condition of the Sydney - Brisbane railway. The increase in heavy traffic to date has had adverse road safety and other impacts on motorists.

There is a case for selected tolls to expedite further Pacific Highway upgrading. However, upgrading the Pacific Highway and leaving the present NSW North Coast Railway in its present substandard condition will lead to a further increase in the number of heavy trucks on the Pacific Highway. Failure to upgrade the NSW Short North line between Hornsby and Broadmeadow will also contribute to growing congestion on the Sydney to Newcastle freeway.

The need for an integrated approach to road and rail infrastructure is recognised in the Federal Government's new AusLink Programme. However, with the exception of the Tugun bypass which had a strong Queensland Government influence, the NSW Roads and Traffic Authority has been apparently reluctant to explore the use of shared land corridors for road and rail upgrades. One recent example where a shared corridor has been overlooked is the proposed upgrade between Moorland and Herons Creek, with the related Environmental Impact Statement on public exhibition to 5 August 2005.

The Committee is asked to look at the role of rail for freight and passengers in the present and future use of the Pacific Highway. The Committee is also requested to investigate the potential for shared road and rail corridors, and to see a wider application of the principles of Ecological Sustainable Development to Pacific Highway upgrades.

INTRODUCTION

This submission is in part based on a recent letter to the NSW Roads and Traffic Authority re the Environmental Impact Statement for Moorland to Herons Creek that was on public exhibition to 5 August 2005.

This submission to the Committee will draw on research conducted at the University of Wollongong and supported, in part, by the CRC in Railway Engineering and Technologies. However, it does not necessarily reflect the views of any of either organisation.

1. The opening of the Yelgun - Chinderah bypass in 2002, and other Pacific Highway upgrades have led to a significant increase in the number of long distance heavy trucks using this highway. This is clearly a case of *'induced heavy traffic.'*

Further factors affecting the increase in heavy traffic have been the decision in August 2002 of the RTA to approve the use of B- Doubles on the entire length of the highway, the prevailing level of road cost recovery from heavy trucks, and, the present condition of the Sydney - Brisbane railway.

2. The additional induced heavy traffic takes away from some of the benefits of Pacific Highway upgrading for motorists. It affects both those motorists driving short distances (local traffic) and those motorists driving long distances (leading to the RTA prior to some holiday periods recommending the use of the New England Highway for Sydney people driving to Queensland).

3. One of the negative impacts of the increased heavy vehicle traffic is that of fatal road crashes involving articulated trucks. Data supplied by the NSW Roads and Traffic Authority to the University, shows that for the 10 year period to 31 December 2003 for road accidents on all sections of the Pacific Highway from Maitland to the Queensland Border, articulated trucks were involved in 30 per cent (163) of all fatalities (551). Moreover, for the calendar year 2003 with road accidents on this highway, there were 72 fatalities, of which 23 involved articulated trucks.

For the non-metropolitan sections of the Pacific Highway from Maitland to the Queensland Border, the data supplied shows that articulated trucks were involved in 36 per cent (163) of all fatalities (524), also for the calendar year 2003 road accidents on this highway resulted in 55 fatalities, of which 21 involved articulated trucks.

All available data suggests that heavy trucks are over-represented in fatal accidents on the Pacific Highway.

Further data relating to road crashes may be supplied on request.

4. As recognised by the Federal Government, who has funded to date an appreciable amount of Pacific Highway upgrading, an integrated approach is needed.

The need for an integrated approach to both road and rail infrastructure is recognised in the Federal Government's AusLink Programme. The AusLink White Paper, released June 2004, notes inter alia (on page 37), as part of investment priorities for the Sydney-Brisbane corridor, to improve transit times and train speeds by building rail deviations. These were to be at 14 locations, totalling 121 kilometres, to ease curves on the North Coast railway between Newcastle and Brisbane ($158 million). Funding for this was provided in the May 2004 Federal Budget.

An integrated approach to road and rail is consistent with Ecological Sustainable Development.

5. It is noted that for the Tugan Bypass, following a Queensland Transport 1997-98 Southern Gold Coast – Tweed Corridor study, consideration was given to a proposed rail extension and a Tugan Bypass of the Pacific Highway.

