Impact of the WestConnex project

Submission by
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Introduction

Terms of reference for the Inquiry are:

(a) the adequacy of the business case for the WestConnex project, including the cost-benefits ratio

(b) the cost of WestConnex project, including the size and reasons for overruns

(c) consideration of the governance and structure of the WestConnex project including the relationship between Sydney Motorway Corporation, Roads and Maritime Services, the Treasury and its shareholding Ministers

(d) the compulsory acquisition of property for the project

(e) the recommendations of the Audit Office of New South Wales and the Australian National Audit Office in regards to WestConnex

(f) the extent to which the project is meeting the original goals of the project as articulated in 2012

(g) the relationship between WestConnex and other toll road projects including the Sydney Gateway, Western Harbour Tunnel, F6 and Beaches Link

(h) the circumstances by which WestConnex and the Sydney Gateway were declared to be separate projects in 2017

(i) the cost of the project against its current valuation as determined through the sale of the Sydney Motorway Corporation and whether it represents a good investment for NSW taxpayers

(j) any other related matter.

This submission addresses aspects of:

(a) the adequacy of the business case for the WestConnex project, including the cost-benefits ratio

(f) the extent to which the project is meeting the original goals of the project as articulated in 2012, with particular reference to the St Peters Interchange

(h) the circumstances by which WestConnex and the Sydney Gateway were declared to be separate projects in 2017

(i) any other related matter - specifically, whether the approval of the M4M5 EIS was good faith, and if not, whether it reaches the bar for maladministration or not.

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(a) the adequacy of the business case for the WestConnex project, including the cost - benefits ratio

The stated purpose of the strategic business case was to "confirm for the Government that WestConnex remains fit for purpose, economically viable, and financially deliverable."

Despite the length of the documents (about 620 pages in all), much of the data provided is high level, there is a lot of detail missing, and some key details are redacted.

The projected benefits are questionable, and the ability to ‘value capture’ those benefits is questionable.

The Updated Strategic Business Case explicitly acknowledges that WestConnex is not economically viable and was known not to be economically viable.

Viability Gap

The Updated Strategic Business Case explicitly acknowledges that WestConnex was not economically viable and was known not to be economically viable:

> "A financial model has been developed demonstrating the viability gap and exploring options for, and impact of, different funding solutions"
> [Page 56, Updated Strategic Business Case]

The expression 'viability gap' is not explicitly defined in the document but the usual definition is the difference between funding that can be raised through user charges and the commercial cost of the project.

We recommend that the Inquiry seek out a copy of the modeling of the viability gap, as mentioned on page 56 of the Updated Strategic Business Case, and we also request that the modeling be made public.

Net Benefit or Lack Thereof

We recognise that a project may not be economically viable but still be worth supporting, because of the net benefits.

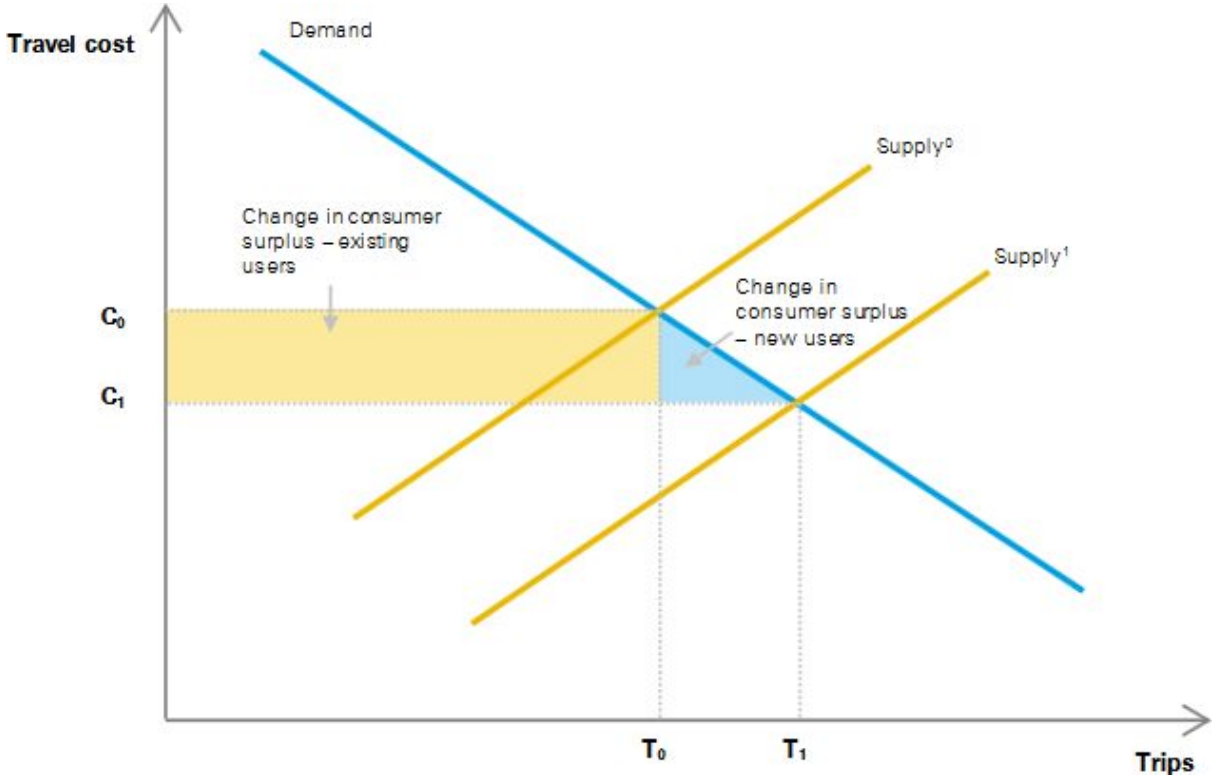
The business case includes a projection that, taken at face value, would indicate that there is net benefit to the project.

However, the business case also includes an Appendix that, upon examination, indicates that there is **no** net benefit to the project.

Technical Paper 2, KPMG's "WestConnex Full Scheme: Economic Appraisal", includes an appendix titled "Consumer surplus theory".

The appendix is dry reading, but the economics are sound.

The appendix explains that when a product offering increases in value, this will benefit all existing users, and that it will also benefit some new users for whom it is now worth using whereas previously it was not.



By the same logic, it can be understood that a fall in value will result in a fall in patronage.

The Strategic Business Case forecasts that under the new tolling regime, traffic levels will fall. This show that there has been a reduction in value.

Either the estimate that there are benefits is wrong, or the estimate that patronage will fall was wrong, or the logic behind consumer surplus theory is wrong.

It seems unlikely that the logic behind consumer surplus theory is wrong.

Hindsight has shown that patronage levels have dropped on the M4 since tolling began.

It therefore follows that the supposition that there are net benefits to motorists is wrong and any increase in benefit is more than offset by the increase in cost, resulting in a net reduction in benefit.

Value Capture and Impact of Pricing on Customer Behaviour

According to the business case, the price of tolls, being a transfer payment, does not impact net benefits.

However, this assumes that the price of tolls does not change behaviour.

In the real world, if price to the consumer exceeds value to the consumer, the consumer will not purchase.

Even though the net benefit to the provider (from the transfer payment) would exceed the net cost to the consumer (from the time saving, minus the transfer payment), if the cost of of the transfer exceeds the benefit of the time saving the consumer will not complete the purchase and the potential benefit will not be realised.

Put simply, setting tolls too high will reduce usage of the WestConnex, and thereby reduce any benefit to be gained from it.

The question then is, is there a price that is high enough to cover the costs, but not so high that it discourages the average commuter from using WestConnex. On the numbers in the business case, there is not.

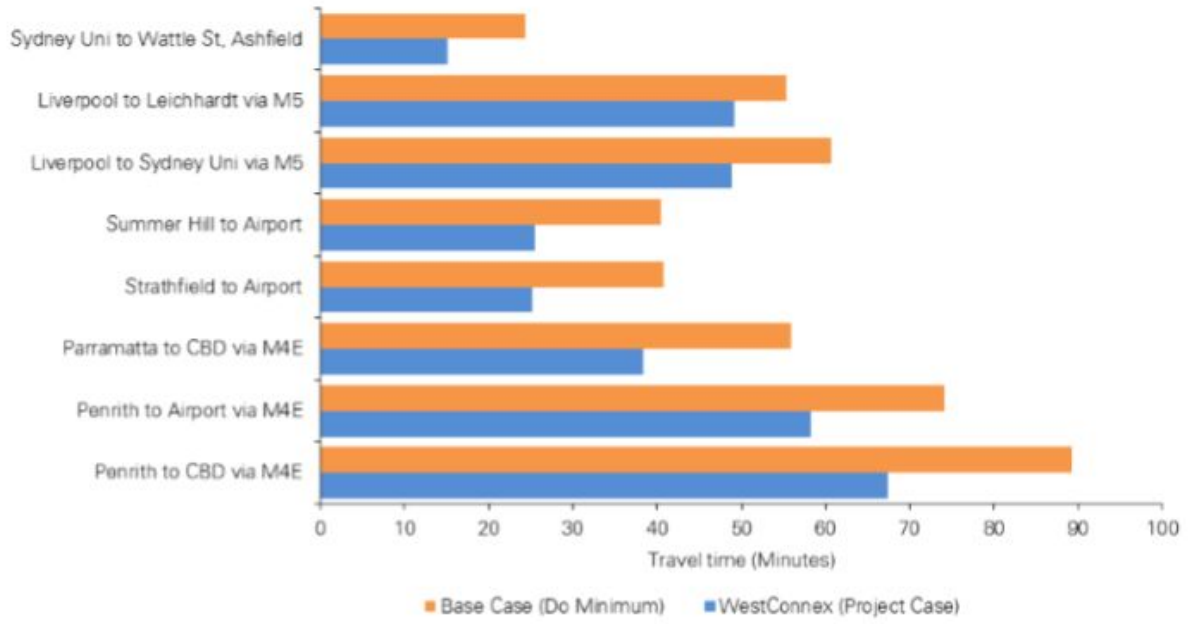
The Value of Travel Time Saved is one of the largest forecast benefits of the WestConnex, accounting for over $13B of the forecast $21B in benefits.

