Submission No 213

INQUIRY INTO IMPACT OF THE WESTCONNEX PROJECT

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WestConnex Inquiry

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The author was previously employed by the former State Pollution Control Commission and Environment Protection Authority for over 27 years. He is a professional environmental engineer with over 40 years experience and has qualifications in engineering and public policy. His primary roles encompassed environmental assessment, approval, licensing, review and regulation of many industrial facilities. These included the Botany shipping facilities, Third Runway at Sydney Airport, Parramatta High Speed Ferry and the rail network.

This submission was developed to inform the Inquiry of concerns about the WestConnex project under the "Terms of Reference." The comments are not to be read as a "not in my backyard" (NIMBY) submission but from the perspective of governance for all the people of NSW into the future. The WestConnex project provides a role model of what must be prevented in the future to make sure that future projects are both accountable and achieve ecologically sustainable development.

The author has no financial commitments or disbenefits arising from the WestConnex project.

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Summary

It is timely that this inquiry has been called to provide informed critical review of the WestConnex project. My submission will hopefully assist the Leislative Council to take a wider view of Government processes which led to the approval and construction of the WestConnex project over many years. The WestConnex project has been expanded incrementally without appropriate review. In many ways the White Bay Cruise Ship Facility was a forerunner to the WestConnex project and replicates the same flawed processes. The WestConnex project will be to the long term detriment of the public as residents, public transport commuters and users of WestConnex due to the misuse of public funds and lost opportunity for more beneficial investment.

Governance Structures

The WestConnex project has resulted in the creation of a private monopoly by Government. In the creation of this monopoly, there was insufficient attention paid to the creation of a contestable market for private companies seeking to become operators of the network. The WestConnex project has not been split into different sections with the potential for different toll operators. It is apparent that there is a lack of competition between different companies as toll road operators. The relationship between Trans Urban and the NSW Government is brought into question by the creation of a single operator. The creation of a private monopoly in the form of WestConnex without a contestable market for the service delivery provides the opportunity for inflated price and profitability with the profits ending up in private hands rather than the public purse. The toll road operator is ideally placed to pass on costs to users without critical analysis. A single toll road operator has significant power over the State Government and can exercise that power by threatening public exposure and disrupting monopolistic service delivery. Even with price regulation as takes place in the electricity distribution industry, price regulation was ineffective in preventing the large increase in poles and wires costs in the electricity distribution industry. The governance structure adopted for the WestConnex project has a significant risk which has not been recognised and addressed in the documentation. This amounts to inadequate policy formulation.

The decision of Government to create a private Government company, Sydney Motorway Corporation (SMC), to construct WestConnex is an example of the Government seeking to evade public scrutiny of the WestConnex project. There was no critical review of why the SMC had to be created to construct the project. This is inconsistent with democratic Government and the public right to know. Any attempt by Government to evade public scrutiny leaves that Government open to question and speculation about its motives and its ability to withstand criticism of its decisions. WestConnex falls into this category because of the Government's decision to create a private construction company.

The relationship between Government and the regulators, (Planning and Environment and the EPA) is also questioned. This submission will provide information relating to the regulation of specific environmental issues and opens the question as to whether frank and fearless advice was provided by those Departments or whether political expediency was a central theme.

An example of questionable governance and compromised regulation is provided by the proposed tunnel construction site near the Leichhardt Bus Depot. After obtaining environmental approval for this site, WestConnex management decided to drop the need for this construction facility. In my view, this was because the environmental impacts on the residential area surrounding the site were horrendous and Planning and Environment should never have approved this facility. The proponent failed to provide any alternative to this site in its documentation. The public is now left with no

information on why an "essential" part of the project could be dropped. Such a change reflects poor management and assessment and the compromised regulation of WestConnex.

Finance Considerations

WestConnex is a very large public infrastructure project covering many years of large capital outlays. As a multi-billion dollar project, the project is subject to the risk of income shortfalls in future years. The project is very heavily reliant on Government asset sales and a continuing income stream from property sales via stamp duty. This creates under-lying project risk. In my view it places pressure on project managers to cut corners and minimise construction and operating outgoings with every opportunity.