This study noted (Tugan Bypass, Technical Papers, Volume 1, p2-2) inter alia, *"The community expressed a demand for and a willingness to use public transport"*, also *"a need for a rail line, particularly a heavy rail line"*. This was confirmed in a further study conducted in July 2000 (above report, p4 -27) and a local resident survey in January 2001.

A proposed rail extension with the C4 Road Option was shown in Queensland Government Tugan Bypass Information Sheets Number 1,3,4,5 (August 2000 to No. 5)

Sections 3 and 5 of the above report of the Tugan Bypass Alliance deals briefly with Design Criteria - including for road and rail.

As a result, the Tugan Bypass of the Pacific Highway will proceed, and land will be reserved for a future rail extension.

6. With the exception of the Tugun Bypass, in recent years, the Roads and Traffic Authority appears to have given little or no attention to issues such as an integrated approach involving road and rail, induced heavy traffic on the Pacific Highway as the result of highway upgrading, Federal funding and approval for rail deviations on the NSW North Coast Line, or, the potential to share land corridors with rail in highway upgrading.

7. By way of example, the Moorland to Herons Creek EIS for a 22.2 km upgrade recently on public exhibition does not deal with shared corridors. This a major deficiency that should be now addressed.

It is noted, however, (summary) that location of the new Moorland to Herons Creek highway was severely restricted from north of Johns River to the Camden Haven River, in part, by the Main Northern Railway Line. Page 1-4 of the main report notes that the North Coast Railway Lines "closely parallel the existing highway for approximately 12.5 km from Camp Obadiah to Rossglen".

From the Camden Haven River to north of Kew the railway takes a significantly longer distance which would make this section a good candidate for a rail deviation and hence a shared corridor. This would have many advantages, including a reduction in land acquisition costs and a reduction of environmental impact on the wetlands to the east of the existing highway between Rossglen and north of Kew.

Accordingly, there is potential for a complete redesign of this proposed section of the new highway and the railway between Moorland and Herons Creek. At the very least, when land is being acquired for the new highway between Moorland and Herons Creek, extra land should be acquired at the same time to allow for re-alignment of the railway in locations where the present alignment is poor (with tight radius curves).

The section of railway from north of Kew (about 18 km along on the proposed new highway from its starting point near Johns River) and Herons Creek is also longer than it need be. It is also a candidate for a rail deviation.

One option may be for the railway to take the existing highway land when the new highway is completed.

8. It is understood that the Roads and Traffic Authority was asked in January 2004 (by the Railway Technical Society of Australasia (RTSA) - via a submission to Parsons Brinkerhof regarding the upgrading the Pacific Highway between Kempsey and Eungai) if there could be a mechanism where NSW road, rail and planning agencies could examine shared road and rail corridors within NSW. Following a 60 year lease granted as of 5 September 2004 of mainline interstate track by the NSW Government to the Australian Rail Track Corporation (ARTC), the ARTC should also be involved.

Given the earlier approach to the RTA re shared corridors, the shared road - rail corridor in the Tugan Bypass, and the Federal Government's new AusLink programme, it is submitted that the Moorland to Herons Creek EIS should have addressed shared corridors.

9. Accordingly, the Committee may wish to inquire of the Roads and Traffic Authority if further planning for the proposed Moorland to Herons Creek and Kempsey to Eungai highway upgrades will give particular attention to measures that will facilitate any future railway deviations in these areas.

10. The concept of using tolls to expedite upgrades of the Pacific Highway is supported. This was proposed in the early 1990s as part of a RTA 'Motorway Pacific' concept. The idea fell out of favour for some years, but was this year foreshadowed on 31 March 2005 by the former Deputy Prime Minister and Minister for Transport Regional Services. Here, the Hon John Anderson MP in his Media Release "PACIFIC HIGHWAY DUPLICATION TO SLASH TRUCKING INDUSTRY COSTS" noted, inter alia, in speaking to the 2005 Australian Trucking Convention in Newcastle, also that

"We will direct almost $1.5 billion to the Hume and Pacific highways. In the AusLink white paper, we set the target of completing the duplication of the Hume Highway by 2012 and the duplication of the Pacific Highway by 2016 in partnership with New South Wales.