According to the WestConnex Updated Strategic Business Case, commuters have a VTTS of $21.32/hour - if they are rational, they should be prepared to pay $21.32 to avoid sitting in traffic for one hour.

According to the numbers in the Updated Strategic Business Case's Technical Paper 2, commuters may be paying up to $80 in tolls for every hour they save – almost 4 times as much as the Business Case say they should be prepared to pay.

The Updated Strategic Business Case predicts savings of between 6 and 22 minutes. The larger savings are only possible on the longer trips, such as Penrith to CBD, where commuters will pay $8.27 to save 22 minutes, a cost of $22.55 for every hour saved. Shorter trips have smaller savings – as little as 6 minutes for Liverpool to Leichhardt, for which the cost is still $8.27, each way, meaning motorists will be paying $82.68 for every hour saved.

Chart 3: Change in modelled travel times in selected vehicle corridors (AM Peak 2031), WestConnex



Source: WestConnex Delivery Authority (2015), WestConnex Traffic Analysis - Traffic Patronage Report, January.

Of the eight trips profiled in the business case, only one has a price that commuters are going to be willing to pay – Summer Hill to Airport. With tolls set to rise at 4% a year, even this trip will soon cost more than commuters are prepared to pay.

Only a minority of drivers will be motivated to pay these prices, the so-called business travellers.

The largest benefits accrue to 'business travellers', who have an estimated VTTS (Value of Travel Time Saved) of $53.60 per hour. Therefore, business travellers should be prepared to pay a higher rate than commuters are prepared to pay, but business travellers will not be charged at a higher rate than commuters are prepared to pay, unless commuter traffic is to be forgone entirely.

Ordinary commuters have an estimated VTTS of $21.32, although there are reasons to believe that the actual VTTS may be much lower, as shown earlier. If commuters are charged more than their VTTS (and it must be noted that this does appear to the be plan, as shown earlier), then commuters will not use the WestConnex, representing a net loss of Benefit, given that commuters are currently enjoying free use of the M4 and large parts of the M5. This means that a theoretical maximum of 40% of the Benefit enjoyed by Business travellers can be captured.

All of this is assuming that the forecast time savings and forecast value of travel time saved are correct.

Research suggests that they are not.

Value of Travel Time Saved or Willingness To Pay

The use of VTTS (Value of Travel Time Saved) must be questioned.

Professor Hensher, an expert in transport forecasting, has estimated that commuters having a willingness to pay (WTP) of between $6 and $12 per hour.
["Sydney motorists unwilling to pay for more toll roads: study" http://www.smh.com.au/nsw/sydney-motorists-unwilling-to-pay-for-more-toll-roads-study-20151110-gkv5b3.html]

The failure of past toll roads supports the supposition that WTP is much lower than the forecast VTTS, indicating either that consumers are irrational, or that there is a failure somewhere in the assumptions behind VTTS.

We encourage the Inquiry to determine if WTP (Willingness To Pay) was considered in any modelling and what was the result, or if WTP was not considered, why was it not considered.

We ask the Inquiry to consider recommending the use of WTP instead of VTTS for future transport infrastructure project assessments.

Percentage of Business Trips higher than T4NSW recommendations

Business trips are assumed to be almost 24% of all trips; Transport for NSW's Principles and Guidelines for Economic Appraisal of Transport Investment and Initiatives recommends assuming that 8% to 12% of trips will be business trips.

Business trips are approximately three times more valuable than other trips,meaning that the estimate for the total value of travel time saved is 10% to 13% higher than if Transport for NSW recommendation were followed.

We encourage the Inquiry to investigate why the Business Case did not follow Transport for NSW's recommendation that buisness trips be assumed to be 8% to 12% of total trips.

We encourage the Inquiry to seek to have the Business Case revised, accepting Transport for NSW's recommendation that buisness trips be assumed to be 8% to 12% of total trips, and with a justification for the level chosen within this range.

Costs not considered

A wide range of benefits are claimed, for example, a reduction in carbon emissions attributed to supposedly smoother flowing traffic. However, these benefits are considered without considering the associated costs. For example, concrete is a major contributor to carbon emissions, but this is not considered as a cost of the project, nor are the additional emissions attributable to induced traffic.

Another set of costs that are not considered are the negative health impacts, not just the damage done to residents by vehicle exhausts, but also the well documented negative health impacts experienced by motorists when compared to other commuters.

We ask the Inquiry to consider recommending consideration of Wider Economic Costs for future transport infrastructure project cost-benefit assessments, perhaps using a model similar to the model used for Wider Economic Benefits.

Misattribution of Non-User Benefits

An examination of the available data indicates that some 72% of the claimed User Benefits are not actually User Benefits, but are instead Non-User Benefits.

The value of travel time saved by users in the 2015 Business Case Tech Paper 2, KPMG WCX Economic Appraisal, is based on 115,000 hours saved per day.

The 2015 Business Case Tech Paper 1, Traffic report Final, forecasts travel time savings of only 110,000 hours a day, but of that 110,000 hours per day, only 30,000 hours a day are for motorway users. The other 80,000 hours a day accrue to for non motorway users.

30,000 hour per day is only around 27% of the 115,000 hours per day that Tech Paper 2 uses when calculating User Benefits.

Tech paper 1 provides the following estimate of hours spent on Motorways per day, with and without WestConnex, showing a decrease of 30,000 hours a day in VHT (Vehicle Hours Traveled) by users of Motorways:

Table 1-3 VKT and VHT results of Motorway versus Surface Roads (rounded to the nearest thousands)

Location	Avg weekday VKT (000's)		Avg weekday VHT (000's)	
	'Do minimum'	WestConnex	'Do minimum'	WestConnex
Motorway	29,600	30,700	570	540
Other	90,500	90,000	3,980	3,900
TOTAL	120,100	120,700	4,550	4,440

In the 2015 Business Case, Tech Paper 2, the total value of travel time saving is provided, including both the present value and also the total undiscounted VTTS:

Table 5-2: User benefits of the WestConnex scenario

User Benefits	Discounted (Present value)	Undiscounted (Total value)
Travel Time savings		
Cars – Privately registered, Business use[13]	$4,305.9m	$18,303.4m
Cars – Privately registered, Commuter	$1,687.6m	$7,290.7m
Cars – Privately registered, Other	$991.8m	$4,541.3m
Light Commercial Vehicles	$3,389.3m	$14,094.9m
Heavy Commercial Vehicles	$2,528.3m	$10,895.1m

The 'value of travel time saving per hour' is provided in the 2015 Business Case:

Table 5-4: Value of travel time savings parameters ($2015)

Vehicle Type	VTTS ($ per vehicle hour) TfNSW (2015 Q1) Values
Cars – Privately registered, Business use	$53.60
Cars – Privately registered, Commuter	$21.32
Cars – Privately registered, Other	$21.32
Light Commercial Vehicles	$37.83
Heavy Commercial Vehicles	$69.57

Dividing the total value of travel time saved ($12.9B) by the weighted average value of travel time gives us an estimate that the total travel time saved by users is 115,000 hours . (For full details of the calculation, see Appendix 2 of this document).

The saving that Tech Paper 1 says should have been used, 30,000 hour per day, is only around 27% of the 115,000 hours per day that Tech Paper 2 used has used.

A difference of this magnitude suggests, at best, negligence.

It appears that Tech Paper 2, either accidentally or deliberately, has calculated the benefit to users based on the total time savings forecast, rather than only on the user time savings forecast , thereby overstating the foreseeable User benefits by a factor of nearly 4.

We ask the Inquiry to determine the implications for the viability of Stage 3, if User Benefits have been overstated by a factor of 4, as is suggested by an examination of the figures in the 2015 Business Case's Tech Paper 1.

We ask the Inquiry to determine what instructions were given to KPMG, either formally or informally. In particular, were they tasked with preparing an assessment of the viability of the project proceeding, or were they, even informally, led to believe that they should prepare a justification for the project proceeding.

Questionable Benefits

A decrease of 80,000 hours a day in VHT for non-users demands explanation.

It is not because of a reduction in traffic - the VKT with or without WestConnex are not significantly different. There is no obvious reason that WestConnex should have a halo effect on other roads. If there is any effect it will be that WestConnex will reduce performance of other roads by displacing existing traffic from the M4 and M4 onto other roads, and by putting additional traffic onto the roads around the St Peters and Rozelle.

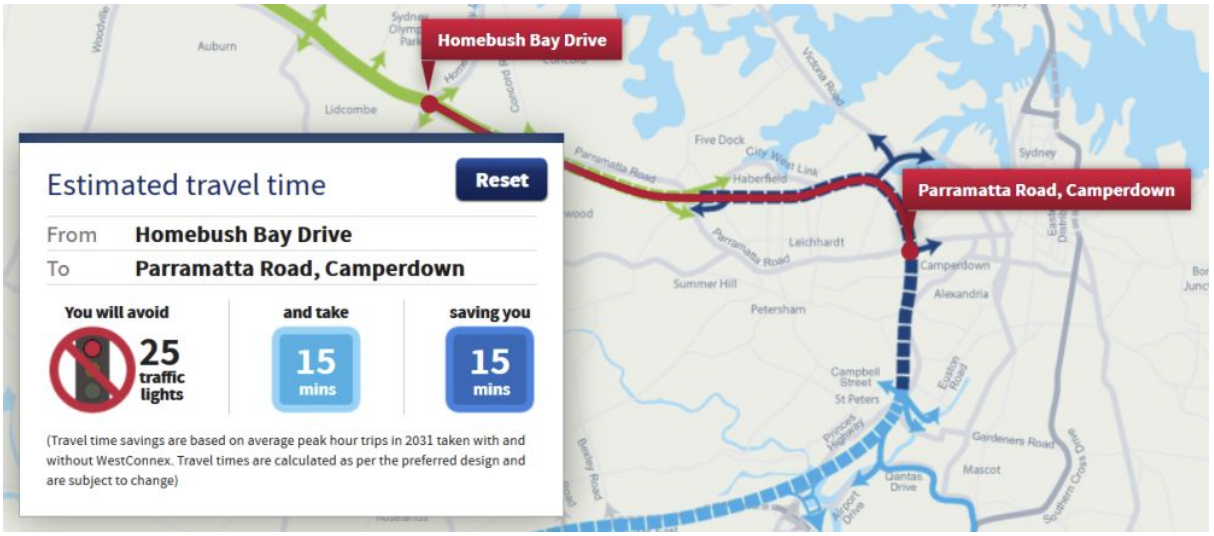
We ask the Inquiry to seek to obtain, examine and publish the modelling behind the forecast Motorway user and Non-Motorway user time savings.