The Government has not identified how it intends to protect itself from further cost outlays or revenue losses made by the single toll road operator in the future. A ten year toll operator contract is excessively long and will enhance the monopolistic power of the operator for service delivery. Does a 10 year contract foster a contestable market for service delivery? The likelihood of the monopolistic toll operator placing demands on the Government for unforeseen operating costs, such as, equipment failures arising from poor design, has not been recognised and addressed. The toll road operator will focus on returns to its shareholders not what in the best interest of the public. Any expected Government "revenues" from the private toll operator are likely to be volatile as the Government is highly exposed to risk of the operator failing to deliver the expected level of service.

The WestConnex project documents fail to identify any areas where the Government would be able to gain additional revenue from property revaluations arising from WestConnex. This is a major deficiency of this project as it fails to capitalise on the $20 billion investment made by tax payer funds. This is a repeat of the North West Rail link project where the NSW Government has transferred millions of dollars of public benefit into the hands of private property owners. It is about time that transformational financing of Government projects took place rather than reliance on old practices.

The WestConnex documents do not provide rigorous approach to addressing each of the serious project risks. An example of where the project is exposed to significant risks is that provided in its choice of tunnel ventilation. The decision to rely upon longitudinal ventilation for long tunnels creates a risk if air quality inside tunnels exceed health risk criteria. There is also the likelihood that air quality criteria will be reduced in the future. Costs of changing the proposed ventilation systems would be prohibitive. Who is taking the risk that longitudinal systems will be satisfactory for the next 40 years? In an attempt to deliver the WestConnex project "on budget" risks are being accepted by the Government without rigorous assessment subject to public scrutiny. Who is providing frank and fearless advice to the Government on WestConnex and are they accountable to the public? The M5 east tunnel has existing internal air quality issues. RMS is yet to ban motorcycles from using the tunnel due to poor air quality. Winding up windows and recycling air inside motor vehicles is not an innovative solution to air quality issues inside road tunnels. The failure to include pollution control on tunnel ventilation stacks is another risk that would be high cost should pollution control be required in the future.

Evidence of budgetary constraints also comes from the number and type of contractors seeking contracts for WestConnex projects. Information may be obtained from an analysis of whether companies with extensive experience and quality performance are prepared to submit quotes for projects in WestConnex. This is because reputable companies would prefer to not submit quotes for projects with tight budgets and strict performance conditions as non-compliance simply passes the cost blow out to the contractor and causes reputation damage. After obtaining environmental

approval for the Rozelle interchange, WestConnex found only one company was prepared to submit a quote for this work. Rozelle faced a lack of tenderers in my view because of the questionable geology, intensity of the existing road network and proximity to large residential areas. The question of whether an alternative option should have been explored was never considered by the proponent in the EIS. Rozelle remains highly likely to have a large cost over-run and large impact on road users and residents. In my view, this part of the project will be subject to severe public criticism due to its proximity and scale.

The St Peters Tip route for WestConnex provides an example of the serious financial constraints imposed upon WestConnex. The decision to route WestConnex through the St Peters tip was made in ignorance of the environmental impacts. The St Peters Tip was publicly known to contain highly contaminated wastes. Leachate tests would have confirmed the wastes were highly putrescible and odorous due to anaerobic conditions.

The legal claim for compensation launched by the St Peters tip operator should have been anticipated. The costs to the public purse arising from this compensation claim are yet to be discovered as court processes are ongoing. In any case, the Government needs to fully disclose these costs.

The St Peters Tip part of WestConnex was highly contentious due to the inadequate planning approval coupled with the lax regulation by the NSW EPA. Government regulators (both Planning and Environment and the EPA) appear to have been drilled to back off on regulation of the removal of the landfill because WestConnex was a Government project. Residents around this site were subjected to gross foreseeable air pollution and unacceptable noise impact. The NSW EPA should have demanded the active waste uncovered area be minimised and daily covering of exposed waste to reduce odours. These are standard conditions on all other waste disposal sites. The fact that the EPA failed to require daily total covering of active waste surfaces provides evidence of lax regulation. Compensation to the residents for the gross air and noise pollution has not been paid.

The St Peters Tip example highlights that the WestConnex project was under-costed and funds were not made available to manage pollution to standards demanded of other sites. This is unfair and unacceptable. In my view, it was negligent of WestConnex management to select the route passing through St Peters Tip due to the reasonably foreseeable environmental risks and likely cost blow-out involved.

