Att. Director-Infrastructure Projects
Department of Planning and Environment
Application number SSI 13_6136
Major Projects Assessment
GPO Box 39
Sydney NSW 2001
11 September 2014

Dear Sir,

Submission about NorthConnex

1. Comments about the integrity of the assessment process administered by the Department of Planning and Environment (DP&E)
   .
2. Traffic analysis.

   2.1 AECOM attempts traffic analysis to justify NorthConnex

3. Risk assessment for motor accidents

4. Legal obligations of the Department of Planning and Environment in assessing submissions

5. Comment on the certification of the EIS.

6. The financial reality of Transurban, the NorthConnex proponent

7. Concluding remarks

Attachment (1) Publication: "*Political Road Planning in Australia".(*2014)

Attachment (2) "*Bias and predetermination in road traffic modelling. The case of the F3 to Sydney Orbital Link".* (2006).

This submission gives comprehensive reasons for rejection of the project

Please acknowledge receipt of this document within 14 days. Please provide information about its assessment and identify the person(s) who carried out the assessment and their qualifications to do so.

Yours faithfully,

Dr John L Goldberg
Former Honorary Associate
The University of Sydney
lgoldber@bigpond.net.au

1. **Comments about the integrity of the assessment process administered by the Department of Planning and Environment (DP&E)**

You have stated that:

"We value your comments and welcome all interested parties to make a submission to the D P &E on NorthConnex".

This statement cannot be accepted at its face value. [redacted]

[redacted] DP &E accepted the [redacted] cost benefit analysis for the M2 Upgrade of the Transurban Group against the peer reviewed analysis that the author provided[1]. I invite DP&E to inspect the operation of the widened M2. In peak periods traffic slows and does not flow freely although Transurban predicted travel time savings at least 10 times greater than shown in the author's analysis. The details of this Transurban incompetence have been published by the Productivity Commission (www, pc.gov.au) as an example of the misuse of CBA. This is the practical outcome of a wrong decision made by DP &E which has had financial consequences: $550m of investors' money has been squandered for no advantage.

In the case of the ETTT (Epping to Thornleigh Third Track), DP &E claimed to have "carefully considered"[2] the economic case [redacted] The author subsequently showed that the Deloitte CBA was false and misleading. The supporting analysis was published by the Productivity Commission (www.pc.gov.au) and will remain on its website in perpetuity. This [redacted] has economic consequences. The correct analysis shows that it is actually cheaper to send freight by road than to use the ETTT- enhanced rail system, which in any case has limited capacity. This result suggests that DP&E needed assistance from a person competent in econometrics to properly assess the application.

Here is another example of a questionable DP &E statement:

[1] Goldberg, J.L. (2010) Proceedings of the Australasian Transport Research Forum, Canberra.

[2] Letter to the author [redacted] The exact words were: *"I can assure you that the Department carried out a rigorous merit based assessment of the application. The Department's assessment carefully considered all relevant matters associated with the project including the economic aspects of the proposal"*

"NorthConnex will deliver significant benefits to local communities…"

How can this statement be believed when the EIS does not even have a cost-benefit analysis? Without a CBA it is impossible to tell the magnitude of the benefits. For example, will there be savings in travel time?

DP &E proclaims that NorthConnex has the support of the Australian government. It displays the Australian coat of arms alongside the emblem of Transurban. The reality is that the National Infrastructure Co-ordinator carried out a cost benefit analysis of NorthConnex in 2012 and found that it was uneconomic. This was not revealed in the EIS. The situation created by this finding was resolved by eliminating the requirement for a CBA in the Director-General's list. This omission [redacted] must raise additional doubts about the assessment process.

DP &E has declared NorthConnex an SSI without justification as SSIs have to be economic unless DP &E has changed the rules. How can an "unsolicited proposal" by a toll collector be transformed into infrastructure of "State Significance"?

2. Traffic analysis.

Traffic forecasting in Australia has been a comprehensive failure. Those responsible for the large financial losses involved are now facing class actions. AECOM, which carried out the forecasts for NorthConnex is also facing a class action for $144m as a result of the financial collapse of the CLEM7 tunnel in Brisbane. The CLEM 7 tunnel traffic was modelled using the well known cube voyager TRIPS software.

However, this modelling was a cover story because it did not produce the cash flow necessary to satisfy investor expectations. [redacted]

Another example of a failed project is provided by the Brisconnections Airport Link. [redacted][4]
The financial collapse of this tunnel was forecast by the author as described in the Brisbane Courier Mail on 12/11/12. The ABC (Steve Austin) also interviewed the author on 612 Brisbane on 12/11/12. It is suggested that AECOM and DP&E

[3] See The Courier Mail . September 03, 2010 *"Experts say Clem7 tunnel was doomed to fail"* The article describes some of the author's investigations which led to the prediction of corporate collapse.
[4] See submission148 to the Senate Inquiry into ASIC. The author used probability theory to test the hypothesis that the equity dividends promised to investors were statistically correlated with the traffic forecasts. The correlation coefficient (Pearson R) was 96%, leading to acceptance of the hypothesis about the origin of the forecasts.

representatives listen to this interview to gain insights into how disreputable traffic forecasting has become in Australia. ARUP, who carried out the forecasts for Brisconnections, is now facing a class action for $450m.