Questionable Savings - Explore the Route

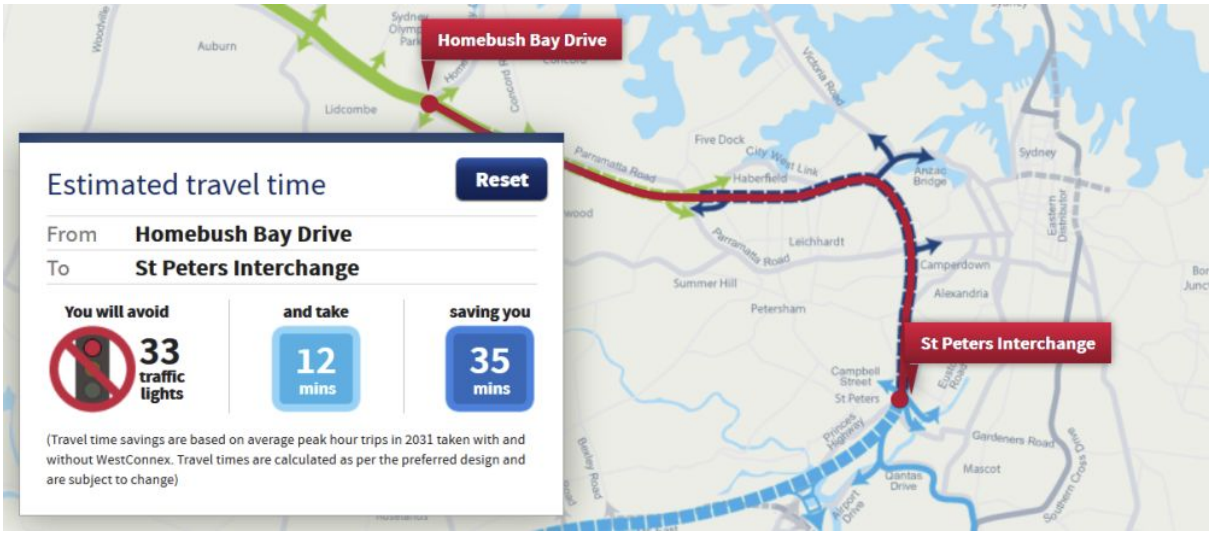
Travel time savings per road segment were at one point available on the "Explore the Route" website.

For example:

- travel time from Homebush Bay Drive to Parramatta Road is apparently 15 minutes:



- travel time from Homebush Bay Drive to Parramatta Road, and then on to St Peters Interchange is apparently 12 minutes:



Observant readers will note that the second trip is three minutes faster than the first trip, even though the second trip includes the entire first trip plus several additional kilometers of road.

We recommend that the Inquiry seek out a copy of the modelling for Travel Time Saved, and we also request that the model be made public.

Questionable Savings - Business Travellers

There is reason to suspect that the number of business travellers is overestimated.

Transport for NSW guidelines recommends that Business Travellers be 8% to 12% of the total, but the in the WestConnex Business Case, 24% of travel is Business Travel.

Each hour of business travel is accorded a VTTS of $53.60 per hour, significantly higher value the VTTS for all other vehicles except HCV. By way of example, a value $21.32 per hour is accorded to ordinary commuters.

The estimated present value of travel time saved by Business Travellers is $4.306 billion.

If, for example, Business Travellers are actually 10% of the total, instead of 24%, with a corresponding increase in the number of Commuters, this would represent a reduction of $1.5 billion less value.

We recommend that the Inquiry determine why the percentage of Business Travellers is so much higher than Transport for NSW Guidelines, and why this discrepancy was not reported in the Business Case.

We recommend that the Inquiry seek out a copy of the modelling for patronage levels, and we request that the model be made public.

Separable Benefits

Many of the benefits attributed to WestConnex are completely separable from WestConnex, and could be delivered without delivering WestConnex.

For example, the following were identified as benefits of WestConnex:
- building new bridges over Alexandra Canal to improve local traffic,
- improving cycle ways,
- upgrading drainage to prevent flooding,
- improving bus travel time by converting existing lanes to bus lanes,
- reduce congestion on the M4 and M5 by introducing tolls.

Much of the reduction in congestion is achieved not by building more roads, but through the introduction of tolls. These benefits could have been obtained without widening or extending the current roads.

Congestion could also have been reduced by improving public transport, and there is academic research that suggests that, because of the phenomenon known as induced traffic, improving public transport is actually the only way to reduce congestion.

Connectivity between north and south could have been improved by upgrading existing roads, as documented in alternate proposals generated by the City of Sydney, which would upgrading the A3, also known as King Georges Rd to Centenary Drive (http://www.cityofsydney.nsw.gov.au/vision/changing-urban-precincts/westconnex#ac=hp_d_slider_1_txt_Alternative+proposal+for+WestConnex+stage+3), and EcoTransit.

Separable Revenue

The bulk of the revenue attributed to WestConnex is completely separable from WestConnex and could be obtained without delivering WestConnex.

Numbers are not disclosed, but it is clear that much of the revenue from WestConnex, probably the majority of revenue from WestConnex, will come from vehicles using the existing M4 and M5.

There are no technical reasons this revenue could not have been collected without WestConnex, only political reasons, and those political reasons will not be removed by the WestConnex Project.

Revenue that could have been collected from the M4 and M5 should not properly be attributed to the WestConnex. Only additional revenues, above this base level, can properly be considered when considering the economic viability of the project.

We ask the Inquiry to find that revenue that could be collected from existing assets (such as the M4 and M5) should not be considered to be revenue attributable to other sources, including project that expand or extend those assets (such as WestConnex).

Alternatives ignored

There were, and still are, alternatives to WestConnex that would have provided better value for money.

There were a number of alternatives not even identified in the Business Case that were identified in the M4M5 Link EIS:

- “Jobs closer to homes”
- “Restrict parking”
- “Time of day tolling”
- “Transport pricing”
- “ramp metering, variable speed limits and lane use management”
- “re-optimisation” of traffic signal timings
- “capacity constraint”

The EIS said each alternative, on its own, is not sufficient. However, the EIS also established that WestConnex, on its own, is not sufficient.

Section 4.1 of Volume 1A (4-15) says that five alternatives were considered:

- Alternative 1 – improvements to the existing arterial road network
- Alternative 2 – investment in alternative transport modes

- Alternative 3 – demand management
- Alternative 4 – the 'do nothing'/'do minimum' case
- Alternative 5 – development of the M4-M5 Link.

Alternative 1 was dismissed because:

- "improvements to the arterial road network alone, ..., are not a feasible or long-term alternative to the project." (4-16)

Alternative 2 was dismissed because:

- "Public transport improvements alone are … not a viable alternative" (4-20),
- "Rail freight improvements alone are … not a viable alternative" (4-21),
- "cyclist and pedestrian infrastructure alone would not cater for the diverse travel demands within the project footprint that are best met by road Infrastructure." (4-25).

Alternative 3 is dismissed because:

- "Travel demand management changes alone are … not a viable alternative" (4-27)

Because each of the above Alternatives, alone, is not an alternative to the project, the EIS concludes that the project is necessary.

However, the EIS explicitly acknowledges that: the WestConnex project "alone would not be able to accommodate the additional container traffic" (4-23), and recommends that all of the alternatives be pursued.

Section 4.1 of the EIS acknowledges that Alternative 1 would

- "provide incremental change in the efficiency of the road network".

The M5 EIS acknowledges that Arterial upgrades

- "would provide more effective solutions to congested parts of the road network" (4-16).

Alternatives 2 and 3 are advocated for in the assessment of alternative 5, which says:

- "investment in Sydney's strategic road network can be sustainable if complemented by strategies to manage congestion and environmental impacts, and should be undertaken in tandem with investment in public transport and demand management measures." (4-31)

Section 4.3 acknowledges that

- "Travel demand management [would] reduce the impacts of road traffic on Sydney's road network." (4-27)

The EIS did not consider whether all of the above alternatives, together, might have been or might still be an alternative to the project.

The EIS does not estimate either the incremental benefit of each alternative, or the cumulative benefit of all of the alternatives.

We ask the Inquiry to investigate what modelling of alternatives was done, and why such modelling was not included in the business case and EIS.

We ask the Inquiry to investigate to produce or recommend the production of modelling of alternatives to WestConnex.

(f) the extent to which the project is meeting the original goals of the project as articulated in 2012

The objectives of the WestConnex, as stated in 2012, were:

1. Support Sydney's long - term economic growth through improved motorway access and connections linking Sydney's international gateways and Western Sydney and places of business across the city.
2. Relieve road congestion so as to improve the speed, reliability and safety of travel in the M4 and M5 corridors, including parallel arterial roads.
3. Cater for the diverse travel demands along these corridors that are best met by road infrastructure.
4. Create opportunities for urban renewal, improved liveability, public and active transport improvements along and around Parramatta Road
5. Enhance the productivity of commercial and freight generating land uses strategically located near transport infrastructure.
6. Fit within the financial capacity of the State and Federal Governments, in partnership with the private sector.
7. Optimise user pays contributions to support funding in a way that is affordable and equitable.

Over time, there were changes.

