## SUBMISSION: WESTCONNEX M4-M5 LINK

The Hon. Anthony Roberts, Minister for Planning GPO Box 5341, Sydney NSW 2001

Dear Minister,


170 OCT 2017

I make the following submission in response to the Environmental Impact Statement for the M4-M5 WestConnex Link. I write to raise my strong objections and concerns about this project, namely:

- EXTENDED CONSTRUCTION: Construction in Haberfield and Ashfield will continue until at least 2022, with $24 / 7$ tunnelling set to continue for years. This is a breach of faith with our local community, which was promised that construction for WestConnex would end in 2019;
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- TRAFFIC AND PARKING: This project will significantly increase local traffic in Haberfield and Ashfield, including heavy trucks for further spoil movements. Light vehicle movements will dramatically increase as workers use parking lots proposed in the EIS. I am also very concerned about the proposal for Liverpool Rd/Hume Hwy Ashfield to be used as a spoil route;
- EXHAUST STACKS: I strongly oppose unfiltered exhaust stacks in our local community and am concerned about the lack of data on the cumulative impacts on air quality of both the M4 East and proposed M4-M5 Link; Unfiltered stacks proposed for St Peters and Rozelle are entirely unacceptable:
- LACK OF CERTAINTY: The "indicative" aspects of the EIS provide little certainty as to how the project will impact affected communities. I object to the fact the EIS has been released only weeks after closing submissions for the design concept plans. The subsequent Preferred Infrastructure Report must be be made available for public scrutiny and feedback;
- ROUTE: I urge you to investigate alternatives that mitigate the disaster that is the first two stages of WestConnex without further impacting inner west communities.


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#### Abstract

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but, as your would know with signage in Lilyfietd, you don't
care. this is obvious by your non-communication even after
the Lilyfield residents paid for their own independent report. Yours sincerely,

name: Jennifer Bertie
ADDRESS: 107 WARATAH ST,
HABERFIELD NS 2045
Emailjeni beattie @ bigpond.com
Phone: 0419989787.

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I am also concerned about:

suburb.

Yours sincerely,


NAME: Alan Beattie
ADDRESS: 107 WaratahSt
Habefield NSU 2045 Email:alan.beattie@ team. telstra.com

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lIam also concerned about: trucks and Buses pass Bland st. Because now so many trucks and Buses pass Bland st. the drivels damage the cars. Ow car had a big damaged by a bus. and he run awe without amy information A.
are damaged every day.
Yours sincerely.



Email:
Phone:

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NAME:

## Kate wall

ADDRESS: $\qquad$
Haberfield 2045
Email: Wall KalO4 2 g an ail. (OM
Phone: $\qquad$

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DUST IS CAUSING HEALTH \& ENVIRONMENTAL ISSUES:

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your use of our money to build a solution from last century that has already been proven to fail, when our money could be used to create a more liveable city, reducing our dependency on an outdated and unsustainable form of transport. Sychey will be poorer, hotter. unhappier, less efficient, resp equals sincerely, un healthier, and a progressive stock tocieties.

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Authorised by Jo Haylen MP, 299 Marrickville Rd, Marrickville 2204. Printed by Jeffries Printing, 5/71A Milperra Rd, Revesby NSW 2122 using parliamentary entitlements. October 2017.


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- Potential development of the Mhiro' site and Dan Murphy's site
as construction sites. As cansbucution sites. Bland st becoming rat runs! Remember we were told west Connex will "veturnstreeta to the people of Haberfield - Dump trucks using local road Yours sincerely,
name: Anthony Eccles


> ADDRESS: 3 Nichols AVE HABGRFLELD, 2045 Email: Kefjas2@bigfond.net.au Phone: OC 419 497418

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DATE: $\qquad$

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I am also concerned about: Oversized signage proposed for Waratah street Habo field, which contravenes the original concept that westconnep will take traffic away from local areas. This indicates that Waratah st will become a much larger artery than if currently is. Dangerous for the school children
Yours sincerely,


NAME: Belinda Racki
ADDRESS: 88 War otoh St, Haberfield NSW 2045 Email: emilyradie bigpond. com Phone:

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- EXTENDED CONSTRUCTION: Construction in Haberfield and Ashfield will continue until at least 2022, with $24 / 7$ tunnelling set to continue for years. This is a breach of faith with our local community, which was promised that construction for WestConnex would end in 2019;
- CONSTRUCTION SITES: Both the construction options spelled out in the EIS are unacceptable. Our community has lived through years of noise, dust and disruption, with very little enforcement of the Government's weak and ineffective conditions of approval. At minimum, construction times must be significantly reduced and there must be proper intra-agency coordination to ensure minimal impact for affected residents;
- TRAFFIC AND PARKING: This project will significantly increase local traffic in Haberfield and Ashfield, including heavy trucks for further spoil movements. Light vehicle movements will dramatically increase as workers use parking lots proposed in the EIS. I am also very concerned about the proposal for Liverpool Rd/Hume Hwy Ashfield to be used as a spoil route;
- EXHAUST STACKS: I strongly oppose unfiltered exhaust stacks in our local community and am concerned about the lack of data on the cumulative impacts on air quality of both the M4 East and proposed M4-M5 Link; Unfiltered stacks proposed for St Peters and Rozelle are entirely unacceptable; - LACK OF CERTAINTY: The "indicative" aspects of the EIS provide little certainty as to how the project will impact affected communities. I object to the fact the EIS has been released only weeks after closing submissions for the design concept plans. The subsequent Preferred Infrastructure Report must be be made available for public scrutiny and feedback;
- ROUTE: I urge you to investigate alternatives that mitigate the disaster that is the first two stages of WestConnex without further impacting inner west communities.

1 am also concerned about:


The Hon. Anthony Roberts, Minister for Planning GPO Box 5341, Sydney NSW 2001

Dear Minister,

I make the following submission in response to the Environmental Impact Statement for the M4-M5 WestConnex Link. I write to raise my strong objections and concerns about this project, namely:

- EXTENDED CONSTRUCTION: Construction in Haberfield and Ashfield will continue until at least 2022, with $24 / 7$ tunnelling set to continue for years. This is a breach of faith with our local community, which was promised that construction for WestGonnex would end in 2019;
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- ROUTE: I urge you to investigate alternatives that mitigate the disaster that is the first two stages of WestConnex without further impacting inner west communities.

I am also concerned about:


Yours sincerely,


NAME: MR•M•G•MCINERNEY
ADDRESS: 10 Denman Are
Haterfulel
Email:gerrymci@bigpondrcom Phone: $\qquad$

| Submission from: | Submission to: |
| :---: | :---: |
| Name: Sher Ali unar | Planning Services, |
| - | Department of Planning and Environment |
|  | GPO Box 39, Sydney, NSW, 2001 |
| Please include my personal information when publishing this submission to your website | Attn: Director - Transport Assessments |
| $\text { Address: } 23 \text { Cl...geanole RA }$ | Application Number: SSI 7485 Application |
|  | Application Name: WestConnex M4-M5 Link |

I submit this objection to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the following reasons, and ask that the Minister reject the application.
i. Table 6.1 in Appendix Q ( Social and Economic impact) is not an accurate report on the concerns of residents. It downplays concerns of Newtown, St Peters and Haberfield residents. It does not even mention concerns about additional years of construction in Haberfield and St Peters. The raises the question of whether this is a result of the failure of SMC to notify impacted residents including those on the Eastern Side of King Street and St Peters about the potential impacts of the M4 M5
ii. The impact of the project on cycling and walking will be considerable around construction sites. The promise of a construction plan is not sufficient. There has not been sufficient consultation or warning given to those directly affected or interested organisations. There needs to be a longer period of consultation so that the community can be informed about the added dangers and inconvenience, especially when you consider that it is over a 4 year period.
iii. I am appalled to read in the EIS that more than 100 homes across the Rozelle construction sites will be severely affected by construction noise for months or even years at a time. This would include hundreds of individual residents including young children, school students and people who spend time at home during the day. The predicted levels are more than 75 decibels and high enough to produce damage over an eight hour period. Such noise levels will severely impact on the health, capacity to work and quality of life of residents. NSW Planning should not give approval to a project that could cause such impacts. Promises of potential mitigation are not enough, especially when you consider the ongoing unacceptable noise in Haberfield during the M4East construction.
iv. I am completely opposed to approving a project in which the Air quality experts recommend rather than filtrating stacks extra stacks could be added later.
v. The EIS acknowledges that extra construction traffic will add to travel times across the Inner West and have a negative impact on businesses in the area. No compensation is suggested. These impacts are not been taken into account of evaluating the cost of WestCONnex.