"Duplicating the Pacific Highway will have safety benefits and will also reduce transport costs -- one estimate is that truck operators could save up to $132 per trip in time and operating cost savings. That's why I am keen to look at how we can bring forward the duplication, perhaps with a mix of shadow tolling, some direct tolls and increased government funding.

"Local residents would be exempt from any tolls, possibly by using e-tags that recognise them. The tolls would be structured so they did not affect the competitiveness of the trucking industry."

Local residents being exempt from tolls is a good idea, however, one would hope that the efficiency and competitiveness of rail would increase to assume an appreciably higher modal share of Sydney - Brisbane intercity freight than the present 19 per cent (noted in May 2005 by the ARTC). Here, part of the solution re curbing heavy traffic is also upgrading the railway line.

The Sydney Morning Herald Editorial of 29 June 2005, "The wrong tollway for the Pacific" is also of note. The editorial, inter alia the increase in heavy traffic on the Pacific Highway.

RELATED RAIL MATTERS

11. Two rail deviation were undertaken on the North Coast Line north of Grafton as part of the Keating Government's 'One Nation' 1992-95 programme. Arising from work done at that time, project engineers made suggestions for rail deviations. These are included in Appendix A. These were placed on the public record in 1996, and include specific mention of Johns Creek.

12. The concerns of former Federal MP, Mr. Colin Hollis when he was a Federal MP and Deputy Chairman of the House of Representatives Committee chaired by Mr. Paul Neville MP who produced the reports *'Planning not Patching'* (1997) re roads and *'Tracking Australia'* (1998) re rail are of note. To quote Mr Hollis from Hansard for the House of Representatives on 8 February 1999 re the poor state of the Sydney - Brisbane Railway and the need to address rail when upgrading the Pacific Highway:

"Some 396 kilometres or 41 per cent of this track fails to meet basic fast freight train standards of any curve having a radius of at least 800 metres. This is one reason why the average terminal to terminal speed on intermodal freight trains is little more than 50 kilometres per hour on this corridor. Another reason is the lack of a modern signalling system north of Casino. As found by the 1994 BTCE report for the National Transport Planning Task Force for this rail corridor: *Transit times, reliability and costs are so poor that the corridor may not survive as a commercial freight alternative unless improvements are implemented.* ...

"The Sydney-Brisbane rail corridor was noted as far back as 1989 as being in jeopardy by an earlier Booz Allen Hamilton report for State Rail. Its present outlook, at current levels of upgrading, is poor. **Indeed, the current upgrading of the Pacific Highway to a near four-lane standard by 2005 may prove to be in vain if all it achieves is taking more and more freight off rail and putting it onto B-doubles."**(emphasis added)

13. As well as the Transport Planning Task Force noted by Mr Hollis above, a Booz Allen and Hamilton 1989 Report for State Rail found this line was a candidate for closure, whilst the 1998 report 'Tracking Australia' noted above also considered that if interstate lines such as Maitland – Brisbane were not upgraded, they could face a loss of traffic that would be 'irretrievable' leading to closure.

14. The ARTC 2001 National Track Audit, and other official reports have identified the substandard nature of the Maitland – Brisbane line. Originally a string of branch lines, then joined together and extended between Kyogle and South Brisbane in 1930, over 40 per cent of this "long and winding track" has excessive curvature with radius less than 800 metres. In addition, the Engineers Australia Infrastructure Report Card has twice rated this line as F.

15. The Bureau of Transport and Regional Economics (BTRE) Information Sheet 22 *'Freight between Australian cities 1972 to 2001'* showed that for the year 2001, the Sydney - Brisbane intercapital city road freight movement was about 4.9 million tonnes, with rail having about 0.9 million tonnes. This gives rail a land freight modal share of 15.5 per cent.

The BTRE projection in this Info Sheet for 2010 indicates that, by the,n road freight will have seen major growth to about 8 million tonnes, whilst rail will have declined to about 0.6 million tonnes. This means that on this corridor, rail would then have a land freight modal share of less than 7 per cent.

These trends were projected by the BTRE to continue through to 2020 with road at 11.4 million tonnes and rail 0.3 million tonnes. This implies rail would have a paltry 2.5 per cent modal share (assuming that the line has not been closed by then).