For example, in New M5 EIS, the objectives had become:

1. Support Sydney's long-term economic growth through improved motorway access and connections linking Sydney's international gateways and south-western Sydney and places of business across the city
2. Relieve road congestion to improve the speed, reliability and safety of travel in the M5 Motorway corridor
3. Cater for the diverse travel demands along these corridors that are best met by road infrastructure.
4. Enhance the productivity of commercial and freight generating land uses strategically located near transport infrastructure.
5. Fit within the financial capacity of the State and Federal governments, in partnership with the private sector.
6. Optimise user pays contributions to support funding in an affordable and equitable way.
7. Provide for integration with other WestConnex projects and the proposed Southern extension, while not significantly impacting on the surrounding environment in the interim period.
8. Protect natural and cultural resources and enhance the environment.

Objective 1 - Support Sydney's long-term economic growth through improved motorway access and connections linking Sydney's international gateways and south-western Sydney and places of business across the city

The New M5 will not enhance Sydney's economic growth, either through improved motorway access or in any other way. If WestConnex proceeds as proposed, congestion will get worse for most drivers, who are not prepared to pay the tolls required to use the M5 and the New M5.

Furthermore, the EIS recognises only Sydney's two current international gateways, and does not consider Badgerys Creek airport, which, when completed, will be a significant third international gateway to Sydney. Given the operating constraints on Kingsford Smith, Badgerys Creek may one day be the prime international gateway to Sydney. Consultation on the merits of the WestConnex project is incomplete until it considers how best to serve the many travellers and workers who will need to commute to it. Despite the claimed importance of Kingsford Smith and Port Botany, the planned route for the WestConnex does not connect to Sydney Airport or Port Botany. Ultimately, the EIS does not provide evidence it will assist economic growth, or even if economic growth can be assisted by improved motorway access.

The project does not consider whether better value for the tax-payer dollar could be obtained by investing in:

1. improved road and rail access to Port Botany
2. improved public transport between Western Sydney and Sydney's various CBDs
3. improving ring roads in Western Sydney
4. supporting and developing businesses in Western Sydney.

WestConnex fails to meet Objective 1.

Objective 2 - Relieve road congestion to improve the speed, reliability and safety of travel in the M5 Motorway

We note the significant difference between the equivalent objective for the M4:

Relieve road congestion so as to improve the speed, reliability and safety of travel in the M4 corridor, including parallel arterial roads.

Any improvement the WestConnex project makes to the M4 or M5 comes about primarily by moving congestion onto parallel arterial roads. There should be concern about congestion in roads beyond the portals causing traffic to slow including in the tunnel. Local improvements cannot be relied on to address this because of induced traffic, because of growth in local

population, and because the local roads are already bottlenecked well beyond the scope of the analysis performed for this EIS.

Claims by WestConnex that the project will improve speed and reliability depend on the reliability of its approach to traffic modelling an approach that contemporary experts argue is flawed.

Without congestion charging, or similar, the laws of induced traffic mean that increasing road capacity only increases traffic volumes; it does not reduce congestion. Charging for the M4 and M5 without congestion charging on alternate routes will increase, not reduce, congestion on those routes.

The improvements in congestion claimed for the project arise from measures that can be separated from the construction components of the project – the reintroduction of charges for using the road.

Congestion at St Peters

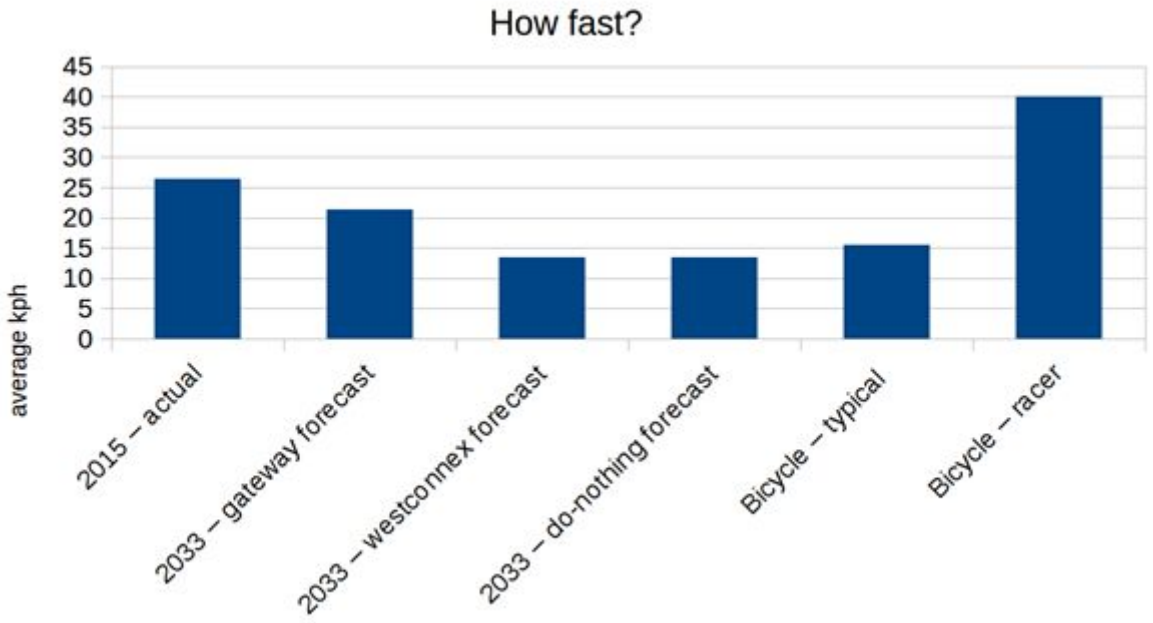
St Peters is one end of the WestConnex. If the roads around St Peters don't work, WestConnex won't work.

The M4M5 Link EIS has traffic numbers for 2015, 2023 and 2033 under different assumptions.

Local traffic speed in 2015 was about 27kph.

With Airport Gateway (if route and budget can be found) speed drops to 22kph by 2033.

Without the Gateway, whether or not WestConnex is built, speed drops to to 12kph:



if you compare the numbers for 2015 (M4-M5Link EIS) and 2012 (M5 EIS) there is almost no change in speed or in the number of vehicles:

> 2012 AM peak 22,000 vehicles; 2015 AM peak 22,080 vehicles.
> 2012 PM peak 21,300 vehicles; 2015 PM peak 21,390 vehicles.
> Average speed 26.4 vs 26.4.

Perhaps the only real difference between 2012 and 2015, is that the number of unreleased vehicles per peak went from 0 to 170. 170 is less than 1% of the total number of vehicles but it does indicate that network is starting to fail - we are starting to see patches of localised gridlock.

Instead of the prediction of more cars, moving more slowly, we are getting increasing numbers of ‘unreleased vehicles’.

This matches what people are telling ARAG - they can't get out of their own driveways and local streets. And it matches what RMS have put in the EIS:

The RMS acknowledge that their forecast exceeds what their own model says is possible:
“the network is forecast to not be able to accommodate the forecast traffic demand.”
“the forecast one hour future demand would exceed the physical road capacity.”

Despite that, RMS still forecast the number of vehicles on the road to increase, massively.

If the RMS models say that our already full roads can still hold a lot more traffic, then the RMS models are broken.

If you have 1% unreleased demand, then maybe, there might be a way to squeeze those cars onto the road, and make things 1% slower.

But not at 4%, and definitely not at 24%.

RMS's computer agrees:

"In the St Peters interchange model area, the demand growth forecast by the WRTM in the 'with project' scenarios caused the operational models to become inoperable ..."
"...peak hour demand was therefore reduced in the 'with project' scenarios..."

RMS admit they reduced demand until the computer gave them an answer.

But RMS don't explain how they 'reduced demand'.

the modelling behind this forecast is incomplete. The modelling does not resolve all 'unreleased vehicles'. An unreleased vehicle is one that could not enter the modelled network because of congestion - it is either stuck in a driveway, unable to exit, or stuck in a queue of traffic at the border of the network.

The presence of unreleased vehicles indicates that the model shows some vehicles are moving while others are completely gridlocked and remain so until the end of peak hour.

In other words, the network is not coping. The EIS acknowledges this:

- "the network is forecast to not be able to accommodate the forecast traffic demand" (H-196)
- "the forecast one hour future demand would exceed the physical road capacity" (H-53)
- "the demand growth forecast by the WRTM in the 'with project' scenarios caused the operational models to become inoperable" (H-53)

In order to make the model 'operable', RMS assumed demand management: "peak hour demand was therefore reduced in the 'with project' scenarios" (H-53).

The EIS (4-27) lists the following examples of demand management:

- Land use planning policies
- increasing the capacity of the public transport network
- integrating urban regeneration around transport nodes
- restrict parking
- 'time of day' tolling
- transport pricing

Each different form of demand management has very different associated costs and benefits. The EIS does not disclose which method of demand management was used in the modelling, or how this will affect the costs and benefits of the projects.

The EIS also does not disclose whether this demand management would reduce usage of the wider WestConnex, and if not, why not.

We ask the Inquiry to determine how demand management was applied, and what implications this has for the wider project

The EIS discloses that growth in demand was reduced by a factor of 0.75 in the AM peak and 0.7 in the PM peak. It is not explained what a growth reduction factor of 0.75 or 0.7 means in this context.

We ask the Inquiry to determine what was meant by growth reduction factor and what what implications it would have for the project outcome if growth reduction is achieved and also if growth reduction is not achieved.

RTA guidelines were that “the percentage of unreleased vehicles must be equal to zero for the base model at the end of the simulation period.” (Paramics Microsimulation Modelling, RTA Manual.)

However, the model presented contains unreleased vehicles, which is to say that only accommodates a proportion of the expected traffic, indicating that either the modelled speeds are higher than the real speeds will be, and/or that there will have to be a higher than modelled level of demand management.

The EIS acknowledges that the With Project scenario is no better than the Without Project Scenario.

The EIS makes the unsupported claims that, if a route and budget could be found for the Sydney Airport Gateway, performance would be better, but acknowledges there would still be insufficient capacity to prevent ‘Unreleased vehicles’ (gridlock).