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- There has been no independent consideration of alternatives, in particular of a major expansion of commuter rail transport. The Department should reject this inadequate EIS and have a review of the flawed processes that have already led to massive expenditure on the inadequate option of privatised toll roads. This proposal is out of step with contemporary urban planning.
- The EIS currently permits trucks to access local roads in 'exceptional circumstances', which includes queuing at the site. Given the constraints of the site (and based on experience with carsaccessing the site for Dan Murphy's), queuing will be the norm and not the exception. The EIS needs to be amended to rule out queuing as an exceptional circumstance which allows trucks to use local roads
- SMC have made it all but impossible for the community to access hard copies of the EIS outside normal working and business hours. The Newtown Library only has one copy of the EIS, and has extremely limited opening hours. Monday and Wednesday: 10am to 7 pm . Tuesday: 10 am to 6 pm . Thursday and Friday: 10am to 5 pm . Saturday and Sunday: 11 am to 4 pm . This restricted access does NOT constitute open and fair community engagement.
- The EIS identifies a risk to children from construction traffic at Haberfield School. I find such risks unacceptable and am not satisfied with a promise of a Plan to which the public is excluding from viewing or providing feedback until it is published.
- I object to the location of a permanent substation and water treatment plant following the completion of the project on the Darley Road site. This will limit the future uses of the land and the community has been continually assured that the land, which is Government-owned, would be available for community purposes. The presence of this facility will forever prevent the ability for safe and direct pedestrian access to the light rail stop, with users required to walk down a dark and winding path. It will also limit the future use of the site. If a permanent facility is to be located then it should be moved to the north of the site so that it is out of sight of homes and has less visual impact on residents.
- I am deeply disappointed that the EIS contains little or no meaningful design and construction detail. It appears to be a wish list not based on actual effects. Everything is indicative, 'would' not 'will', telling me nothing is actually 'known' for certain. This is a dangerous and reckless attempt to get approval for a project that is yet to be properly designed.
- I do not consider it acceptable that cycling/pedestrian routes should be changed for four years in Annandale and Rozelle in ways that will make cycling more difficult and walking less possible for residents with reduced mobility. These are vital community transport routes.

| I object to the WestConnex M4-M5 Link proposals as contained in the EIS application | Submission to: |
| :---: | :---: |
| \# SSI 7485, for the reasons set out below. |  |
| Cincictine MathzLr | Planning Services, <br> Department of Planning and |
|  | Environment |
| Signature:.... | GP0 Box 39, Sydney, NSW, 2001 |
| Please include my personal information when publishing this submission to your website | Attn: Director - Transport Assessments |
| Declaration : I HAVE NOT made any reportable political donations in the last 2 years. | Application Number: SSI 7485 |
| Address: lo Silves St | Application Name: WestConnex M4-M5 |
| Suburb: St. Peters $\qquad$ Postcode. $\qquad$ 2044 | Link |

i. Part 3 of the Secretary's Environmental Assessment

Requirements requires assessment of the likely risks of the project to public safety, paying particular attention to pedestrian safety. This is not addressed in Chapter 8.
ii. The original objectives of the project specified improving road and freight access to Sydney Airport and to Port Botany. We now have the proposals for Stages 1,2 and 3 and they don't even go to Port Botany or Sydney Airport. We are being asked to support Stage 3 of WestConnex on the basis of more major unfunded projects that are barely sketches on a map.
iii. We know the state government intends to sell the project, both the constructing and the operation. I object to the privatization of the road system. There is no guarantee of protecting the public interest in an efficient transport system when so much of it operates to make a profit for shareholders.
iv. The modelling shows severe degradation to the City West Link if the Western Harbour Tunnel is connected.
v. 602 homes and more than a thousand residents near Rozelle construction sites would be affected by noise sufficient to cause sleep disturbance even if acoustic sheds and noise walls are used..The EIS promises negotiation to provide even more mitigation on a one by one basis. This is not acceptable to me. As other projects have demonstrated, those with less bargaining power or social networks have been left more exposed. In any case, there is no certainty that additional measures would be taken or be effective.
vi. Whilst chapters 10 and 12 of Appendix H show midblock level of service at interfaces with interchanges and points within the tunnels, there is no information about other mid-block points such as the ANZAC Bridge. Part 8.3.3 of the EIS refers to increases in daily traffic forecasts on the Anzac Bridge/Western Distributor, particularly in the AM peak, as traffic accesses the M4-M5 Link and future forms of traffic or network management are intended. Information about the traffic forecasts for the Anzac Bridge/Western Distributor should be provided.
vii. I object to the way this project is hailed by the Minister for Western Sydney Stuart Ayres for the benefit of western Sydney when hardly any parts of Sydney west of Parramatta are even mentioned in the EIS. This is deliberately misleading. All the reasons for this stage of WestConnex are about linking the new M4 and M5 to the western harbour tunnel and northern beaches tunnel. Or they talk about links to the "Sydney Gateway" to the airport and Port Botany and they are not even part of this project.
viii. The EIS states that 'Impacts associated with property acquisition would be managed through a property acquisition support service.' There is no reference as to how this support service will be more effective than that currently offered. There were many upset residents and businesses who did not believe they were treated in a respectful and fair manner in earlier stages. The EIS needs to include details as to lessons learned from earlier projects and how this will be improved for the M4-M5 impacted residents and businesses. (Executive Summary xviii)

Campaign Mailing Lists : I would like to volunteer and/or be informed about the anti-WestConnex campaigns - My details must be removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties

## Attention Director

Application Number: SSI 7485
Infrastructure Projects, Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Application Name: WestConnex M4-M5 Link


I object to the WestConnex M4-M5 Link proposals for the following reasons:

* I am appalled to learn that more than 100 homes including hundreds of residents will be affected by noise exceedences 'out of hours' in the vicinity of Darley Road, Leichhardt. This will not just be for a few days but could continue for years. Such impacts will severely impact on the quality of life of residents.
* I am appalled to read in the EIS that more than 100 homes across the Rozelle construction sites will be severely affected by construction noise for months or even years at a time. This would include hundreds of individual residents including young children, school students and people who spend time at home during the day. The predicted levels are more than 75 decibels and high enough to produce damage over an eight hour period. Such noise levels will severely impact on the health, capacity to work and quality of life of residents. NSW Planning should not give approval to a project that could cause such impacts. Promises of potential mitigation are not enough, especially when you consider the ongoing unacceptable noise in Haberfield during the M4East construction.
: Residents of Haberfield should not be asked to choose between two construction sites. This smacks of manipulation and a deliberate attempt to divide a community. Both choice extend construction impacts for four years and severely impact the quality of life of residents. NSW Planning should reject the impacts on Haberfield as unacceptable. ( page 106)
* Daytime noise at 177 properties across the project is predicted to be so bad during the years of construction that extra noise treatments will be required. The is however a caveat - the properties will change if the design changes. My understanding is that the design could change without the public being specifically notified or given the chance for feedback. This means that there is a possibility of hundreds of residents being severely impacted who are not even identified in this EIS. I find this completely unacceptable.
* I do not accept the finding in the Appendix $P$ that there will be no noise exceedences during construction at Campbell Rd St Peters. There has been terrible noise during the early construction of the New M5. Why would this stop, especially given the construction is just as close to houses? Is it because the noise is already so bad that comparatively it will not be that much worse. This casts doubt on the whole noise study.
* I completely reject this EIS due to its failure to consider the alternative plan put forward by the City of Sydney.

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## I object to the WestConnex M4-M5 Link proposals as contained in the EIS

 application \# SSF 7485, for the reasons set out below.Name:


Please include my personal information when publishing this submission to your website Declaration :I HAVE NOT made any reportable politipal donations in the last 2 years.

Address:


Submission to:
Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link

- I am appalled that the Sydney Motorway Corporation could seek approval to build complex interchanges under the suburbs of Rozelle and Leichhardt on the basis of an EIS that is based on a concept design rather than detailed proposal that includes engineering plans.