Road traffic modelling has a track record in NSW of being problematic. Previous new tool roads never achieved the predicted vehicle usage. A repeat of this pattern poses a major risk to WestConnex if the projected volumes are not achieved. It would appear that the NSW Government and WestConnex management has attempted to reduce this risk by incremental expansion of the project scope and the transfer of previous toll free roads as tollways. These “additional” roads have the effect of funnelling road vehicles onto the toll road network thus ensuring greater profitability for the toll road operator. However, the possibility of significant changes in transport requirements, such as, car sharing and reduction in private vehicle registrations, could reduce the predicted traffic increases. A future NSW Government decision to remove the impost on train travellers to Sydney Airport of around $14/trip could see a significant reduction in road users to and from the airport. This cost impost is a residual from the Greiner NSW Government and does not represent good governance for the 21st Century.

Cumulative Environmental Impact

The arbitrary splitting of the project into sub-projects and expanded into new projects has provided the means whereby WestConnex has evaded cumulative environmental assessment. This is contrary to the Environmental Planning and Assessment Act. This suggests that NSW Planning & Environment was complicit with Government demands. Frank and fearless advice was not provided by this Department just as happened with White Bay Cruise Ships. The WestConnex project has not been required to assess alternatives, such as, public transport provision and different routes for WestConnex. Expanding WestConnex into additional projects, such as, Sydney Gateway, has evaded a cumulative assessment. The failure of WestConnex to seriously consider transport alternatives and changes in routes suggest that the Planning & Environment Department was instructed to deliver each approval without question.

WestConnex Documentation

Although the scale of the project is very large, the ability of the public to locate the existence of a particular document is challenging. Search of records does not lead to the most relevant documents. Simplistic search inputs are unhelpful. WestConnex should have used search inputs with multiple search requirements such as that used in the Austlii web site.

My second criticism is that many documents are not available to the public. The combined effect of these two factors is that critical WestConnex documents are largely inaccessible to the public under right to know objectives. Claims of public effective consultation and inclusion in decision-making have been unsatisfied.

2015 Cost Benefit Analysis

The cost benefit report prepared claiming to justify the expenditure on WestConnex was a flawed analysis. The cost estimates were with-held from the public. This lack of transparency is a very questionable action. The reasons are that it creates a perception the proponent has not exercised rigour in cost assessment and the actual costs which would be obtained from future budget outlays would highlight discrepancies in cost estimates.

An example where the cost benefit assessment will be flawed is in the assessment of costs arising from WestConnex works arising from the decision to relocate the former St Peters Tip. The WestConnex cost benefit report fails to include any consideration of the negative “benefits” arising from placing the route in the St Peters tip site.

The following table from the cost benefit report is simplistic and based on changes in background levels of air and noise pollution. Localised increases in air and noise pollution are not included as a negative cost. The costs of acoustic treatment of residential properties close to WestConnex roadways are not included as these are unrelated to $/1000vkt. Similarly, motor vehicle air pollution caused by WestConnex roadways close to residences and untreated emissions from tunnel stacks are not related to $/1000vkt. The failure of WestConnex project to institute measures to reduce air pollution at residences subject to an increase in air pollution means that WestConnex has evaded accountability for such pollution.

The heavy vehicle costs per 1000kvt do not include any cost for the much greater road damage caused by heavy vehicles. The additional road damage is evidenced by greater fine particle pollution above that arising from engine exhaust discharge.

For these reasons, the cost benefit analysis understated the costs of WestConnex and this contributed to the false conclusion on the merits of the project.

Table 5-10: Inputs and approach for the economic appraisal of environmental costs

Input	Approach and assumptions for economic appraisal
WRTM outputs for each individual link for vehicle kilometres travelled and average link speed for car and bus, and net tonne kilometres travelled for LCVs and HCVs.	Externalities quantified include air pollution, greenhouse gas emissions, noise, water, nature and landscape, urban separation and upstream and downstream impacts. Using network wide changes in vehicle kilometres travelled or net tonne kilometres travelled and application of valuation parameters
Environmental externality valuation parameters from Austroads for Cars, LCVs and HCVs.	Greenhouse gas emissions explicitly estimated using fuel consumption equations given in NGTSM 2014. CO2 emission factors were sourced from the latest National Greenhouse Accounts, and social cost of CO2 emission factors sourced from the NGTSM 2014 - Environmental parameter values (PV4]

Source: Austroads (2014) National Guidelines for Transport System Management, and ABS (2015) National Greenhouse Accounts

Environmental externality parameters for cars, light vehicles and heavy vehicles were applied to WRTM distance outputs. These parameters are consistent with the TfNSW guidelines and are summarised in Table 5-11.