Capacity constraint is, of course, the ultimate form of demand management. If driving is too difficult, people will find other options, and the EIS acknowledges this:

> “It should also be noted that capacity constraint can be used as a demand management technique, which discourages car travel and that conversely, over-provision of capacity can encourage more car use.” (H-46)

In addition, when calculating intersection performance, congestion was assumed away:

> “For the purpose of analysing intersection performance in this assessment, all exit blocking constraints, applied in the microsimulation models to reflect network congestion beyond the modelled network extents, were removed. This allows for an assessment of the intersections within the modelled network, irrespective of any downstream queuing that would mask the actual operation of the intersection.” (8-17)

In other words, the EIS only reports on how intersections would perform if the network were not as congested as it would be under this proposal. We do not accept that this will lead to reliable predictions. If there is going to be downstream queueing, then an accurate model

must necessarily include the downstream queuing. Congestion cannot simply be wished away in order to produce the desired results.

We ask the Inquiry to obtain and publish the modelling results with exit blocking constraints not removed.

We are concerned that there is a non-neglible risk that the modelling underestimates traffic in the area surrounding the study area.

We ask the Inquiry to have the modelling repeated for a larger area.

If the model predicted that there is a chance that WestConnex will not work, then it was maladministration not to include this finding.

We remind the Inquiry hat deliberately selecting model parameters to to produce favourable results would constitute maladministration. We remind the Inquiry that selective reporting of model outcomes would constitute maladministration. We ask the Inquiry to determine if either of these actions has occurred.

During the M4 and M5 EIS evaluations, limitations were acknowledged but the M4-M5 Link was to address those limitations. During the M4M5 EIS, these limitations have not been addressed, and as in some giant Ponzi scheme, all the problems that this stage was supposed to address will instead be fixed in the next stage.

We ask the Inquiry to recommended that when large scale projects are evaluated, each individual stage should be justified in its own right, rather than on the potential benefit that may or may not accrue from later stages.

We ask the Inquiry to recommended that when an individual stage of a larger project is not justified in its own right, then it should only be approved when the entire project is approved as a whole, counting only reasonably certain benefits but counting all reasonably possible costs.

Network performance around the other portals is similar to St Peters. Average speeds are lower than they currently are, and are not improved by building the project as proposed. The claim is made that performance can be improved by proposed extensions, beyond the scope of this project, but no evidence or costings are provided.

These portals are the end destination of the M4 and M5. Traffic will need to enter or exit the WestConnex at one of these portals, but the modelling says that vehicles will be blocked from entering these networks: vehicles will be gridlocked in tunnels, with all that implies for human health and safety.

According to the modelling presented, the M4 M5 Link cannot achieve its objectives.

The M4-M5 EIS should not have be evaluated, let alone approved, without modelling being computed that demonstrates no 'unreleased vehicles'. It would be acceptable for this to be achieved through 'demand management', but only if that demand

management is of a specified form, to enable the actual costs and benefits of the with-demand management project to be evaluated

WestConnex fails to meet Objective 2.

Objective 3 - Cater for the diverse travel demands along these corridors that are best met by road infrastructure

The structure of this objective requires an assessment of which of the many travel demands along the corridor are best met by road infrastructure. This assessment is not present in the M5 EIS. Instead, the EIS assumes, rather than demonstrates, that a range of diverse travel needs are 'best met by road infrastructure.'

Instead, as contemporary analysis has repeatedly shown, the majority of traffic movements are fungible and highly responsive to environmental changes including: provision of alternate modes of transport, (for example public transport); provision of alternate traffic generators (for example increased local employment opportunities); and cost and other signals (for example congestion charging).

Providing such alternatives and incentives would free up road infrastructure for use by those road users that genuinely have no alternative, and it would do so at a lower cost.

WestConnex fails to meet Objective 3.

Objective 4 - Enhance the productivity of commercial and freight-generating land uses strategically located near transport infrastructure

The EIS does not make clear exactly what lands this is referring to. The planned route for the WestConnex does not connect to Sydney Airport, Port Botany or the Badgerys Creek Airport. This is perhaps a reference to faster travel times that would enhance productivity and attractiveness for businesses along the WestConnex route, but only if traffic modelling predictions are accurate. The modelling has not been made available for independent review. Modelling by the same firm that provided these estimates – AECOM - has on occasion been devastatingly wrong, not least in the case of the RiverCity toll road where reliance on AECOM predictions contributed to a 1.68 billion dollar loss and commercial failure of the venture.
[http://www.wsj.com/articles/aecom-unit-pays-us-201-million-to-Settle-australia-toll-road-lawsuit-1442826365].

In the absence of the assumptions behind and the details of the traffic modelling and induced transport forecasts, and in absence of a transparent business case, it is not possible to evaluate the future impact of the project on land uses.

WestConnex fails to meet Objective 4.

Objective 5 - Fit within the financial capacity of the State and Federal Governments, in partnership with the private sector

Neither the various Business Cases nor EIS contains the assumptions behind the financial modelling. But the 2015 Updated Strategic Business Case contains enough information about traffic volume and time savings to demonstrate that the WestConnex fails to return its costs.

As already shown in this submission, it will have a return on investment well below 1:1.

The executive business case was found by the NSW Auditor General to be inadequate; it " did not meet best practice standards" and "it was not able to form a view [that] the project is a worthwhile and prudent investment ... for the NSW government". Nothing has changed "Infrastructure NSW should ensure the Major Projects Assurance Framework is fully implemented" said the Auditor General at the time, and this is still true now. [http://www.audit.nsw.gov.au/news/westconnex-assurance-to-the-government]

Revenue modelling produced by Mehreen Faruqi, the Greens MLC and a professional engineer, showed that even at full capacity, the WestConnex cannot physically carry enough traffic to be financially viable, and at full capacity it would be more congested than the M4 and M5 currently are [http://www.mehreenfaruqi.org.au/westconnextolls].

At full capacity, based on similar infrastructure, the entire WestConnex would have a commercial value of perhaps five billion dollars - less than a third of its cost, assuming no cost overruns during development.
[http://www.smh.com.au/nsw/what-you-need-to-know-about-westconnex-the-biggest-road-weve-ever-seen-20150313-143ujn.html]

Even this allocates to the WestConnex revenue that was already available to the State Government. There are no technical reasons why the M4 and M5 could not have been tolled without constructing WestConnex, and WestConnex revenue should be considered to include only the additional tolling that would be enabled by the extension and expansion.

On all the available evidence, there are alternate projects that will more reliably deliver greater improvements to public mobility, for far lower cost than billions of Federal and State funds that the WestConnex will absorb - see the section 'Alternatives to WestConnex'.

All of this should have been properly considered by the Business Case.

We ask the Inquiry to have the business case updated with a fair and independent assessment of alternatives.

WestConnex fails to meet objective 5.

Objective 6 - Optimise user-pays contributions to support funding in a way that is affordable and equitable

Commuters who use the WestConnex will be spending up to eighty dollars a week on tolls, even if they use no other tollroads. This will not be affordable for many of the current users of the M4 and M5, nor is it equitable when they will receive a service that is only a few minutes better than what they currently have, and inferior to what they could have if alternate projects were undertaken instead. The analysis presented suggests that this will fund less one third of the $18B cost of the WestConnex, leaving at least $12B to be funded from the public purse, by taxpayers who gain nothing from the WestConnex.

Further costs fall on those subject to what is euphemistically called Compulsory Acquisition. Examination of Compulsory Acquisition is beyond the scope of this submission.

The EIS business case only considers benefits and not properly, and it does not document the extent to which those benefits can converted to revenue. It does not include an adequate assessment of the indirect costs of the project, and of the opportunity cost of forgoing alternate projects.

Without time-of-day charging or congestion charging, all users will be tolled equally. A fairer tolling mechanism would see higher tolls during peak hour and lower tolls outside peak hour.

Tolls that are fixed in advance risk having a toll that is too high, so that the road is underutilised, or or too low, meaning congestion and a failure to capture available value.

Flexible tolling is not possible if WestConnex is privatised.

We recommend to the Inquiry that the running of the WestConnex be outsourced, but that ownership remain in public hands, so that tolls can be adjusted up or down as required to balance demand.

WestConnex fails to meet Objective 6.

Objective 7 - Provide for integration with other WestConnex projects and the proposed Southern extension, while not significantly impacting on the surrounding environment in the interim period.

The M5 EIS acknowledges there are significant impacts in relation to noise, loss of housing and destruction of heritage. Already, as happened on the M4 widening, there are issues with asbestos waste being dumped–and at a school, while at Beverly Hills, noise walls were removed for months, causing great distress to locals..

The demonstrated costs do not justify the putative benefits.

WestConnex fails to meet Objective 7.

Objective 8 - Protect natural and cultural resources and enhance the environment.

At least 50 hectares of open space and potential open space and a huge amount of vegetation are being lost across the WestConnex routes.

A large number of heritage buildings, including homes, are being demolished. Communities are being decimated.

Objective 8 is not being met.

Overall

As revealed by the M4M5 Link EIS, the WestConnex project will not meet its goals, whether or not Stage 3 is completed, and whether or not Sydney Gateway is completed.

To spend money on Stage 3 in the hope that money spent on Stages 1 and 2 will not prove to have been wasted is to risk falling victim to the Sunk Cost Fallacy.

The quality of analysis so far gives no reason for hope that proceeding with Stage 3 is not throwing good money after bad.

We ask the Inquiry to recommend that no further contracts be signed until an independent business case can be completed and publicly reviewed.

(h) the circumstances by which WestConnex and the Sydney Gateway were declared to be separate projects in 2017

In addition to investigating the circumstances by which WestConnex and the Sydney Gateway were declared to be separate in 2017, we also recommend that the Inquiry seek to determine how Sydney Gateway was treated prior to 2017.

It appears to us that they was sometimes treated as separate, and sometimes not.