These trends are expected to be reversed with the extensive work now underway by the ARTC, in part funded by the AusLink Programme who in July (address to the Australian Rail Summit) projected that rails share on Sydney Brisbane freight by 2015, could be 30 per cent. Even so, this would lead to increased tonnages of intercity freight on the Pacific Highway - of about 7 million tonnes in 2015 using the above cited BTRE Info Paper.

However, rails modal share of intercity freight on this corridor would be even higher if the alignment was improved by a series of rail deviations. Fewer, rather than more, heavy trucks on the Pacific Highway would have significant road safety and other benefits.

16. The Committee's attention is drawn to a November 1998 report of the Public Works Committee of the NSW Legislative Assembly entitled *The Tilt Train.* This report gives particular emphasis to the NSW interstate mainlines. Whilst it refrains from commenting on the Speedrail proposal, it took the view that the use of tilt trains without a track upgrade would not be appropriate. In this regard, recommendations included: *That the NSW sections of the Sydney - Melbourne and Sydney - Brisbane railway line should be aerial-surveyed, mapped, and computer formatted to improve knowledge of existing track alignments and to allow for proper planning of track deviations* .

A full Cost Benefit Analysis for upgrading the Sydney - Melbourne and Sydney - Brisbane corridors to Fast Freight Train standards, with clearance for double-stacked containers, was also recommended. In such analysis, the Committee held that two methodologies should be used, one with commercial rates of return only, and, the other encompassing wider economic, social and environmental benefits.

Appendix C gives more details of options, including the successful Queensland electric tilt trains that started revenue service in November 1998 using tracks upgraded for faster and

heavier trains. Victoria is also getting Regional Fast Rail with track upgrades (including at least one major deviation). NSW people are expected to use 20 to 25 year old XPTs running on track with 'steam age' alignment. Or, if they are not flying, to drive on highways with increasing numbers of heavy trucks.

MATTERS NEEDING MORE ATTENTION IN THE MOORLANDS TO HERONS CREEK EIS

17. As noted in the EIS, are under NSW legislation, the principles of Ecological Sustainable Development are required to be addressed. They include the application of the 'polluter pays' principle.

The Australian Transport Council's Guidelines Assessment Methodology Working Group 2004 NATIONAL GUIDELINES FOR TRANSPORT SYSTEM MANAGEMENT IN AUSTRALIA note that external costs should be included in project assessment and give default values for air pollution from articulated trucks in urban areas, including rural towns, of 0.87 cents per net tonne km.

The Bureau of Transport Economics (1999) Working Paper No 40 *Competitive Neutrality between road and rail* discussed external costs, noting inter alia, the costs of air pollution from articulated trucks in non urban areas at about 0.01 cents per net tonne km. More recent publications of the Bureau of Transport and Regional Economics give data suggesting that the health costs from air pollution from articulated trucks in non urban areas as about 0.13 cents per net tonne km.

As part of a National Interstate Track Audit commissioned by the Australian Rail Track Corporation (ARTC - 2001) Booz•Allen & Hamilton (Appendix A page 24) noted *'...six external cost items of noise pollution, air pollution, greenhouse gas emissions, congestion costs, accident costs, and incremental road damage costs'* .

Although road vehicle operators using petrol pay an appropriate de facto externalities charge through fuel excise without rebates, following introduction of the New Tax System in 2000, the operators of heavy vehicles were granted conditional rebates for the use of diesel, which have since been further extended to effectively require no payment of external costs (cf

about 20 cents per litre prior to 2000). Thus, the polluter pays principle is not being applied to the operation of heavy trucks on the Pacific Highway.

Incidentally, a quick reading of the EIS did not show any reference to the Australian Transport Council's Guidelines Assessment Methodology Working Group National Guidelines for Transport System Management in Australia. These Guidelines were released in December 2004.