2.1 AECOM attempts traffic analysis to justify NorthConnex.

Traffic "modelling" using the Cube Voyager software also provides the cover story for NorthConnex as it did for the CLEM 7 tunnel but the aim is different. Whereas, traffic induction[5] would have been welcomed in the CLEM7 as it would have increased the toll revenue. In the case of NorthConnex AECOM has seen fit to deny its relevance.

The reason for denial is fairly obvious. NorthConnex is being presented as a solution to traffic congestion. Traffic engineers would realise that the proposed NorthConnex tunnel is nothing more than a bypass of Pennant Hills Road. However, it acts to increase road capacity in a congested network and therefore induces traffic and acts to increase congestion. As the author has shown in the attached paper on road planning, traffic flow is similar to fluid flow in a network of pipes. Any void in the network will be filled.

The selling point for NorthConnex is the removal of 5000 vehicles per day from Pennant Hills Road. A check on the traffic numbers provided shows that if this figure is correct then this will occur in 2029 not 2019. This ten year delay from the opening year was not revealed in the EIS or in any public forum.

The peak heavy vehicle traffic in the tunnel in 2029 is shown in the EIS to be 1350 (1500 over a full day).This leaves 3500 heavy vehicles unaccounted for. AECOM attempts to account for these by appealing to the use of the ETTT- enhanced northern rail corridor. This usage is supposed to assure that 200 000 heavy vehicles will be moved off the roads in the 15 years up to 2029.

However, far from accounting for 3500 missing vehicles, it accounts for only 37 on a daily basis. Because of this huge discrepancy in traffic numbers, the possibility of a major flaw in the traffic analysis or even the relevance of this analysis must be questioned.

The following questions need to be answered by AECOM

Are there any origin-destination surveys that would account for the missing vehicle trips? If not then the entire case for NorthConnex collapses.

AECOM claims to have generated a traffic flow model and calibrated and validated it. In order to validate the model it is required that the model output produces the traffic flows and their distribution among cars and heavy vehicles in the tunnel link which were not part of the data used to generate the model.[6]

[5] See the attached published paper (1) by the author. Note the reference to Litman (2009).
[6] See the author's paper on Bias and Predetermination (2006) Attachment (2)

How then can the model be used to predict tunnel usage and the ratio of heavy vehicles to total traffic?

[redacted]

Was AECOM able to account for the fact that the RTA SCATS monitors and the road surface monitors only provide vehicle counts without regard to vehicle type?

What was the precision of AECOM's traffic count results?

On the assumption that the AECOM traffic forecasts are meaningful, the author has included below an analysis based on the findings in the EIS.

Summary analysis of heavy vehicle traffic volumes

Refer to EIS Vol. 2 tables 8.1 (p175), 8.2 (p176) and 8.3

Period (2019)	status	Total heavy vehicles
AM peak hour	Without project	5420 (1)
AM peak hour	With project	3670 (2)
PM peak hour	Without project	4490 (3)
PM peak hour	With project	2450 (4)

Period (2029)	status	Total heavy vehicles
AM peak hour	Without project	6980 (5)
AM peak hour	With project	4660 (6)
PM peak hour	Without project	5660 (7)
PM peak hour	With project	3410 (8)

NB. The total HV in column 3 in each table are the sums of all the HV in the 11 road segments between N Rocks Road and the Pacific Highway.

In 2019, the total traffic (without project) = 5420 + 4490 = 9910 (1+3)

In 2019, the total traffic (with project) = 3670 + 2450 = 6120 (2 + 4)

It follows that the net traffic removed in 2019 (about the year of opening) = 9910-6120 = 3790. (This is the peak period HV traffic not the 24 hour HV traffic)

In 2029, the total traffic (without project) = 6980 + 5660 = 12640 (5 + 7)

In 2029, the total traffic (with project) = 4660 + 3410 = 8070 (6 + 8)

Thus the traffic removed from Pennant Hills Road in 2029 = 12640 – 8070 = 4570.

This is not quite the 5000 vehicles per day that AECOM is claiming. The reason is that there is a conversion factor to get from peak to AADT. Some idea of this

conversion factor can be deduced from the two graphs of Figure 3-10. The peak is very broad and the HV movements extend over about 17 hours.

If AECOM is claiming 5000 AADT for HV and we have deduced (from their figures) 4570 for the peak then the conversion factor for HV is 5000/4570 = 1.094. In other words add about 10%

The main deductions are:

The 5000 figure applies only to the year 2029 not 2019.

Moreover if we look at Table 8.3

The total "in tunnel" HV traffic in 2019 = 1160 with project

The total "in tunnel" HV traffic in 2029 = 1350 with project.

So where did all the HV disappear to as 5000 on Pennant Hills Road reduces to 1350 in the tunnel in 2029?