Table 5-11: Environmental externality parameters

Externality component	Cars ($/1000vkt)	Light Commercial Vehicles ($/1000vkt)	Heavy Vehicles ($/1000vkt)
Air pollution	$12.06	$5.77	$124.98
Greenhouse Gas	$6.39	$2.58	$28.94
Noise	$2.88	$1.76	$26.49
Soil and water	$0.65	$0.53	$13.02
Biodiversity	$0.57	$0.22	$8.79
Nature and landscape	$0.13	$0.28	$1.00
Additional urban/barrier effects	$2.07	$1.02	$8.46
Upstream and downstream	$7.87	$2.89	$30.49
Total	**$32.62**	**$15.05**	**$242.17**

Source: Austroads (2014) - Updating Environmental Externalities Unit Values - Dec, 2013 (Q2) prices escalated to 2015 (Q1) based on CPI.

Assessment of Air Quality Impacts

The NSW Government has not kept up with international best practice for control of air pollution. The NSW EPA's load based licensing (LBL) scheme has not been updated with increased charges to reflect costs of pollution control. Tunnel stacks have not been included as licensed premises and subject to LBL charges for pollutants discharged. WestConnex documents exclude any reference to imposing toll charges on road users based upon vehicle pollution levels. Roadside technology to monitor individual vehicle exhaust emissions exists and should be used to include pollution costs on motorway users. WestConnex documents have not included detailed modelling of various electric vehicle (EV) scenarios on air pollution. WestConnex is claimed to have a 100 year life and air quality implications should be assessed over that time frame.

The Australian National Environment Protection Measures (NEPMs) for air quality were used to assess WestConnex. NEPMs reflect agreement between State and Federal Environment Ministers and involve compromise between diverse interests. They are not based solely on scientific evidence as detailed in the WHO criteria. This is compounded by the extraordinarily long time taken for WHO criteria to be reflected in the NEPMs. For this reason, the use of NEPMs alone did not follow a precautionary approach in the approval of WestConnex. The risk of new air quality parameters in guidelines or lowering of existing criteria was not addressed in the WestConnex documents. The 2013 Business Case document and its revision claims that stringent measures to assess air pollution will be followed. Pollution levels of ultra-fine particles (UFPs) have not been required to be assessed. Although there are no accepted health guidelines for UFPs, ignoring and failing to assess UFPs is not

best practice. NEPMs alone are not stringent and not international best practice for protection of health. Risk management practices for air quality were not followed in the approval of WestConnex.

The business case documents place the onus on Federal emission standards to reduce motor vehicle pollution. Federal emission standards have not progressed for many years and there is no likelihood that air pollution limits will be introduced Federally using the World Wide harmonised light vehicle test procedure (WLTP) in the foreseeable future. Passing responsibility for air pollution reduction to the Federal Government is not best practice and shows a failure of the NSW Government to take all reasonable steps to reduce population exposure to air pollution. Pollution control on tunnel stacks is best practice to reduce air pollution. Internalising pollution control for WestConnex would reflect international best practice.

NSW Government policy has not kept up to date with international best practice as WestConnex approvals did not require modelling and measurement of air pollution levels at the local level. There was no requirement to model increases in air pollution at the local level and develop appropriate pollution reduction so that residents are not subjected to higher levels of air pollution or air pollution levels which satisfy all WHO guidelines. Noise pollution modelling is performed for localised noise reduction measures and the same analysis should be required for air pollution as health effects for air pollution are based on scientific evidence just as is the case for noise pollution. Air pollution compliance should also include actual measurement of air pollution at the roadside in residential areas just the same as noise compliance requires the proponent to measure actual noise levels.

The NSW Government policy on air pollution has now shifted to effectively doing nothing to reduce transport air pollution. The past NSW Government pollution control approach of deploying best available technology and polluter pays has been extinguished. Government policy is now tied to cost/benefit rather than a requirement to reduce pollution using available technology. [1]The Government adoption of cost/benefit means that the polluter pays principle does not apply to transport pollution. Air pollution does not have to be reduced where there is available technology because the State Government has not addressed the lower cost option of wood fire pollution. The latter is regarded as being too hard politically. This policy approach means that transport pollution remains free to the polluter. No constraints have been specified in the WestConnex approvals for air pollution reduction.