0 Given the high cost of the tolls and their anticipated annual increase it is also expected that there will be an increase on traffic generally on local roads as motorists avoid the tollways. This can already be seen on Parramatta Rd immediately the new M4 tolls were activated. We expect exactly the same effect in the roads around the interchange, including the Princes Highway, King St, Edgeware and Encore Roads and through the streets of Erskineville and Alexandria.
$\checkmark$ I am concerned that while hundreds of impacts on resident, including noise, loss of business, dust, and lost time through more traffic congestion, are identified in the EIS, the approach is always to recommend approval and promise vague 'mitigation' in the future. This is not good enough.
$\checkmark$ The EIS indicates that 36 homes will have unacceptable noise impacts for extended periods at the Darley road construction site. The EIS does not mention the cumulative impact of aircraft noise in the Leichhardt or St Peters area, and therefore does not reflect the true impact of construction noise on the amenity of nearby residents and businesses. The noise impacts of construction are not able to be mitigated to an acceptable level and the EIS should not be approved on this basis.

0 The additional unfiltered exhaust stack on the north-west corner of the interchange will further increase the vehicle pollution in an area where the prevailing south and north-westerly winds will send that pollution over residences, schools and sports fields. The St Peters Primary School in particular will be at the apex of a triangle between the two exhaust stacks on the south-western and north-western corners of the interchange. This is utterly unacceptable.
$\checkmark$ Are there other potentially serious problems with Sydney Water utility services (described at EIS 12-57) or with other utilities in other suburbs or along the proposed M4-M5 tunnel alignment? If so, the EIS proposals and application should not be approved till these are all disclosed, researched, surveyed and the resolution publicly published.
$\bigcirc$ The impacts on The Crescent and Annandale are massive and were not sufficiently revealed in the Concept Design to enable residents to give feedback on the negative impacts on communities and businesses in the area.
$\bigcirc$ I do not consider so many disruptions of pedestrian and cycle ways to be a 'temporary' impact. Four years in the life of a community is a long time. The EIS acknowledges that there will be more danger in the environment around construction sites. It is a serious matter to deliberately take steps to reduce the safety of a community, especially when as the traffic analysis shows there will be a legacy of traffic congestion even in 2033. A promise of a plan is NOT an answer to those concerned about the impacts.

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$\qquad$

| Submission from: | Submission to: |
| :---: | :---: |
| Name:..... Da,orn.... Unhathorp | Planning Services, |
|  | Department of Planning and Environment |
| Signature: Mesonnley | GPO Box 39, Sydney, NSW, 2001 |
| Please include my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years. | Attn: Director - Transport Assessments |
| Address: ....17f68-70 Rangers.... Rd | Application Number: SSI 7485 Application |
| Suburb: ........remome NSW......Postcode.2090.... | Application Name: WestConnex M4-M5 Link |

I submit this objection to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the following reasons, and ask that the Minister reject the application.
I. The EIS admits that air pollutants will exceed permitted levels along the Canal Rd used to access the St Peters Interchange because the traffic will be heavier. This is an unacceptable impact which will adversely affect vehicle users because it is known that people in their vehicles are not protected from the air pollution, as well as anyone on foot or cycling in the streets around the interchange. No amelioration is offered.
II. The EIS states that traffic congestion around the St Peters Interchange is expected to be worse after completion of the M5 and the M4-M5 Link particularly in the evening peak hour. The EIS admits that this will have a "moderate negative" impact on the neighbourhood in increasing pollution (also admitted separately) therefore in health impacts, on safety for foot and cycle traffic but also for vehicles and on the local amenity.
III. The traffic around. St Peters expected to be heavier because of the increased road access to the new Interchange will adversely affect our community because moving around to our parks and to the shops, to the buses and to the train stations, for pedestrians and cars, will be more difficult. Our community is being sacrificed for the marginal improvement in traffic movement elsewhere in Sydney. No measures to ameliorate the impact are mentioned: This is unacceptable.
IV. The EIS admits that the increased traffic congestion around the St Peters Interchange will impact on bus running times especially in
the evening peak hour and increase the time taken ( 2.5 minutes, which seems optimistic).
The 422 bus and associated cross city services which use the Princes Highway are notorious for irregular running times because of the congestion on the Princes highway and cross roads, so an admitted worsening of the running time will adversely impact the people who are dependent on the buses. This will be compounded by the loss of train services at $S \dagger$ Peters station while it is closed for the Sydney Metro build and then subsequently when it reopens. In all the impact of the new M5 and the M4-M5 link is to worsen access to public transport significantly for the residents of the St Peters neighbourhood.
V. It is obvious the NSW government is in a desperate rush to get planning approval for the M4/M5. It has only allowed 60 days for comment yet the M4/M5 project is the most expensive and complicated stage of WestConnex. Critically, it involves building three layers of underground tunnels under parts of Rozelle. Such tunnelling does not exist anywhere in the world and as yet there are no engineering plans for this complex construction. Approval depends on senior staff in NSW Planning compliantly agreeing to tick off on the EIS, as was done with the New M5 and the M4. This demonstrates a wanton disregard for the safety of the residents of Rozelle and those who will be using the tunnel. WHAT IS THE RUSH?
A. The latest eis was released just ten
business days after feedback period ended

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1. The EIS claims to have saved Blackmore Park and Easton Park due to negative community feedback. I am concerned that this is a false claim and that this site was never really in contention due to other physical factors. I would like NSW Planning to investigate whether this claim is correct to have heeded the community is false or not.
2. It is clear that Annandale, Glebe, Rozelle and Lilyfield will be exposed to unacceptable health risks. With four unfiltered emissions stacks in the area plus a large number of exit portals, the residents of this area will suffer greatly from poisonous diesel particulates. This is negligent when you consider that, the World Health Organisation in 2012 declared diesel particulates carcinogenic. " As you are no doubt aware there are at least 5 schools that will be in the orbit of these poisonous fumes and children and the elderly are most at risk to lung ailments. Your Education Minister Rob Stokes declared in 2017, "No ventilation shafts will be built near any school."
3. No workers associated with the WestConnex project should be permitted to park on local streets. Parking is at a premium in this area and many residents to not have off-street parking. The removal of 20 car spaces for five years as is proposed on Darley Road will worsen this situation as will the removal of 'kiss and ride facilities' at the light rail. There is also a pre-DA application for 120 units on William Street which is not taken into account in the EIS. This will place further stress on parking. The EIS needs to outright prohibit any worker parking on local streets.
4. In the EIS there are indications of what is to be expected in the Rozelle Rail Yards construction site and the Crescent Civil site. But the EIS states that only after Construction Contractors have been engaged would project designs and methodologies be finally worked out and agreed. This may result in major changes to the project design and construction methodologies. The community will have no input into this process, so the community is totally powerless to be able to comment on what will actually be proposed, how it will be carried out and what will finally be built. This is not acceptable.
5. I object to the selection of the Darley Road site on the basis that the works required (demolition and surface works) will create unacceptable and unbearable noise and vibration impacts for extended periods. The EIS indicates that at least 36 homes will basically be unliveable during this period. In addition, the planned 170 heavy and light vehicles will considerably worsen the impact of construction noise.

Campaign Mailing Lists: I would like to volunteer and/or be informed about the anti-WestConnex campaigns - My details must be removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties

I object to the West Connex M4-M5 Link proposals as contained in the ElS application \#SSI 7485, for the reasons set out below.

Name:...
Signature:


Please Induce my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years.