2012 through 2016

In the October 2012 document “WestConnex – Sydney’s next motorway priority”, WestConnex included a “Connection to Airport”:

Figure 1: WestConnex – Core elements and connections

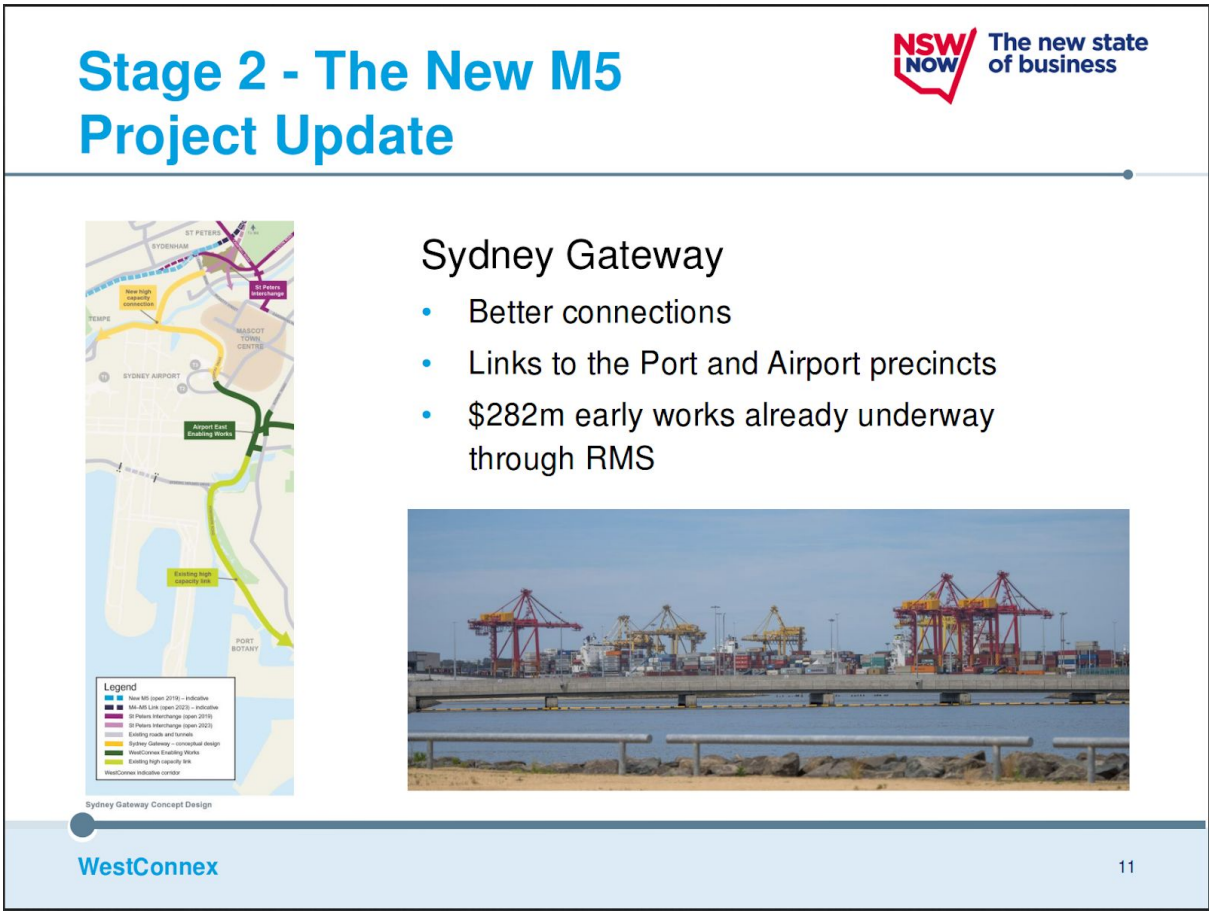
http://www.infrastructure.nsw.gov.au/media/1160/insw_tfnsw_and_roads_and_maritime_services_wcx_25_sept_2012_final_120927.pdf

In the 2013 Business Case, WestConnex skirted Airport Drive. There was no Sydney Gateway:

Figure 1: WestConnex – Building for the future

2 WestConnex Business Case Executive Summary

A 2014 Project Update mentions the Sydney Gateway, and says that: "$282m [of] early works [are] already underway through RMS".



http://www.roads.org.au/Portals/3/INDUSTRY%20LUNCH%20PRESENTATIONS/Dennis%20Cliche%20Presentation%20at%20RA%20lunch%207NOV2014.pdf

It is unclear if this $282 million is included in the then $14.9 billion 'actual cost' mentioned on page 5 of the same document, or indeed if it has been included in the $16.8 billion cost that is still the latest available public figure.

We recommend that the Inquiry seek to determine how much has been spent on the WestConnex from the RMS budget and other budgets.

The 2015 New M5 EIS says that the Sydney Gateway is one of the "component projects of the WestConnex program of works", and that it, like all of the component projects, "is the subject of further investigations by the NSW Government and would be subject to separate planning approval".

The 2016 Business Case is not consistent in its treatment of Sydney Gateway. Sometimes, WestConnex includes Sydney Gateway. At other times, even in the same document, WestConnex includes a connection to Sydney Gateway.

On page 23, KPMG's 'Tech Paper 1-Traffic report Final'' says that "WestConnex also includes the proposed Sydney Gateway linking the St Peters Interchange to the Domestic

and International airports."

> WestConnex also includes the proposed Sydney Gateway linking the St Peters Interchange to the Domestic and International airports.

On page 19 of KPMG's 'Tech Paper 2-KPMG WCX economic appraisal', WestConnex Stage 2 Key components include: "'Sydney Gateway' connecting St Peter Interchange to Airport Drive, near Sydney Airport."

WestConnex Stage 2	Stage 2 involves a New M5 to duplicate the existing M5. Key components include: • Upgrade to the existing on and off-ramps at the King Georges Road interchange. • Widening of the existing M5 East surface road to four lanes in each direction, from King Georges Road, Beverly Hills, to just west of Kingsgrove Road, Kingsgrove. • Western tunnel portal located on the M5 East, just west of Kingsgrove Road. Tunnel in close proximity to existing M5 East, before heading north to St Peters. • Eastern portal south of Campbell Road, St Peters, creating the 'St Peters Interchange'. Once Stage 3 is built, St Peters Interchange will operate as on and off-ramps for the integrated motorway tunnel. • Tunnel stubs to facilitate underground connection with Stage 3. • Surface road works for roads in the vicinity of the St Peters Interchange, including: • 'Sydney Gateway' connecting St Peter Interchange to Airport Drive, near Sydney Airport. • Upgrade of the King George Rd Interchange has already commenced. • Construction of the new M5 tunnel is expected to commence in 2016.

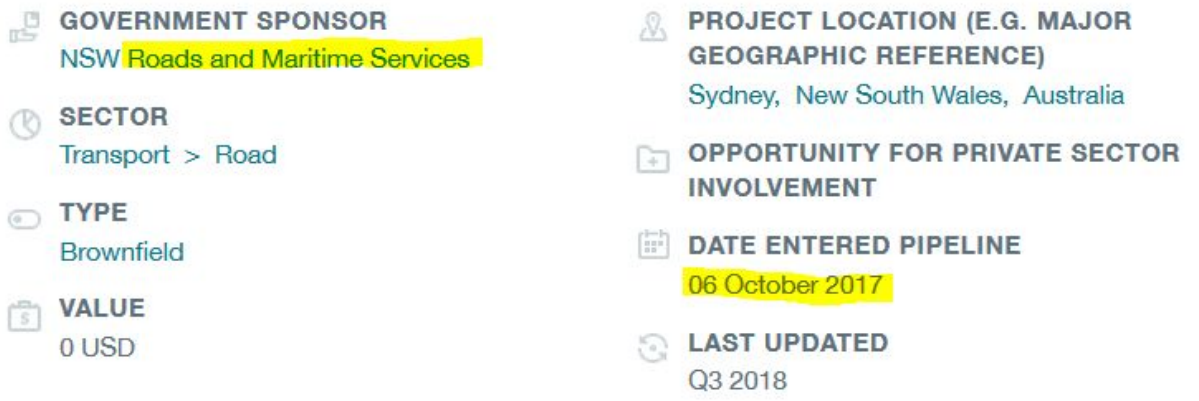
On page 22 of the KPMG analysis: "Stage 2 also includes a *connection* to 'Sydney Gateway' connecting St Peter Interchange to Airport Drive, near Sydney Airport." (Emphasis ours).

> Stage 2 also includes a connection to 'Sydney Gateway' connecting St Peter Interchange to Airport Drive, near Sydney Airport.

We recommend that the Inquiry seek to determine whether the business case was done without a consistent position on whether WestConnex includes Sydney Gateway, or only a connection to Sydney Gateway.

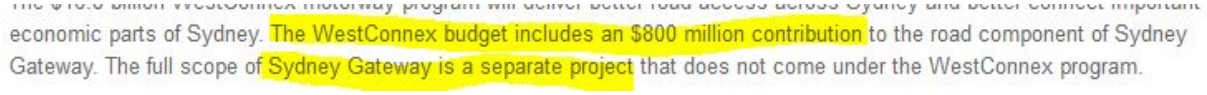
2017

GIHub show that Sydney Gateway was registered in their pipeline of projects on 6 October 2017, under the sponsorship of RMS, possibly suggesting that it was not recognised as a standalone project before that approximate date.



https://pipeline.gihub.org/Project/ProjectDetails/166

Mehren Faruqi was told on 14 November 2017 that "Sydney Gateway is a separate project that does not come under the WestConnex program" but that the "WestConnex budget includes an $800 million contribution to the road component of Sydney Gateway".



https://www.parliament.nsw.gov.au/lc/papers/Pages/qanda-tracking-details.aspx?pk=237179

We ask the Inquiry to determine not just the circumstances by which WestConnex and the Sydney Gateway were declared to be separate projects in 2017, but also to determine whether there was a consistent treatment of the matter in the business case and if not, how this inconsistency was allowed to occur, apparently undetected.