The cost/benefit policy is inconsistent with conservative and sustainable environmental management. In the case of WestConnex, there are no tunnel stack air pollution emission limits placed on the development approval. NSW Government documents claim that motor vehicle pollution will continue to reduce in the future. The basis for this claim has not been subject to critical examination. Federal Government air pollution data for new road vehicles shows very little reduction in new vehicle emissions in 2016-17. As the Federal Government has not introduced new ADRs with lower air pollution limits, there is no reason that vehicle pollution levels will reduce in the future. Consent conditions on WestConnex are inconsistent with international best practice to manage and minimise air pollution from road tunnel stacks using best available technology. Instead, the NSW Government could have imposed polluter pays conditions on all tunnel stack emissions. The pollution costs imposed on stack emissions should be set to reflect the cost of stack filtering.

[1] It is to be noted that the NSW Government has not considered the air pollution reduction that would be achieved by removing the imposed $14/person/trip cost on train travellers to KSA. Encouraging train travel in place of road transport would deliver a reduction in air pollution in the Sydney Airshed.

The NSW Government air quality monitoring program does not include any sites adjacent to major roadways. The Callan Park Rozelle air quality monitoring site is well away from Victoria Road. Independent air quality monitoring data for roadside emissions is not part of the NSW Government program. The public is not being provided with access to independent roadside monitoring data. This situation is unacceptable and does not represent international best practice.

The WestConnex project has not addressed any concern for air quality imposed on pedestrians, cyclists and persons using sporting facilities adjacent to WestConnex infrastructure. The Rozelle Interchange includes a new sports field adjacent to the open roadway. International air quality data show that air pollution levels adjacent to busy roads exceeds accepted health protection criteria typically to a distance of 200 to 300 meters. Australian vehicles are no cleaner than those in other developed countries. To construct new footpaths, build new residential buildings and sports field adjacent to new WestConnex roadways imposes a health cost on future neighbours. WestConnex an additional 20,000vpd on Anzac Bridge yet ignored any consideration of reduction air pollution imposed on pedestrians and cyclists by creating an alternative route into the city. Common law imposes a duty of care on the designers and operators of WestConnex to not cause health issues arising from air pollution generated by the road development. That common law requirement cannot be satisfied by claiming that it is the Federal Government's responsibility.

Noise Pollution Control

The WestConnex project relies heavily on the 2dB(A) allowance permitted under the Government's road traffic noise policy for existing roads. Given the scale of WestConnex, the 2dB(A) allowance represents an increased noise exposure for thousands of residents. WestConnex is not an isolated road with occasional passing vehicles.[2] It involves construction of major roads with very large traffic counts. On a busy road, a 2dB(A) increase represents around 60% more traffic. Noise from traffic on a busy road should be reduced not automatically allowed to increase. The polluter has not been required to pay. It would be relatively easy in most situations for a 2dB(A) reduction to be achieved by a small height roadside barrier or lowering the road surface relative to the surrounding topography or greater distance separation. These measures could readily be optimised to also reduce air pollution – if Government policy required the toll road to do so. Given the 100 year time scale, a change in project design should be mandatory given the scale of WestConnex.

The WestConnex toll road network should include a noise fee for users. Dynamic systems are available for noise costs to be imposed on users. Such a toll fee system would signify that the Government was serious about polluters paying for their pollution.

Construction noise impacts associated with WestConnex have been addressed in favour of the proponent rather than to minimise the noise impact on residents. The "reasonable and feasible" clause in the noise guideline has been extensively relied upon to limit costs of noise control rather than protect noise intrusion on residents. In a $20 billion project, reasonable costs are much greater than those in a $1 million project. Government departments imposed only small scale costs on WestConnex rather than impose large costs as befitting a very large scale project over many years. Claims of 24 hour construction being essential were not fully and critically evaluated. The design of the "acoustic sheds" at construction sites do not represent best available technology. Double door systems and proper acoustic panels were not required. The polluter has sought and obtained approval for relatively minor noise controls rather than using best available technology. This has

[2] The author was part of the team in the NSW State Pollution Control Commission which developed the Road Traffic Noise criteria in the Noise Control Manual.

meant that local residents are expected to suffer much greater impact on their enjoyment of where they live than is fair and reasonable.

I include the following section from a Noise Assessment performed by Renzo Tonin (a consultant to WestConnex) in the St Peters area. The Tonin report includes several comments which will reduce the burden of cost imposed on the proponent and evading the responsibility of the proponent to reduce its impact to an acceptable level. The Report makes reference only to "consideration of mechanical ventilation." This comment imparts no responsibility on WestConnex to take any action to reduce noise pollution other than "to consider." While this comment is favourable to the proponent, the affected resident will not have any change made to its noise exposure. This does not go far enough.