Submission to:
Planning Services,
Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

## Attn: Director - Transport Assessments

Application Number: SSI 7485 Application
Application Name: WestConnex M4-M5 Link Suburb: $\qquad$ Postcode $20<2$

1. Rozelle Interchange and surrounds will experience increased traffic with associated noise and air pollution -most particularly at the Crescent, Johnson St and Catherine St, Annandale/Lilyfield/Leichhardt and Ross Street, Glebe. These streets are already highly congested at peak times and with a massive number of extra truck movements and traffic associated with construction, these streets will become gridlocked during peak times.
2. The EIS states that 'a preferred noise mitigation option' would be determined during 'detailed design'. This is unacceptable and residents have no opportunity to comment on the detailed designs. The failure to include this detail means that residents have no idea as to what is planned and cannot comment or input into those plans. (Executive Summary xvi)
3. All of the streets abutting Barley Road identified as NCA 13 (James Street to falls Street) should have a blanket prohibition on any truck movements and worker contractor parking. These hoems are already suffering the worst construction impacts of the work on the site and should be spared the further imposition of lack of parking and additional noise impacts. These streets are not constructed for heavy vehicle movements and on this basis should also be ruled out. The EIS needs to prohibit outright truck movements including parking) and worker parking on all of these streets.
4. There will be increases of noise in the area of Johnston St where traffic volumes will increase. Residents will be more susceptible to health impacts associated with increased noise. In the EIS it is stated that residents may have to keep their windows closed. They may well experience sleep disturbance and interference of living activities like eating outdoors. However the EIS considers this to be only moderately negative. This is not acceptable.
5. The Rozelle Rail Yards are a totally inappropriate area to create a new recreational area because the area will be highly polluted by unfiltered Pollution Stacks and Tunnel Portals. In the EIS it is referred to as an idealized area. "It is envisaged that the quantum of active recreation within the Rozelle Rail Yards would be further developed by others as projects such as The Bays Precinct are developed. The concept plan provides spaces that could include an array of active recreation opportunities and even community facilities such as gardens or a school." The suggestion that this would be a suitable location for a School is just beyond belief and demonstrates that those who have put these plans together are either staggeringly ignorant or totally delusional! At a time when major World cities are doing all they can to address the dire problems of pollution this is an appalling suggestion that is totally out of touch.
6. The EIS does not mention the impact of aircraft noise and its cumulative impact. As such, the noise levels identified are misleading. I object to the selection of the Darley Road site because of the unacceptable noise impacts it will have on surrounding homes and businesses.

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removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties
Name $\qquad$ Email Mobile $\qquad$

I object to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the reasons set out below.

Name:


Please include my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years.

Suburb:


Submission to:
Planning Services, Department of Planning and Environment
GPO Box 39, Sydney, NSW, 2001
Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link
I. The EIS at 7-51 refers to concerns that were raised by the community that the alignment of tunnels in Newtown appeared to go to the east of King Street, an area that had had no geotech drilling or testing. SMC staff indicated at Community information sessions that the maps included in the Concept Design were broad and indicative only, and that further details would be available in the EIS. No further details have been provided. This casts doubt over the integrity of the entire EIS process
II. The EIS at 7-41 acknowledges that there is great concern in the community that King Street, Newtown, will be made a 24 hour clearway, stating "Roads and Maritime has no plan to change the existing clearways on King Street". This statement is deliberately misleading - it infers that SMC has authority in controlling impacts on regional roads. Roads and Maritime have the unfettered right to declare Clearways wherever and whenever they wish, and RMS has NEVER stated publicly that King Street will not be subject to extended clearway.
III. Stage 3 is the most complex and expensive stage of WestConnex, yet there are no detailed construction plans. It is not enough to say there will be mitigation if negative impacts unfold. An EIS should assess risks and be able to predict whether they are worth risking and if so, what mitigation should be necessary.
IV. It is quite clear that the escalating cost of tolls will encourage drivers to avoid tollways. This will further pollute and congest local roads. Such impact already evident on Parramatta Rd usage after the new M4 tolls were introduced. The community expects similar impacts on roads around the St

Peters interchange, including the Princes Highway, King St, Encore and Edgeware Roads and though streets of Alexandria and Erskineville. The EIS Traffic analysis fails to deal with this issue of traffic beyond the boundaries of the project and should be rejected.
V. Increased traffic congestion in areas around portals will increase pollution along roadsides, with predicted adverse impacts on breathing and through long-term carcinogenic effects. The maps and analysis of the pollution effects in the EIS should be presented in a way that enables them to be understood by ordinary citizens. Instead information is presented in a way that is deliberately obscure and hard to interpret.
VI. EIS is Indicative only - The EIS should not be approved as it does not contain any certainty for residents as to what is proposed and does not provide a basis on which the project can be approved. The EIS states 'the detail of the design and construction approach is indicative only based on a concept design and is subject to detailed design and construction planning to be undertaken by the successful contractors.' The community will have no opportunity to comment on the Preferred Infrastructure Report which forms the basis of the approval conditions. This means the community will have limited say in the management of the impacts identified in the EIS. The EIS needs to provide an opportunity for the community to meaningfully input into this report and approval conditions.

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| Submission from: | Submission to: |
| :---: | :---: |
| Name:... HAR CE | Planning Services, |
| Signature:............................ | Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001 |
| Please include my personal information when publishing this submission to your website Declaration : I HAVE NOI made any reportable political donations in the last 2 years. | Attn: Director - Transport Assessments |
| Address: . 8 .... | Application Number: SSI 7485 Application |
| Suburb: WhtTME....C-00uf | Application Name: WestConnex M4-M5 Link |

I submit this objection to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the following reasons, and ask that the Minister reject the application.
A. There are overlaps in the construction periods of the New M5 and M4 of up to one year. This will significantly worsen impacts for residents close to construction areas. No additional mitigation or any compensation is offered for residents for these periods. (Executive Summary xxvii). It is unacceptable that residents should have these prolonged periods of exposure to more than one project. The EIS makes no attempt to measure or mitigate the cumulative impact of these prolonged periods of construction noise exposure.
B. Rozelle Rail Yards and Rozefle Civil Site.It is clear that the most highly affected area of Stage 3 will be the Rozelle area and the massive and hugely complex Rozelle interchange. The suggestion that Westconnex is capable of building this is highly questionable. Nothing like this has been built anywhere else in the World. Considering the simple problems of dust management, noxious gasses and the handling of toxic materials like asbestos that have been so inappropriately dealt with on Stages 1 and 2 by Westconnex this intersection of Stage 3 is a disaster waiting to happen and should definitely not be allowed to proceed without a massive investigation. What has been shown in the EIS is totally inadequate for this project to be allowed to proceed.
C. The tunnels under Rozelle/Lilyfield are going to be in three levels. The EIS does not explain what safety procedures are being built into the project to deal with situations like serious congestion, accidents or fire. With a serious hold up on the deepest of these tunnels it is clear that the air quality will very quickly become toxic unless substantial air conditioning is a major part of the design. There is no in depth detail about how these issues are going to be addressed. This is not acceptable.
D. Vegetation: Leichhardt. The mature trees on the Darley Road site should be preserved. If any trees are removed during construction it should be a condition of approval that they are replaced with mature trees.
E. Insufficient time has been given for the community to prepare submissions to the EIS, especially when one considers that whole neighbourhoods affected by the project were not even notified during the concept design period. e.g Newtown, east of King St.
F. 1.1599 residences or thousands of residents would have noise levels in the evening sufficient to cause sleep disturbance. The technical paper in EIS acknowledges that this is the case, even allowing for acoustic sheds and noise walls. Sleep disturbance has health risks including heightened stress levels and risk of developing dementia. This is simply not acceptable.

[^3]$\qquad$

Attention Director
Application Number: SSI 7485

Infrastructure Projects, Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Application Name: WestConnex M4-M5 Link


Iobject to the WestConnex M4-M5 Link proposals for the following reasons:

1. I object to the issue of this EIS only 14 days after the period for submission of comments on the concept design closed. There is no public response to the 1,000 s of comments made on the design and it seems impossible that the comments could have been reviewed, assessed and responses to them incorporated into the EIS in that time. This casts doubt over the integrity of the entire EIS process.
2. Research about roads clearly demonstrates that roads create congestion. The WestConnex project is no different and the EIS clearly indicates that this is an impact of the M4/M5 and the consequent roads that will follow. WHERE WILL THIS END AS THE m4/m5 Link EIS itself indicates the RMS is already hard at work considering how to solve these problems - of congestion caused by roads.
3. It has estimated that if construction goes ahead, some homes in Darley St Leichhardt will have a truck on average every 4 minutes just metres from their bedrooms. If experience in Haberfield, Kingsgrove, St Peters and Alexandria is anything to go by, residents can again expect the actual experience to be worse than predicted by the EIS. HOW IS THIS POSSIBLE? why have the serious and legitimate concerns raised by the residents not even been acknowledged.
4. The substation and water treatment plant should be moved to the north end of the site near the City West link. This will mean that the site is less visible to residents and most pedestrian access is at this end. There are no homes that will have direct line of site of the facility if it is moved. This will also enable direct pedestrian access to the light rail without the need to use the winding path at the rear of the site which creates safety issues and adds to the time required to access the light rail stop.
5. The warm and caring words contained in the EIS, ref Sustainability Management Strategy, have not been reflected in the wanton destruction of homes, trees and habitat already. Why should we believe them?
6. I am concerned that while the EIS finds that tolls do weigh more heavily on lower income motorists, there is no serious analysis of the blatant unfairness of letting of private consortium toll people for decades in order to pay for less profitable tollways for wealthier communities.
7. We object to the selection of the Darley Road site on the basis that it provides for daily movements of 170 heavy and light vehicles accessing Darley Road. This creates an unacceptable risk to the safety of pedestrians accessing the North Leichhardt light rail stop as well as bicycle users accessing the bicycle route on Darley Road and entering Canal road to join the dedicated bike paths on the bay run. Many school children cross at this point to walk to Orange Grove and Leichhardt Secondary College. The EIS states that an alternative truck movement is proposed which involves use of the City West Link with no trucks to access Darley Road. The selection of Darley Road should not be approved if it involves any truck movements on Darley Road, which is what it currently provides.
$\qquad$

I object to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the reasons set out below.