This is not an academic issue. While the business case is a matter of record, the processes and procedures that produced it are still in place and are still being relied upon and are presumably at risk of introducing similar inconsistencies in current and future assessments.

We ask the Inquiry to determine if it is acceptable practice for the budget for one project to be used for a different, related, but not yet approved project.

We ask the Inquiry to determine whether there have been other instances of this practice in recent history, either in RMS or otherwise.

We ask the Inquiry to consider recommending a subsequent Inquiry into the practice of diverting funds to purposes other than that for which they were allocated.

(i) any other related matter - specifically, whether the approval of the M4M5 EIS was good faith, and if not, whether or not it reaches the bar for maladministration.

The M4M5 is perhaps the most problematic of the 3 stages of the WestConnex to have received approval to date.

Approval was granted despite the lack of any specific plan to be approved.

We recommend the Inquiry to find that approval for the M4M5 Link EIS should not have been given prior to the completion of a firm and detailed plan for the M4M5 Link.

Approval was granted despite serious concerns being raised by the public, the EPA and by the independent experts commissioned by RMS to review the project.

Peer review of traffic and transport assessment and active transport assessment

The Peer Review of the Traffic and Transport Assessment and the Active Transport Assessment in the M4-M5 EIS are damning.

The following are entirely direct quotes from the peer review:

- "[The WRTM's] forecast future year traffic demands are well in excess of the network's practical capacity ... [The WRTM] shows significant traffic growth between 2015 and 2023 on many north-south arterial roads approaching the CBD which would be considered to be at or very close to their practical daily capacity now and hence would simply not accommodate the levels of increase forecast."
- "if the levels of congestion reported by the WRTM were being approached, then the accessibility-economic relationships would influence land use development and hence realise alternative demographic growth outcomes than those that have been input into the model"
- "volumes should be considered as the volume being demanded of the network under certain demographic growth assumptions and not necessarily the traffic that could be supplied by the network"
- "The benefits assessment for the project has been based on the WRTM which may tend to overstate the congestion levels in the future base case and hence overstate the congestion-reduction benefits of the project"

- “the level of detail provided from the microsimulation model is insufficient to completely understand pinch point effects and queuing patterns and how they influence the results.”
- “Most of the key intersections are shown to operate at peak hour LoS of D or better in all years and for all scenarios. Given the forecast increases in traffic demand, particularly associated with ramp entry and exit points, this is difficult to rationalise”
- “queueing on the Wattle Street approach to its intersection with Parramatta Road is likely to block back along Wattle Street and into the westbound exit tunnel portal. The modelling suggests that this queue does not extend back to the tunnel mainline however this cannot be confirmed with the information provided. Furthermore, these queue lengths would be expected to continue to grow beyond the opening year and could very likely extend to the tunnel mainline by 2033.”
- “travel time results show some excessively long times between City West Link and Frederick Street with and without the project and these results would appear to be in conflict with the reasonable LoS results for the Wattle Street / Parramatta Road intersection”
- “soon after opening, queues will extend back across the Anzac Bridge and into the Rozelle Interchange. ... inbound City West Link traffic will also be affected”
- “these queues could generate secondary impacts to non-radial movements such as between the Iron Cove Link and the M4-M5 Link to the south of the interchange.”
- “The travel time comparisons reinforce the consequences of essentially ‘flooding’ the Anzac Bridge with traffic ... and impacting the Rozelle Interchange and consequently Victoria Road and the Iron Cove Link inbound”
- “queues extend from the Anzac Bridge back into the interchange ramps and the ends of the model near Victoria Road. In effect, these queues could, by 2033, be expected to block trips from the Iron Cove bridge intending to access the south via the M4-M45 link. Functionally, one of the key purposes of WestConnex was to connect origins and destinations within the Victoria Road, the M4 and the M5 corridors and the queueing back potentially undermines some of this functionality”
- “By 2033, the network is so overly saturated that the benefits of the project are small in absolute terms with many intersections still operating over capacity in both peak hours. The PM peak is worsened compared to without the project and this is expected with the M4-M5 Link essentially feeding more traffic into an area that is already heavily congested, particularly in the PM peak hour where airport demands and outbound peak traffic demands co-inside.”
- “The simulation modelling queue length outputs for the project case show no visually significant reduction in queues compared to the do minimum case. The network is so heavily saturated that it is very difficult to draw any firm conclusions regarding the relative impacts and benefits of the project in this area. The management measures identified

in the EIS rely on the proposed 'Sydney Gateway' being constructed and no real alternative has been offered in lieu of this."

- "key unresolved questions from the review of the operational period modelling and assessment include:
    - How the intersection of Frederick Street/Parramatta Road/Wattle Street performs with the project and how impacts at this location can be managed?
    - The extent of effects of queuing back from the Sydney CBD into Anzac Bridge and into the proposed Rozelle interchange and what are the consequential impacts on non-CBD movements, and how could they be mitigated?
    - How to reasonably assess the potential impacts and benefits in the St Peters area without implementing other upgrade projects as part of the base case, or further reducing assumed traffic growth."

- "No public transport modal share impacts on the rail system or bus system, or light rail due to the project have been documented in the EIS"

- "No tangible measures have been offered to manage the impacts generated at the Wattle Street/Parramatta Road/Frederick Street intersection or the queue-back impacts from the Anzac Bridge into the proposed Rozelle interchange"

- "There are insufficient details to demonstrate acceptable mitigation of City West Link traffic delays during construction."

  [https://majorprojects.accelo.com/public/57ce36da92822f09b44cacd6f4b34081/WestConnex%20M4-M5%20Link_Independent%20Consultant%20Peer%20Review_Appendix%20D%20of%20EA%20Report_Traffic%20and%20Transport.pdf]

Peer Review of Independent Air Quality Review

The Peer Reviews of the Air Quality Review in the M4-M5 EIS are damning.

The following are entirely direct quotes from the peer reviews:

- "that the approach adopted uses the dispersion model in a less than ideal manner in terms of delivering the most accurate results at the most potentially affected locations"

- "The meteorological component of the model has poor spatial performance ... it is not clear why modelling tens of thousands of generally distant, little affected locations is a key feature of the assessment approach"

- "The representation of apartments, offices (etc.) as a single receptor point increases uncertainty in the assessment as it has potential to underestimate the affected population and the pollutant impact. This is because many receptor points were selected in the centre of an apartment block or complex, rather than at the edge nearest the main road"

- "The interpolation used results in implausible changes in pollutant levels across the modelling domain, making the approach challenging to accept, and leading to significant potential errors in the absolute predicted levels."

[https://majorprojects.accelo.com/public/06781ea60903e97c8348474049b2d353/WestConnex%20M4-M5%20Link_Independent%20Consultant%20Peer%20Review_Appendix%20F%20of%20EA%20Report_Air%20Quality.pdf]

Peer Review of WestConnex M4 - M5 Link Independent Groundwater Review Report

The Peer Review of the Groundwater Review is damning.

The following are entirely direct quotes from the peer reviews:

- "The EIS groundwater impact assessment assumes [without merit] that long - term average groundwater inflows into the tunnels can be limited to less than 1 L/s/km."
- "there is a high risk of fracture and a high degree of connection to the overlying alluvium"
- "could potentially discharge contaminated groundwater into the surface water environment"
- "recommended that the submission be clarified"

[https://majorprojects.accelo.com/public/753cd026b0ccf9e164af131a4dfdb342/WestConnex%20M4-M5%20Link_Independent%20Consultant%20Peer%20Review_Appendix%20H%20of%20EA%20Report_Groundwater.pdf]

EPA response to NSW Roads and Maritime Services' Preferred Infrastructure and Response to Submissions Report (SPIR)

In a letter to NSW Planning in February 2018, EPA Metropolitan Regional Director Ms. Giselle Howard acknowledged that while RMS had addressed some concerns raised by the EPA in its earlier rejection of the EIS, the EPA

- "reiterates its previous advice that all impacts be "assessed in detail during the Environmental Impact Assessment rather than under post-approval management plans".

Good faith or maladministration

WestConnex Stage 3 has been approved, in effect, sight unseen. Approval has been granted for a plan that does not exist, and despite harsh criticism from the public and independent experts.

We do not believe that good faith approval can be granted for a plan that does not exist.

We ask the Inquiry to find that there is a lack of evidence that the decision to recommend approval of the M4M5 Link EIS was made in good faith.

Maladministration defined

The NSW Ombudsman has the following to say on the topic of maladministration:

> The word 'maladministration' is used and defined in the Protected Disclosures Act 1994, which provides that for the purposes of that Act,
> '…conduct is of a kind that amounts to maladministration if it involves an action or inaction of a serious nature that is:
>
> (a) contrary to law, or
> (b) unreasonable, unjust, oppressive or improperly discriminatory, or
> (c) based wholly or partly on improper motives.' (s.11)

Examples given include:

> • Unreasonable:
> › decisions or actions so unreasonable that no reasonable person would so decide or act (eg. irrational)
> › decisions or actions that do not take into account all relevant considerations, or that take into account irrelevant considerations
> › failures to rectify identified mistakes, errors, oversights or improprieties
> › failures to properly investigate.
>
> • Mistake of fact:
> › decisions or actions based on information that is factually in error or misinterpreted
> › important facts omitted from reports or deliberations, or ignored.
>
> • Failure to give reasons:
> › statements of reasons are not given when required by law or it is otherwise reasonable to do so
> › statements of reasons are inadequate because all relevant issues are not addressed or the relevant criteria on which the decision is based are not stated
> › reasons given are not comprehensible to the likely recipient.
>
> https://www.ombo.nsw.gov.au/__data/assets/pdf_file/0015/3705/FS_PSA_13_Maladministration.pdf

WestConnex conduct

We believe that the conduct of the WestProject, and most especially approval of the M4M5 EIS, constitute maladministration under several of the above listed clauses.

Approval has been given despite:

- failure to meet the stated objectives

- forecast benefits that barely exceed the forecast cost
- forecast revenue that is less than the forecast cost
- serious cause to doubt the claimed forecast benefits
- real risk that forecast cost is too low
- the existence of alternatives.