AECOM has attempted to attribute the missing vehicles to a transfer of these vehicles to rail (see main text)

Unless the inconsistencies in this analysis are explained [redacted]

3. Risk assessment for motor accidents

It is stating the obvious for AECOM to declare that a well constructed motorway will minimise accidents. Nevertheless, where is the quantitative risk assessment? The RTA has comprehensive data of accidents on Pennant Hills Road collected over many years which were not referred to by AECOM. If AECOM has knowledge of statistics and probability then it may be able to evaluate risk. The author refers AECOM to his ATRF 2010 paper as an example of the methodology required for this evaluation.

4. **Legal obligations of the Department of Planning and Environment in assessing submissions**.

D P &E needs to recognise and discharge its obligations under the Independent Commission Against Corruption Act 1988. To explain what this means: pursuant to Part 3, section 8(1) (d) of the Act,

Corrupt conduct

"Involves the misuse of information or material that he or she has acquired in the course of his or her official functions whether or not for his or her benefit or for the benefit of any other person."

So it is suggested that the importance of this matter be conveyed to appropriate members of the planning bureaucracy, involved in assessment. A repetition of the assessment practices that were used in the case of the M2 upgrade and the ETTT cannot be accepted.

5. Comment on certification

[redacted] have certified, inter alia, that "to the best of their knowledge" the information contained in the environmental impact statement is neither false nor misleading. It is suggested that this declaration be not accepted for the following reason.

The use of the ETTT to reduce congestion in the tunnel is misleading because the daily removal rate is too small to affect the outcome. [redacted] the fact that no one would be likely to have checked the figures. [redacted] s.283 of the Regulation 2000 to the E P and A Act 1979 which makes it an offence to mislead in any document connected with development consent.

6. The financial reality of Transurban, the NorthConnex proponent

The Transurban Group had total liabilities of $8.9 billion as at 30 June 2014. It is seeking to spend $2.65 billion which includes $810m of taxpayer's money on an unworkable non-solution to a traffic problem. Transurban's assets are said to be worth $14.87 billion but 70% of these assets are intangible and unrealisable in the event of corporate collapse. In the author's published evidence to the Senate Inquiry into ASIC. (Submission 148.1-supplement), the security price of Transurban was shown to have been manipulated .This document has full parliamentary privilege granted to the author by the Senate Economic References Committee.

The alleged manipulation involves gradually increasing the number of securities on issue and selling the increase to investors. In this way, without adequate asset backing for its securities, the sale produces so-called "free cash". Transurban is thus

able to pay distributions ($418m) to investors whereas its profit was only $252m. Transurban is allegedly running a sophisticated form of Ponzi scheme based on increasing the number of securities on issue.

Transurban has a particularly stressed balance sheet and the problem is that the taxpayer may be called upon to support any losses if the NorthConnex project fails. Not only is Transurban involved but also the Canadian Pension Plan and the Queensland Investment Corporation as the two other contributors to the M7 Westlink equity funding.

7. Concluding remarks

The author has concluded that NorthConnex is a project without value. A convincing case for granting planning permission has not been provided by the traffic analysis [redacted] We already have the evidence of this approach [redacted] in the failed CLEM7 tunnel in Brisbane. [redacted]

In the case of NorthConnex, [redacted] one set [redacted] provided by the irrelevant use of traffic forecasting software. This is the same approach that [redacted] as described above for the CLEM7 tunnel. The second set is quite novel and involves the ETTT railway whose payload is going to ensure freedom from congestion in the NorthConnex tunnel. This initiative has been shown to be false, misleading and irrelevant. Was the claimed removal of 5000 heavy vehicles from Pennant Hills Road really predicted by modelling? Please provide information about all steps used in the process.

The failure to properly address the road safety issue should alone disqualify the project from consideration.

It is concluded that NorthConnex has been proposed and supported for political reasons which include creating the illusion of free flowing traffic, and to create for the toll collector Transurban an undeserved aura of an infrastructure provider of substance. It will also be a financial disaster with consequences for the taxpayer and a danger to the communities who have to tolerate the toxic environmental impact it will create.

We should be wary of the “consent condition” manoeuvre of the D P &E. In the case of the ETTT the 87 consent conditions are largely meaningless. These conditions are nothing more than a bureaucratic formula without substance that can literally allow

any development, however environmentally degrading it may be. [redacted] If D P &E gives planning consent for the project on this basis, it will be an alleged evasion of responsibility under the EP&A Act 1979, its Regulation 2000 and the ICAC Act 1988.

To help the planning bureaucracy and AECOM understand the matters involved in road planning, a copy is attached of the author's recent paper (2014) published in the Brisbane Journal "Kings Counsel". [redacted] needs to heed the importance and significance of traffic induction as it affects this project. An earlier paper (2006) by the author on the F3 to Sydney Orbital Link is also attached.

This submission has been prepared in the public interest pursuant to Part 4 (1) (12) of the ICAC Act 1988. It is to be expected that the assessment by DP&E will also be in the public interest.

[redacted]