Please include my personal information when publishing this submission to your website
Declaration : I HAVE NOT made any reportable political donations in the last 2 years.
Address:
14 CHITA ST MARP/CKNILLE

Submission to:
Planning Services,
Department of Planning and Environment
GPO Box 39, Sydney, NSW, 2001
Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link

- Part 3 of the Secretary's Environmental Assessment Requirements requires assessment of the likely risks of the project to public safety, paying particular attention to pedestrian safety. This is not addressed in Chapter 8.
- The original objectives of the project specified improving road and freight access to Sydney Airport and to Port Botany. We now have the proposals for Stages 1,2 and 3 and they don't even go to Port Botany or Sydney Airport. We are being asked to support Stage 3 of WestConnex on the basis of more major unfunded projects that are barely sketches on a map.
- We know the state government intends to sell the project, both the constructing and the operation. I object to the privatization of the road system. There is no guarantee of protecting the public interest in an efficient transport system when so much of it operates to make a profit for shareholders.
- The modelling shows severe degradation to the City West Link if the Western Harbour Tunnel is connected.
- 602 homes and more than a thousand residents near Rozelle construction sites would be affected by noise sufficient to cause sleep disturbance even if acoustic sheds and noise walls are used. The EIS promises negotiation to provide even more mitigation on a one by one basis. This is not acceptable to me. As other projects have demonstrated, those with less bargaining power or social networks have been left more exposed. In any case, there is no certainty that additional measures would be taken or be effective.
- Whilst chapters 10 and 12 of Appendix H show midblock level of service at interfaces with interchanges and points within the tunnels, there is no information about other mid-block points such as the ANZAC Bridge. Part 8.3.3 of the EIS refers to increases in daily traffic forecasts on the Anzac Bridge/Western Distributor, particularly in the AM peak, as traffic accesses the M4-M5 Link and future forms of traffic or network management are intended. Information about the traffic forecasts for the Anzac Bridge/Western Distributor should be provided.
- I object to the way this project is hailed by the Minister for Western Sydney Stuart Ayres for the benefit of western Sydney when hardly any parts of Sydney west of Parramatta are even mentioned in the EIS. This is deliberately misleading. All the reasons for this stage of WestConnex are about linking the new M4 and M5 to the western harbour tunnel and northern beaches tunnel. Or they talk about links to the "Sydney Gateway" to the airport and Port Botany and they are not even part of this project.
- The EIS states that 'Impacts associated with property acquisition would be managed through a property acquisition support service.' There is no reference as to how this support service will be more effective than that currently offered. There were many upset residents and businesses who did not believe they were treated in a respectful and fair manner in earlier stages. The EIS needs to include details as to lessons learned from earlier projects and how this will be improved for the M4-M5 impacted residents and businesses. (Executive Summary xviii)

I object to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the reasons set out below.


Please include my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years.
Address:......................................NCE ST
Suburb: $\qquad$ Postcode

Submission to:

Planning Services, Department of Planning and Environment
GPO Box 39, Sydney, NSW, 2001
Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link
A. Rozelle Rail Yards will have 400 car parking spaces provided for workers(EiS). The daily workforce for these sites is stated to be approximately 550 . This means that 150 vehicles will need to park in nearby local streets which are already over-subscribed during weekdays by commuters taking the light rail.
B. There is a higher than average number of shift workers in the Inner West. The EIS acknowledges that even allowing for mitigation measures such as acoustic sheds and noise walls, shift workers will be more vulnerable to impacts of years of construction work and will consequently be at risk of a loss of quality of life, loss of productivity and chronic mental and physical illness.
C. There is no evidence provided in the EIS that the ventilation outlets will be date. The EIS simply states that 'the ventilation outlets would be designed to effectively disperse the emissions from the tunnel and are predicted to have negligible effect on local air quality (xiv, Executive Summary). This is inadequate and details of the impacts on air quality need to be provided so that the residents and experts can meaningfully comment on the impact.
D. EIS social impact study states that "the health and safety of residents should be prioritised around construction areas" - this is merely platitudinous in the light of the choice of Barley Rd the third most dangerous traffic intersection in the Inner West as a construction site.
E. SMC have made it all but impossible for the community to access hard copies of the EIS outside normal working and business hours. The Newtown Library only has one copy of the EIS, and has extremely limited opening hours. Monday and Wednesday: 10am to 7 pm . Tuesday: 10am to 6 pm . Thursday and Friday: 10 am to 5 pm . Saturday and Sunday: 11am to 4 pm . This restricted access does NOT constitute open and fair community engagement.
F. I am deeply disappointed that the EIS contains little or no meaningful design and construction detail. It appears to be a wish list not based on actual effects. Everything is indicative, 'would' not 'will', telling me nothing is actually 'known' for certain. This is a dangerous and reckless attempt to get approval for a project that is yet to be properly designed.
G. I strongly object to the proposed location of this permanent operational facility on Barley Road. The presence of this site contradicts repeated assurances to the community that the site would be returned after construction was completed. The ongoing presence of this site will limit future uses of the darley Road site which could serve community purposes, particularly given its location directly next to public transport. Its presence removes the ability to provide more accessible, safer and direct pedestrian access to the North Leichhardt Light Rail Station. The plant location, in a neighbourhood setting is not appropriate. It will reduce property values and have an unacceptable impacts on the visual amenity of the area. The streets adjacent to Darley Road are comprised of lowrise residential homes and small businesses and infrastructure such as this should not be permitted in such a location.

[^4]Name $\qquad$

| Submission to : Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001 | Name: Alec Colquhoul Signature: AColquharon |
| :---: | :---: |
| Attention: Director-Transport Assessments | Please Indude my persona/ information when publishing this submission to your website Dederation :/ HAVE NOT made any reportable political donations in the last 2 years. |
| Application Number: SSI 7485 Application Name: WestConnex M4-M5 Link | Address: 4 First Ave suburb: Gyonea Bay postcode 2227 |

I submit this objection to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the following reasons, and ask that the Minister reject the application
$\Rightarrow$ I am appalled to learn that more than 100 homes including hundreds of residents will be affected by noise exceedences 'out of hours' in the vicinity of Darley Road, Leichhardt. This will not just be for a few days but could continue for years. Such impacts will severely impact on the quality of life of residents.
$\Rightarrow$ This EIS contains no meaningful design and construction details and no parameters as to how broad changes and therefore impacts could be. It therefore fails to allow the community to be informed about and comment on the project impacts in a meaningful way.
$\Rightarrow$ The EIS at 7-25 refers to 876 comments (limited to 140 charatters) made via the cellaborative map on the Concept Design 'up to July' that were considered in the preparation of the EIS. It does not mention the many hundreds of extended written submissions that were lodged in late July and early August. These critical 'community engagement' feedback submissions have clearly not been considered in the preparation of the EIS. This casts doubt over the integrity of the entire EIS process.
$\Rightarrow$ The EIS states "Direct and indirect traffic disruptions are likely to be experienced on local and arterial roads in mest suburbs that are in close proximity to construction sites. This would include the suburbs of Ashfield, Haberfield, St Peters, Camperdown, Annandale, Lilyfield, Leichhardt, and Rozelle." Despite this finding, the study then pushes these negative impacts aside as
inevitable. There is never any evaluation of whether in the light of the negative impacts an alternative public infrastructure project might be preferable
$\Rightarrow$ Daytime noise at 177 properties across the project is predicted to be so bad during the years of construction that extra noise treatments will be required. The is however a caveat - the properties will change if the design changes. My understanding is that the design could change without the public being specifically notified or given the chance for feedback. This means that there is a possibility of hundreds of residents being severely impacted who are not even identified in this EIS. I find this completely unacceptable.
$\Rightarrow$ I object to the publication of this EIS only 14 days after the final date for submission of comments on the concept design. At the time this EIS was approved for publication, there had been no public response to the public submissions on the design. It was not possible that the community's feedback was considered let alone assessed before the EIS model was finalised. The rushed process exposes the fundamental lack of integrity in the feedback process and treats the community with contempt.
$\Rightarrow$ Many students walk or ride to Orange Grove and Leichhardt Secondary College schools via Darley Road.There are also a number of childcare centres very close to the Darley Road site.
$\qquad$
$\qquad$