Of serious concern is the claim that Sydney residential properties should be sealed and closed-up to reduce noise pollution and just provide a fan for ventilation and "cooling" in summer. The following claim is made: "The Sydney zone is warm temperate and not adversely affected by prevailing adverse weather conditions." WestConnex claims to have climate change as a sustainability objective. Given that the climate is changing, longer heat waves are forecast and human comfort is known to require certain temperature and air movement conditions, the Renzo Tonin claim is disputed because it is not based upon scientific information. The Tonin claim is inconsistent with the project's sustainability objective. Heat waves make it necessary for human occupancy to have air conditioning or significant building alterations made to ensure human comfort during heat waves. Providing a fan for "cooling" is insufficient in the typical lightweight construction with limited insulation. It is most unreasonable that WestConnex evades its responsibility for the comfort of residents living near the roadways using opinion not based on scientific information.

The Tonin report provides no direction on the necessary noise controls required for light weight timber construction dwellings. Given the large number of such dwellings in the Inner West of Sydney, the Tonin report fails to provide a methodology for internalising noise pollution costs in such instances. The failure to do so is an attempt to allow project costs to understate the level of impact. This would have been averted had the Tonin report specified that the owners of such dwellings were entitled to have their dwelling replaced by a properly designed acoustic dwelling at no cost to the property owner. Such an approach is necessary as the WestConnex project has a 100 year life expectancy.

The WestConnex project must be required to provide all capital and operating costs for noise controls on affected properties. This requirement internalises the full cost of noise pollution instead of transferring that cost to residents. Noise pollution controls must be designed in conjunction with air pollution controls so that residents living in close proximity to WestConnex infrastructure are not exposed to any increase in risk arising from the project. The claim that WestConnex is world class is false when the project does not address health risks and fully internalise the costs of its externalities.

Renzo Tonin Acoustic Treatment Report July 2018 p45

Table 22 Residential at-property treatment on applicable facades

Treatment	Predicted exceedance of NCG external criteria, dB(A)[4]	At-property acoustic treatment
1a	<5	Install fresh air mechanical ventilation to affected rooms (see Notes 1 & 2)
1b	6-10	Treatment 1a + replace weather seals with acoustic seals on windows and doors + seal wall vents
2	11-15	Treatments 1a + 1b + replace existing glazing with thicker laminated glazing + provide solid core doors (see Note 3)
	>15	Treatments 1a + 1b + install supplementary window fitted with acoustic seals to inner side of existing window + provide solid core doors (see Note 3)

Notes

1. If internal noise goals can only be achieved with windows closed, then mechanical ventilation should be considered to ensure fresh airflow inside the dwelling so to meet the requirements of the Building Code of Australia.

2. It is important to ensure that mechanical ventilation does not provide a new noise leakage path into the dwelling and does not create a noise nuisance to neighbouring residential premises.

3. These upgrades are only suitable for masonry type buildings. It is unlikely that this degree of upgrade would provide noticeable benefits to light framed structures with no acoustic insulation in the walls.

4. Refer to exceedance column in Appendix G.

5. The Sydney climate zone is considered to be a warm temperate climate and is not impacted by prevailing adverse climate conditions. Fresh air ventilation when doors and windows are closed is managed by fresh air mechanical ventilation without the need for consideration of air conditioning.

Sydney Gateway Project

This project has appeared as being separate to WestConnex but has not been considered as part of the WestConnex environmental assessment. The St Peters area is a major focus of WestConnex as described previously in relation to the St Peters Tip. Road traffic issues associated with General Holmes Drive were identified as a major issue associated with the WestConnex project yet the Gateway Project was not identified as an integral part of WestConnex. It appears that NSW Planning and Environment failed to a cumulative assessment of the Gateway project in its requirements for the WestConnex EIS and in its assessment of WestConnex.

Air pollution arising from Kingsford Smith Airport (KSA) operations were not recognised in the air quality assessment in the WestConnex project. Air quality impacts arising from KSA were not identified as being on any concern in the St Peters area despite the installation of new tunnel stacks and a significant residential population.