Perhaps most egregiously, approval has been given to a project that has not yet been planned and may not be technically possible, meaning that any discussion of costs or benefit is, at best, speculative.

No justification for any of this has been given.

While we cannot claim evidence of improper motivations for proceeding with the project, beyond the absence of evidence of any proper motivation for proceeding, the very absence of evidence for proper motivation should, in and of itself we hold, constitute maladministration because it is incumbent on decision-makers to provide credible justification for these decisions.

We ask the Inquiry to find that the decision to proceed constitutes maladministration, even if only through the absence of evidence that the project has been properly administered.

We ask the Inquiry to consider referring the project to the Ombudsman.

Appendix 1 - Explore the Route - Travel Time Saved

Before the Explore the Route webpage was taken down, it was showing the following travel times:

time from/to	James Ruse Drive	Silverwater Road	Hill Road	Homebush Bay Drive	Concord Connection	Haberfield	Rozelle Connection	Parramatta Road	CBD	St Peters Interchange	Sydney airport - domestic terminal	Port Botany	King Georges Road
James Ruse Drive						10	18	25	27	18		35	
Silverwater Road						10	15	20	25	15	18	30	
Hill Road						7	14	20	30	14	16	30	
Homebush Bay Drive						6	12	15	21	12	15	25	
Concord Connection							10	15	20	10	15	25	
Haberfield	16	13					8	10	15	8	10	25	
Rozelle Connection	25	20		15	13	10				5	7	20	15
Parramatta Road	25	20		15	10	10							15
CBD	30	25		20	18	15							25
St Peters Interchange	25	20		15	13	10							10
Sydney airport - domestic te	25	23		17	15	10							10
Port Botany	35	30		25	25	20							17
King Georges Road									30	10		15	

Amongst other anomalies, it may be seen that:

- The time to Haberfield from James Ruse Drive is apparently 10 minutes,
- The time to Haberfield from Silverwater Road is also, apparently, 10 minutes
- Having reached Haberfield, the additional time needed to to reach Rozelle Connection can be as high as 8 minutes, if the driver starts from James Ruse drive, or as low as 5 minutes, for a driver starting from Silverwater road.
- It takes eastbound traffic less time to reach St Peters Interchange via the M4 than it takes to reach Rozelle Connection.

The presence of so many blatant internal contradictions suggests that, at best, inadequate care has been taken to correctly inform the public. One hopes that these numbers have not been used to calculate user benefits.

The Explore the Route page never made explicit what alternate scenario the savings were calculated against.

We also note that Ministers were promising time savings of 40 minutes for some journeys.

We ask the Inquiry to consider recommending that the "Explore the Route" webpage be restored, with numbers correctly showing savings (if any), compared to current travel times.

We ask the Inquiry to investigate whether or not Ministers were misled as to the likely time savings.

Appendix 2 - Travel Time Saved by Users

Time savings per user are not directly provided in the Business Case, but the total value of travel time saving is provided in Tech Paper 2 (Tech Paper 2-KPMG WCX economic appraisal), including both the present value and also the total undiscounted VTTS:

Table 5-2: User benefits of the WestConnex scenario

User Benefits	Discounted (Present value)	Undiscounted (Total value)
Travel Time savings		
Cars – Privately registered, Business use[13]	$4,305.9m	$18,303.4m
Cars – Privately registered, Commuter	$1,687.6m	$7,290.7m
Cars – Privately registered, Other	$991.8m	$4,541.3m
Light Commercial Vehicles	$3,389.3m	$14,094.9m
Heavy Commercial Vehicles	$2,528.3m	$10,895.1m

The 'value of travel time saving per hour' by vehicle type is also provided:

Table 5-4: Value of travel time savings parameters ($2015)

Vehicle Type	VTTS ($ per vehicle hour) TfNSW (2015 Q1) Values
Cars – Privately registered, Business use	$53.60
Cars – Privately registered, Commuter	$21.32
Cars – Privately registered, Other	$21.32
Light Commercial Vehicles	$37.83
Heavy Commercial Vehicles	$69.57

Dividing the undiscounted value of travel time saved by the value of travel time saved gives us an estimate that the total travel time saved by users is 1,425 million hours, or just under 115,000 hour saved per day, over the 34 year Appraisal Period (2019 to 2052):

	$M of travel time saved (undiscounted) *From table 5-2*	$ per hour saved *From table 5-4*	M of hours saved *Divide column A by column B*	hour saved per day *Divided column C by the 365*34*
business	18303.4	53.6	341.481	27517
commuter	7290.7	21.32	341.965	27556
other	4541.3	21.32	213.007	17164
lcv	14094.9	37.83	372.585	30023
hcv	10895.1	69.57	156.606	12619
total	55125.4		1425.645	114879

Summary of Recommendations to the Inquiry

We recommend that the Inquiry seek out a copy of the modeling of the viability gap, as mentioned on page 56 of the Updated Strategic Business Case, and we also request that the modeling be made public.

We encourage the Inquiry to determine if WTP (Willingness To Pay) was considered in any modelling and what was the result, or if WTP was not considered, why was it not considered.

We ask the Inquiry to consider recommending the use of WTP instead of VTTS for future transport infrastructure project assessments.

We encourage the Inquiry to investigate why the Business Case did not follow Transport for NSW's recommendation that buisness trips be assumed to be 8% to 12% of total trips.

We encourage the Inquiry to seek to have the Business Case revised, accepting Transport for NSW's recommendation that buisness trips be assumed to be 8% to 12% of total trips, and with a justification for the level chosen within this range.

We ask the Inquiry to consider recommending consideration of Wider Economic Costs for future transport infrastructure project cost-benefit assessments, perhaps using a model similar to the model used for Wider Economic Benefits.

We ask the Inquiry to determine the implications for the viability of Stage 3, if User Benefits have been overstated by a factor of 4, as is suggested by an examination of the figures in the 2015 Business Case's Tech Paper 1.

We ask the Inquiry to determine what instructions were given to KPMG, either formally or informally. In particular, were they tasked with preparing an assessment of the viability of the project proceeding, or were they, even informally, led to believe that they should prepare a justification for the project proceeding.

We ask the Inquiry to seek to obtain, examine and publish the modelling behind the forecast Motorway user and Non-Motorway user time savings.

We recommend that the Inquiry seek out a copy of the modelling for Travel Time Saved, and we also request that the model be made public.

We recommend that the Inquiry determine why the percentage of Business Travellers is so much higher than Transport for NSW Guidelines, and why this discrepancy was not reported in the Business Case.

We recommend that the Inquiry seek out a copy of the modelling for patronage levels, and we request that the model be made public.

We ask the Inquiry to find that revenue that could be collected from existing assets (such as the M4 and M5) should not be considered to be revenue attributable to other sources, including project that expand or extend those assets (such as WestConnex).

We ask the Inquiry to investigate what modelling of alternatives was done, and why such modelling was not included in the business case and EIS.

We ask the Inquiry to investigate to produce or recommend the production of modelling of alternatives to WestConnex.

We ask the Inquiry to determine how demand management was applied, and what implications this has for the wider project

We ask the Inquiry to determine what was meant by growth reduction factor and what what implications it would have for the project outcome if growth reduction is achieved and also if growth reduction is not achieved.

We ask the Inquiry to obtain and publish the modelling results with exit blocking constraints not removed.

We ask the Inquiry to have the modelling repeated for a larger area.

We remind the Inquiry hat deliberately selecting model parameters to to produce favourable results would constitute maladministration. We remind the Inquiry that selective reporting of model outcomes would constitute maladministration. We ask the Inquiry to determine if either of these actions has occurred.

We ask the Inquiry to recommended that when large scale projects are evaluated, each individual stage should be justified in its own right, rather than on the potential benefit that may or may not accrue from later stages.

We ask the Inquiry to recommended that when an individual stage of a larger project is not justified in its own right, then it should only be approved when the entire project is approved as a whole, counting only reasonably certain benefits but counting all reasonably possible costs.

We ask the Inquiry to have the business case updated with a fair and independent assessment of alternatives.

We recommend to the Inquiry that the running of the WestConnex be outsourced, but that ownership remain in public hands, so that tolls can be adjusted up or down as required to balance demand.

We ask the Inquiry to recommend that no further contracts be signed until an independent business case can be completed and publicly reviewed.

In addition to investigating the circumstances by which WestConnex and the Sydney Gateway were declared to be separate in 2017, we also recommend that the Inquiry seek to determine how Sydney Gateway was treated prior to 2017.

We recommend that the Inquiry seek to determine how much has been spent on the WestConnex from the RMS budget and other budgets.

We recommend that the Inquiry seek to determine whether the business case was done without a consistent position on whether WestConnex includes Sydney Gateway, or only a connection to Sydney Gateway.

We ask the Inquiry to determine not just the circumstances by which WestConnex and the Sydney Gateway were declared to be separate projects in 2017, but also to determine whether there was a consistent treatment of the matter in the business case and if not, how this inconsistency was allowed to occur, apparently undetected.

We ask the Inquiry to determine if it is acceptable practice for the budget for one project to be used for a different, related, but not yet approved project.

We ask the Inquiry to determine whether there have been other instances of this practice in recent history, either in RMS or otherwise.

We ask the Inquiry to consider recommending a subsequent Inquiry into the practice of diverting funds to purposes other than that for which they were allocated.

We recommend the Inquiry to find that approval for the M4M5 Link EIS should not have been given prior to the completion of a firm and detailed plan for the M4M5 Link.

We ask the Inquiry to find that there is a lack of evidence that the decision to recommend approval of the M4M5 Link EIS was made in good faith.

We ask the Inquiry to find that the decision to proceed constitutes maladministration, even if only through the absence of evidence that the project has been properly administered.

We ask the Inquiry to consider referring the project to the Ombudsman.

We ask the Inquiry to consider recommending that the “Explore the Route” webpage be restored, with numbers correctly showing savings (if any), compared to current travel times.

We ask the Inquiry to investigate whether or not Ministers were misled as to the likely time savings.