I submit this objection to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the following reasons, and ask that the Minister reject the application.
$>$ Current noise measures - Leichhardt: The EIS states that 'reasonable and feasible work practices and mitigation measures would be implemented to minimise potential noise impacts due to activities occurring at the Darley Road civil and tunnel site.' 96-52) This is not good enough. The EIS does not contain any detail whatsoever of these proposal on which they can comment. In addition, there is no requirement that measures will in fact be introduced to address noise impacts. The approval conditions need to contain detail of specific noise mitigation measures that are mandated and can be enforced.
$>$ Acoustic shed - Leichhardt: The EIS does not require an acoustic shed and states that 'Acoustic barriers and devices at the access tunnel entrances would be considered and implemented where reasonable and feasible to minimise potential noise impacts associated with out-of-hours works within the tunnels.' (6-51) The EIS needs to mandate that these measures are in place. Where mentioned, the acoustic shed that is considered offers the lower grade noise protection. This is despite the fact that 36 'sensitive receivers' are identified in the EIS, who will have extreme noise disturbance through much of the 5-year construction period. In addition, the acoustic shed covers only the spoil and spoil handling area and not the tunnel entrances and exits. The highest level of noise protection, which is only suggested in the EIS, needs to be mandated in the EIS. In addition, the shed needs to cover both the entrance and exit to the site and not simply the spoil handling areas. The independent engineer's report (commissioned by the Inner West council) states that it is likely, because of the elevated position of the site, that it is likely an acoustic shed will not contain the noise to an acceptable level. In addition, a temporary access tunnel will be built from the top of the site and run directly under homes in James Street. These homes will be unacceptably impacted by the construction noise and truck movements without these additional measures.
$>$ Return of the site after construction - Leichhardt: The Darley Road site will not be returned after the project, with a substantial portion permanently housing a Motorways Operations facility which involves a substation and water treatment plant. This means that the residents will not be able to directly access the North Light rail Station from Darley Road but will have to traverse Canal Road and use the narrow path from the side. In addition the presence of this facility reduces the utility of this vital land which could be turned into a community facility. Over the past 12 months community representatives were repeatedly told that the land would be returned and this has not occurred. We also object to the location of this type of infrastructure in a neighbourhood setting.

[^5]
## Attention: Director, Infrastructure Projects, Planning Services Department of Planning and Environment, GPO Box 39, Sydney, NSW, 2001

Submission in relation to: Application Number - SSI 7485
Application name - WestConnex M4-M5 Link


I object to the WestConnex M4-M5 Link proposals as contained in the EIS application \#SSI 7485 for the reason(s) set out below.

## Truck routes

- I object to the EIS because it suggests that no local roads would be used by heavy vehicles during works yet at the same time acknowledges that spoil trucks may use local roads in exceptional circumstances which include when there is queuing to get into the site. Darley Rd is highly congested with traffic queues forming during much of the day which will lead to queues to enter the site. Queuing will not therefore be an exceptional circumstance and the result will be.that spoil trucks are able to use local roads without being in breach, which will be often. This is unacceptable to residents of Francis, Hubert, William and Charles St and I object to the EIS on this basis. As queuing cannot be avoided on Darley Rd this clearly shows why this location is inappropriate. The proponent should abandon a dive site completely or find a location directly on the City West Link where spoil trucks will never use local roads. Why should residents' lives be put at risk because the project must be delivered as soon as possible?
- I object to the EIS because it fails to describe the truck route options available to the proponent in relation to the Darley Rd site, which SMC have on many occasions told the community they are contemplating as alternatives.

The EIS states in 6.5.8 Darley Road civil and tunnel site (C4) that It is anticipated that the majority of construction traffic would enter the site from the southern (westbound) carriageway of Darley Road, Leichhardt via new driveways. Heavy vehicles associated with spoil haulage would travel eastbound on City West Link and turn right into Darley Road, Leichhardt. A temporary right turning lane at the intersection of City West Link and Darley Road, Leichhardt would be provided for use by construction vehicles. Heavy vehicles would exit the site by turning left onto Darley Road, Leichhardt before turning left onto City West Link.
'Construction traffic may also access the Darley Road civil and tunnel site (C4) via the westbound lanes of City West Link.'
'Temporary traffic management measures would be established to enable access and egress arrangements. These would be detailed in a CTAMP, which would be prepared to manage construction traffic associated with the project.'

1 object to the proposal for vehicles associated with spoil haulage to travel eastbound on City West Link and turn right into Darley Rd. This proposal is dangerous
and the impacts and risks are too great. Darley Rd is acknowledged by RMS to be a sub-standard road in terms of its construction. The intersection from the city west link is a steep blind turn even for traffic coming across from James St. This is followed by immediate left hand turns into both Francis St and Hubert St. A number of properties on Darley Rd would be at risk of destruction from spoil haulage trucks in the event of a truck having to brake suddenly to avoid stationary vehicles.

The proponent should abandon a dive site completely or find a location directly on the City West Link where spoil trucks will never use local roads. Why should residents lives be put at risk because the project must be delivered as soon as possible?

- I object to the EIS because it fails to describe the truck route options available to the proponent in relation to the Darley Rd site and instead allows for the final plan to be detailed in the CTAMP, Preferred Infrastructure Report or Ancillary Facilities Management Plan.

Peter Jones of SMC has on many occasions made representations to the community that his plan is to stage trucks from the port and eventually when possible to have them arrive and depart from the site underground when a tunnel is established between Leichhardt and the M4 East. He has also said that loading of spoil would take place underground at this time. He has recently told us of his plan to load trucks from a ramp off the city west link by means of a hopper conveyor which would pass over the Light rail station delivering spoil into silos below which trucks would pull up to receive their load. The laden trucks would then travel west bound along the city west link. None of this plan is detailed in the EIS.

I object to the fact that I am denied the opportunity to assess the impacts of all options. I object to the fact that I will have no right or opportunity to have input into the CTAMP, PIR or AFMP on matters which will have a devastating impact to me and to residents near 7 Darley Rd.

## Attention: Director, Infrastructure Projects, Planning Services Department of Planning and Environment, GPO Box 39, Sydney, NSW, 2001

Submission in relation to: Application Number - SSI 7485
Application name - WestConnex M4-M5 Link

| Name: WiM. Hockisay |  |
| :---: | :---: |
| Address: 113. CHARCES. SE <br> Post Code LLYFIES <br>  2040 | Suburb |
| Please include my personal information website <br> Declaration: Thave not made any reporta | ing this submission to your donations in the last 2 years. |
| Signed: | $\text { Date } \quad 10 / 9 / 17$ |

## - Tràffic and transport - construction worker parking

I object to the Civil and Tunnel Construction site at Darley Road Leichhardt because it is inevitable that workers will end up parking in streets near to the site and this will impact on residents in a number of ways.

- Residents will be competing for parking with both workers and commuters who already park in the streets near the light rail. Most houses in the streets near the site do not have off-street parking so residents are already pressed for parking spaces. During the renovation of the Darley Rd site for the Dan Murphys in 2016 workers parked in local roads like Charles St, Hubert St, Darley Rd and Francis St even when there was parking on site. This was of great inconvenience to residents especially those with young children and the aged. Residents had to complain to Woolworths and to the contractor Flexem on numerous occasions.
- Residents will be disturbed by workers arriving for or leaving from shifts at anti-social hours. Residents who work shifts and need to rest during the day will be disturbed by the additional noise of vehicles coming and going.
During the renovation of the Darley Rd site for the Dan Murphys in 2016 there were instances of workers parking with engines idling first thing in the morning disturbing residents.

I object to the Civil and Tunnel Construction site at Darley Road Leichhardt because there is no plan for worker parking and as a result the residents of Charles St, Hubert St, Darley Rd and Francis St will not be able to park on their streets and will be adversely impacted by worker parking.