18. It is suggested that the issue of road pricing for heavy trucks is relevant to assessment of major highway projects. In any event, the issue is receiving increasing attention (eg COAG). The Australasian Railway Association's (2004) infrastructure policy, inter alia, called on Government to *"review infrastructure funding and access pricing methodologies to remove inequities between road and rail..."* The Australian Trucking Association in 2004 maintained that *"The industry more than pays for its attributed share of road costs"* whilst the Australian Financial Review (2004) notes, inter alia, that full cost recovery from trucks *"... would probably require the commonwealth and state governments to brave a deafening blockade of their respective parliament houses."*

The BTRE (2003 *Land transport infrastructure pricing: an introduction*, page 2 of summary), and the National Transport Commission (NTC) in 2004, suggested that with present arrangements the heaviest vehicles achieve only 90 per cent recovery whilst there is over-recovery of costs from rigid trucks so that *"Current heavy vehicle infrastructure pricing arrangements achieve the objective of recovery of aggregate attributed costs, including capital costs (108 per cent)."* However, this BTRE finding is not supported by earlier work of the Bureau of Transport Economics (BTE -1988 - *Review of road cost recovery*) that found during 1985-86, articulated truck operations had a resultant under-recovery of road system costs of $1283 million.

A more balanced position was given by the BTE (1999, page xi) as follows *"Under the current road user charging system, trucks overall are undercharged for their use of the road system. Moreover, larger more heavily laden vehicles and those travelling larger distances are charged the least (per tonne kilometre) while smaller, less heavily laden vehicles and those travelling shorter distances cross-subsidise them."* The BTE (1999, p 58) also suggested

that *"Mass-distance based road use charges offer greater scope to reflect the avoidable cost of heavy vehicle road use."*

The NTC is proceeding to a third determination of heavy vehicle charges, but is unlikely to use either mass differentiation or distance differentiation in its annual charges for heavy vehicles. This suggests that under-recovery of road system costs from Sydney - Brisbane interstate trucks using the Pacific Highway will continue for some time. Moreover, the third determination of charges will exclude external costs.

19. It is suggested that the Committee may like to take up with the Roads and Traffic Authority the issue of "Polluter pays" in respect to health costs from air pollution from articulated trucks. See also Appendix C which notes that on one set of estimated unit external costs, and, and, an estimated air pollution external cost of $1.45 for each tonne of road hauled intercity freight between Sydney and Brisbane (out of a total of $18.60 for six external costs of accidents, air pollution, noise pollution, greenhouse gas emissions, congestion, and incremental road damage).

20. A requirement of the EIS is that it addresses, inter alia, a benefit cost ratio (BCR) of the proposal. Although a BCR of 3.5 is cited, with some of the inputs (in Table 6.12 including a cost of $223 million for the project over 5 years, a 7 per cent discount rate, NPV maintenance savings of about $10 million, Vehicle operating cost savings $42m, travel time savings $443m and accident cost savings $12m) a number of questions appear to remain.

Much more information (than given either on the page or two containing Table 6.12 or the brief mention in Chapter 17 on Economic Benefit) is needed to assess how the high BCR of 3.5 was obtained. The information that would be helpful would include the value of travel time savings for various users of the highway, assumption on traffic volumes (including heavy vehicles) for each of the years (2006 to 2040), how the Vehicle Operating Costs were worked out, and how the reduction on road accident costs has been calculated.

21. Chapter 17 on Economic Benefits has a section on implications for Ecological Sustainable Development. This is less than one page (17.7). Again the treatment appears very light. Also notable is the lack of any discussion whether the proposed expenditure of $223

million would be better invested in other road projects, or even in the context of integrated transport, in North Coast Rail Deviations.

22. The Committee is asked to inquire of the Roads and Traffic Authority will ensure that any shortcoming's in the EIS for Moorland to Herons Creek be addressed in the Representations Report, and that full attention be given to user pays and polluter pays principles in other proposed upgrades of the Pacific Highway.

23. In the case of Moorland to Herons Creek, the least that can be done is to address the scope for a shared road and rail corridor as above, and that subsequent EIS's for Pacific Highway projects should fully explore the potential for shared corridors.

OTHER MATTERS

24. Failure to upgrade the NSW Short North line between Hornsby and Broadmeadow will also contribute to growing congestion on the Sydney to Newcastle freeway.

25. The Committees attention is drawn to the Australian Transport Council's Guidelines Assessment Methodology Working Group 2004 National Guidelines for Transport System Management in Australia.