Sydney Airport Corporation (SAC) has no published information on its air quality impacts. My search on SAC website reveals almost no mention of air quality. In comparison, I refer to information included in the air quality section of Zurich International Airport's web site available using the following link: https://www.zurich-airport.com/the-company/noise-policy-and-the-environment/air-quality/ Zurich Airport has similar aircraft movements to KSA with one difference being that KSA has a larger number of long haul flights. Zurich Airport has committed to reduce air pollution and has had an airport air quality monitoring network in place for many years. In contrast, SAC has remained silent on its air emissions and has no airport air quality monitoring in place. Zurich Airport has identified serious concerns with ultrafine particle emissions from airport operations and their effect on airport employees. The lack of air quality emission data published by SAC does not entitle WestConnex to exclude consideration of SAC air pollution. Both SAC and the Gateway project impact

predicted air pollution levels from WestConnex. WestConnex must account for this pollution in its claimed air quality impact assessment.

I have also examined SAC's National Pollutant Inventory data and the data it has submitted under the National Greenhouse and Energy Reporting (NGER). I have found that air pollution data provided was very much less than that provided by Zurich International Airport under the same reporting requirements. SAC data are also much less than that used in the NSW EPA's 2008 air emission inventory for the Greater Sydney Metropolitan Region. My analysis strongly suggests that the air quality impacts arising from the Gateway Project are linked with WestConnex and must be considered cumulatively.

It is understood that the intention of the Gateway Project is to increase KSA movements to 90/hour from 60/hour when the Third Runway was developed. The increased road traffic generated by the Gateway development coupled with the link to the St Peters WestConnex intersection means that the WestConnex project should also have included an assessment of traffic impacts in addition to the air quality impacts and this should have been part of the WestConnex EIS. The Tonin report commented on previously, should also have addressed cumulative road traffic noise levels.

Western Harbour Tunnel

The Western Harbour Tunnel (WHT) appears to have been included into a future phase of WestConnex to reduce the risk of a shortfall in tollway usage. The timing of its inclusion enabled it to be a future approval under the direction of NSW Planning and Environment. Its late inclusion contributed to the Sydney City Council alternative route for WestConnex being too late. The environmental issues arising from the WHT construction have not been adequately considered and options evaluated. WHT is now seen as having no other options. The current situation would have been avoided had a broad scope options review been undertaken in 2013 or even 2015. If the WHT does not proceed, does this transfer a greater financial risk to the viability of the WestConnex?

The Rozelle Interchange in conjunction with the Bays Precinct, Glebe Island and Concrete Batching plant development is a high risk area due to the existing road network and proximity to residential areas. To place the WHT into this area intensifies the risks. The failure of the WestConnex approvals to incorporate this risk into the approval for the Rozelle interchange is poor process and fails to act upon WestConnex claims of responding to public concerns.

The WHT is expected to cause additional traffic passing through the Rozelle interchange. Why was this traffic increase not considered in the planning approval for WestConnex. Step-by-step enlargement of the WestConnex project without providing an opportunity for review cumulative environmental assessment documentation suggests that the NSW Planning and Environment Department has been directed to provide uninterrupted approvals of each incremental step in WestConnex. This process is inconsistent with credible review and environmental assessment under the EP&A Act.

Conclusion

The Legislation Council inquiry provides an opportunity for critical examination of the WestConnex project. The holding of a public inquiry is appreciated. Accountability and transparency are hallmarks of effective public infrastructure service delivery. My analysis of the WestConnex project provides an explanation of why it failed to provide efficient and effective project development and delivery. The project was poorly scoped as evidenced by growth in its scale. Project governance enabled public scrutiny to be evaded. Cost blowouts have occurred due to project scope issues and poor site selection. Frank and fearless Government Department advice appears to have been supressed in the

interests of political expediency. Environmental outcomes arising from WestConnex construction and operation are and will be highly inferior due to regulatory failure. Predicted impacts on local residents have been ignored or claimed to be minimal and in either case requiring no further action. The WestConnex project provided the NSW Government to reduce motor vehicle air pollution in a transformational manner. Principles of polluter pays and deployment of available technology could have been used. Instead, the Government adopted a policy of minimalist action on air pollution permitting local residents to be exposed to higher levels of air pollution despite the known short and long term effects on people's health. Under WestConnex many local residents will be subject to higher levels of air pollution than that allowed under WHO guidelines. The NSW Government is unconcerned by this outcome. This is not satisfactory and it is hoped this inquiry will conclude that action must be taken to protect the health of these and future residents.