The proponent should be required to abandon the Darley Road civil and tunnel site Leichhardt. Alternatives have been identified which provide adequate worker parking and the proponent has not given an adequate explanation as to why these alternatives have not been included in the EIS.

Iobject to the WestConnex M4-M5 Link proposals as contained in the EIS application


Submission to:
Planning Services,
Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director-Transport Assessments
Application Number: SSI 7485 Application
Application Name: WestConnex M4-M5 Link

1. Rozelle Interchange and surrounds will experience increased traffic with associated noise and air pollution-most particularly at the Crescent, Johnson St and Catherine St, Annandale/Lilyfield/Leichhardt and Ross Street, Glebe. These streets are already highly congested at peak times and with a massive number of extra truck movements and traffic associated with construction, these streets will become gridlocked during peak times.
2. The EIS states that 'a preferred noise mitigation option' would be determined during 'detailed design'. This is unacceptable and residents have no opportunity to comment on the detailed designs. The failure to include this detail means that residents have no idea as to what is planned and cannot comment or input into those plans. (Executive Summaryxvi)
3. All of the streets abutting Darley Road identified as NCA 13 (James Street to falls Street) should have a blanket prohibition on any truck movements and worker contractor parking. These hoems are already suffering the worst construction impacts of the work on the site and should be spared the further imposition of lack of parking and additional noise impacts. These streets are not constructed for heavy vehicle movements and on this basis should also be ruled out. The EIS needs to prohibit outright truck movements including parking) and worker parking on all of these streets.
4. There will be increases of noise in the area of Johnston St where traffic volumes will increase. Residents will be more susceptible to health impacts associated with increased noise. In the EIS it is stated that residents may have to keep their windows closed. They may well experience sleep disturbance and interference of living activities like eating outdoors. However the EIS considers this to be only moderately negative. This is not acceptable.
5. The Rozelle Rail Yards are a totally inappropriate area to create a new recreational area because the area will be highly polluted by unfiltered Pollution Stacks and Tunnel Portals. In the EIS it is referred to as an idealized area. "It is envisaged that the quantum of active recreation within the Rozelle Rail Yards would be further developed by others as projects such as The Bays Precinct are developed. The concept plan provides spaces that could include an array of active recreation opportunities and even community facilities such as gardens or a school." The suggestion that this would be a suitable location for a School is just beyond belief and demonstrates that those who have put these plans together are either staggeringly ignorant or totally delusional! At a time when major World cities are doing all they can to address the dire problems of pollution this is an appalling suggestion that is totally out of touch.
6. The EIS does not mention the impact of aircraft noise and its cumulative impact. As such, the noise levels identified are misleading. I object to the selection of the Darley Road site because of the unacceptable noise impacts it will have on surrounding homes and businesses.


I object to the whole of the WestConnex Project, and the specific WestConnex M4-M5 Link proposals as contained in the EIS application, for the following reasons, and request the Minister reject the application.
$\Rightarrow$ The business case is fatally flawed in a number of ways :

- It does not factor in the impact of longer total journey lengths on urban sprawl, which will have a flow-cost for infrastructure and servicing.
- It includes benefits from WestConnex supporting more compact commercial land use when this is generally not the result of motorway investment, and is unlikely to be in the area served by Stage 3.
- It does not attempt to cost the reductions in public transport, especially the loss of fare revenue.
- Ancillary road projects necessitated by WestConnex, such as the potentially $\$ 1 \mathrm{BN}$ Alexandria-Moore Park Connectivity Upgrade, should have been included in the Business Case.
- Impact on property values, costs of noise during construction, and loss of business should all have been costed and included in the Business Case
- Loss of heritage to the whole community (not just property owners) should have been included in the Business Case.
$\Rightarrow$ The Business Case for the WestConnex project (made up of the New M4, Irọn Cove Link and Rozelle Interchange, M4-M5 Link, New M5, King Georges Road Interchange upgrade and Sydney

Gateway was not adequate to justify moving to environmental impact assessment.
$\Rightarrow$ The Government is spending many billions of taxpayer dollars via Metro Rail to try and free itself of the restrictions of the City Circle that imposes a choke on the whole rail network, but is now replicating a the city circle with a 60 km road network. It does makes sense to focus a rail network on the centre of the densest employment and residential area of Australia, with the greatest economic output per square kilometre. However, it is the antithesis of common sense, practicality, economic productivity, property value creation, environmental planning, social planning and basic transport planning to replicate it with more motorways.
$\Rightarrow$ The M4-M5 Link enables the expansion of the WestConnex network to include the Western Harbour Tunnel, Beaches Link and M6. These motorway projects, were not part of the WestConnex business case and are not priority projects in any State or Federal roads plan.

I object to the WestConnex M4-M5 Link proposals as contained in the EIS
application \# SSI 7485, for the reasons set out below.


Submission to:
Planning Services, Department of Planning and Environment. GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link
> The EIS should not be approved as it does not contain any certainty for residents as to what is proposed and does not provide a basis on which the project can be approved. The EIS states 'the detail of the design and construction approach is indicative only based on a concept design and is subject to detailed design and construction planning to be undertaken by the successful contractors.' Therefore this entire process is a sham as the extent to which concerns are taken into account is not known as the contractor can simply make further changes. As the contractor is not bound to take into account community impacts outside of the strict requirements and as the contractor will be trying to deliver the project as quickly and cheaply as possible, it is likely that the additional measure proposed with respect to construction noise mitigation for (example) will not be adopted. The EIS should not be approved on the basis that it does not provide a reliable basis on which to base the approval documents. It does not provide the community with a genuine opportunity to provide meaningful feedback in accordance with the legislative obligation of the Government to provide a consultation process because the designs are 'indicative' only and subject to change. Because of this the EIS is riddled with caveats and lacks clear obligations and requirements of project delivery. The additional effect of this is that the community and other stakeholders such as the Council will be unable to undertake compliance activities as the conditions are simply too broad and lack any substantial detail.
> There are overlaps in the construction periods of the New M5 and M4 of up to one year. This will significantly worsen impacts for residents close to construction areas. No additional mitigation or any compensation is offered for residents for these periods. (Executive Summary xxvii). It is unacceptable that residents should have these prolonged periods of exposure to more than one project. The EIS makes no attempt to measure or mitigate the cumulative impact of these prolonged periods of construction noise exposure.
> The EIS states that there may be a 'small increase in pollutant concentrations' near surface roads. The EIS states that potential health impacts associated with changes in air quality (specifically nitrogen dioxide and particulates) within the local community have been assessed and are considered to be 'acceptable.' We disagree that the impacts on human health are acceptable and object to the project in its entirety because of these impacts. (Executive Summary xvi)
> The EIS is misleading because it discusses the creation of 14,350 direct jobs during construction. It omits the fact that jobs have also been lost because of acquisition of businesses, many of which were long-standing and employed hundreds of workers. (Executive Summary xviii)
> No noise barriers have been proposed. This is unacceptable and appropriate noise barriers should be included in the EIS for consideration. (Executive Summary xvii)

Campaign Mailing Lists : I would like to volunteer and/or be informed about the anti-WestConnex campaigns - My details must be removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties Name(lacqui fodyu Emailyacqui.9@hotmail.com_Mobile 042159289)

Submission to: Planning Services, Department of Planning and Environment. GPO Box 39, Sydney, NSW,2001

Attention Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link


I wish to register my strong objections to Stage 3 (M4-M5 Link). My reasons are set out below:

## 1. REASONS FOR WESTCONNEX

The main reason given for the construction of the WestConnex motorway is to connect to Sydney Airport and Port Botany. The project has failed to meet both of these objectives.

## 2. TRAVEL TIME SAVED?

If stage 3 of the Westconnex project is completed, it is predicted that by 2033, reductions in peak travel times from Western Sydney to the airport and to the Botany Port area will be miniscule. Parramatta to Sydney airport will save 10 minutes, between Burwood and Sydney Airport the time saved will be 5 minutes and between Silverwater and Port Botany the time saved will be $\mathbf{1 0}$ minutes. These are only the best predictions put forward and time savings may in fact be much less. The whole rationale for building this wasteful 18 billion dollar polluting project was precisely for that reason... to reduce travel times and to connect with Port Botany and the Airport.

## 3. SUBSIDENCE AND HOUSE DAMAGE

The EIS states that property damage due to ground movement "may occur", further stating that "settlement induced by tunnel excavation and groundwater drawdown may occur in some areas along the tunnel alignment". The risk of ground movement and subsidence is lessened where tunnelling is more than 35 metres underground. (Vol 2B Appendix Ep 1) The planned Inner West Interchange at Leichhardt, Lilyfield and Annandale proposes tunnels which are astonishingly shallow eg John St at 22m, Hill St at 28m, Moore St 27m (Vol 2B Appendix E Part 2), Catherine St at 28m (Vol 2B Appendix E Part 1). At these shallow depths, the homes above would indisputably sustain serious structural damage and cracking. Without provision for full compensation for damage there would be no incentive for contractors or Roads and Maritime Services to minimise this damage.

## 4. DEPTHS OF TUNNELS AND INCOMPLETE EIS DIAGRAMS

In response to enquiries made to the Westconnex Info line it was confirmed that the depths are measured from the excavation to the surface. Diagrams of the tunnel dimensions in the EIS only give 5.3 m as a minimum height. When further clarification was sought of the total height ie from the tunnel floor to the crown (top of the tunnel), Westconnex Infoline confirmed that 5.3 m is the 'minimum height', and when pressed further that there is an extra 2.2 m above this to allow for signage and jet fans, giving a total height of 7.5 m .
This is in contrast to information from staff at the Westconnex Information Balmain session who claimed the extra section above the minimum height of 5.3 m would be between 1 to 1.5 m .
It throws into confusion what the total height of the tunnels are and therefore the depths of tunnels below homes, which again the Information Session staff stated could be changed by the contractors. What are residents expected to believe? Yet Westconnex is asking residents to provide feedback on inadequate, conflicting information.

## Significantly, there is nothing in the EIS to ensure that tunnelling would be at a sufficient depth so as not to

 endanger the integrity of homes, including vibration, and noise impacts.Recent experience tells us that residents in the ongoing construction of Stages 1 and 2 have suffered extensive damage to their homes caused by vibration, tunnelling activities, and changed soil moisture content costing thousands of dollars to rectify, with their claims still not settled. Insurance policies will not cover this type of damage. The onus has been on residents to prove that damage to their homes was caused by Westconnex. Furthermore, the EIS actually concedes there will be moisture drawdown caused by tunnelling. There is nothing addressing these major concerns in the EIS. This is what residents living in the path of WestConnex are facing and it is totally unacceptable. In view of the above no tunnelling less than 35 m in depth from the surface to the crown of a tunnel (ie the top) under residences should be undertaken. And of course no tunnelling should be undertaken under sensitive sites.

## 5. HEALTH DANGERS

It is clear that Annandale, Glebe, Rozelle, Leichhardt and Lilyfield will be exposed to unacceptable health risks. With massive number of extra truck four unfiltered emissions stacks in the area plus a large number of exit portals, the residents of this area will suffer greatly from poisonous diesel particulates. This is negligent when you consider that, the World Health Organisation in 2012 declared diesel particulates carcinogenic. " As you are no doubt aware there are at least 5 schools that will be in the orbit of these poisonous fumes and children and the elderly are most at risk to lung ailments. Your Education Minister Rob Stokes declared in 2017, "No ventilation shafts will be built near any school."

## 6. AIR AND NOISE POLLUTION

Rozelle Interchange and surrounds will experience increased traffic with associated noise and air pollution-most particularly at The Crescent, Johnson St Annandale and Catherine St Leichhardt and Ross Street Glebe. These streets are already highly congested at peak times and with a massive number of extra truck movements and traffic associated with construction, these streets will become gridlocked during peak times. Also, the widening of The Crescent between the city West Link and Johnston Street with an extra lane being constructed will lead to heavy traffic congestion on a road that has $\mathbf{3}$ Primary/Infants schools.
Furthermore, the EIS states that the current Rozelle Interchange and surrounds of Anzac Bridge are presently close to full capacity. In fact, Anzac Bridge is currently at maximum capacity during peak hours. With the proposed construction, the area is going to be subjected to a huge increase in vehicle movements throughout the 5 year construction period.

## 7. TRUCK MOVEMENTS

The removal of spoil from the Rozelle Rail Yards will lead to the largest number of spoil truck movements on the entire Stage 3 project: $\mathbf{5 1 7}$ Heavy truck movements a day, of which 46 are stated to take place during peak hours. This will lead to extra noise and air pollution in this area.
The unacceptable noise levels which will accompany the construction of this massive interchange will further add to the discomfort of the residents. No analysis has been provided of the magnitude of increased noise pollution which will adversely affect residents. The EIS actually states that local residents may have to keep their windows and doors closed to keep out the noise and dust. The proposed work hours for construction in the Goods Yard for the tunneling and spoil removal are 24 hours a day, seven days a week. This could lead to loss of sleep for local residents as well as loss of lifestyle.
There will also be disturbance of soil in the old Rozelle Goods. Yard which may be thick with toxic contaminants such as lead and asbestos (as was the case in St Peters.) You made no provision for the safe removal of these toxic substances in St Peters and I do not see any provision in the EIS for their safe removal in this area.

## 8. LOSS OF PARKS AND OPEN SPACE

The removal of Buruwan Park between The Crescent and Bayview Crescent/Railway Parade, Annandale to accommodate the widening realignment of the Crescent would be a direct loss of much-needed parkland in this Inner City area. Further, Buruwan Park lies on a major cycle route from Railway Parade through to Anzac Bridge, IJTS and the CBD.

## 9. PROPOSED PARK

The proposed building of a park in the area of the Goods Yard right in the middle of a large number of exit portals and poisonous smoke stacks borders on being criminally negligent. This new 'recreational area' will be subject to the dangerous invisible particulates of 2.5 microns and smaller so many residents and children will be unaware that they are being poisoned. All evidence shows that these particulates are linked with increased cases of asthma, lung disease, cancer and stroke placing further pressure on our already overloaded health system.

## 10. RESIDENT CONSULTATION

Although the EIS indicates what is to be expected when construction begins, it also states that that only after Construction Contractors have been engaged would project designs and methodologies be finally worked out and agreed upon. This may result in major changes to the project design and construction methodologies. The community would have no say in this process!

## 11. CHANGE OF PLANS?

In the introduction of the EIS it clearly states that the information in the EIS is 'indicative of the final design' only. The reality of this statement means that the project may be completely different to stated plans in the EIS and shows the process is a sham.

Submission to:


Please include my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years.
Address: $3 / 16$ Taunstock St Suburb: Arumanare Postcode. 2047

Planning Services,
Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments

Application Number: SSI 7485

Application Name: WestConnex M4-M5 Link

* The Rozelle interchange has an unprecedented concentration of stacks, in a valley, adjacent to densely populated suburbs. The interchange has steep and long climbs, increasing emissions concentrations, which will then be pumped into the surrounding area. The modelling does not account for stop-start conditions. However, the EIS shows significant traffic volumes heading onto the Anzac Bridge, which already operates at the lowest Level of Service (F) in peak times. There will be significant queues heading into the tunnels, greatly increasing the level of emissions. The existing M5 in peak conditions may provide a more realistic base line.

The EIS states that the impact on regional air quality is minimal and thus concludes that the project's impact on ozone is negligible. Ozone is a major pollutant and Western Sydney, Campbelltown in particular, suffers the worst ozone pollution. Major components of ozone are generated in eastern Sydney and drift west. Previous environment departments have spoken about the need for an eight-hour standard concentration and goal for ozone (DECCEW, 2010, State of Knowledge: Ozone). OEH needs to provide information about the value of this standard and on the impact of new motorways on that level.

- In view of the above no tunnelling less than 35 m in depth from the surface to the crown of
a tunnel (ie the top) under residences should be contemplated let alone undertaken. And of course no tunnelling should be undertaken under sensitive sites.
- The EIS (App H, p.269) refers to the RMS plans to carry out "network integration" works surrounding the Rozelle interchange once the project is complete but offers little detail of the nature of the works. It mentions the intersection of the Western Distributor and Pyrmont Bridge Road at Pyrmont, Western Distributor near Darling Harbour and a review of kerbside uses near Western Distributor, The Crescent, Johnston Street and Ross Street.
- The analysis shows Anzac Bridge/Western Distributor is currently at or close to capacity, particularly in the AM peak where existing operational and geometric features of the road network limit the capacity. The EIS notes that under all scenarios the Project will generate significant additional traffic on these links, requiring major and costly additional motorway infrastructure to the CBD. This is despite the fact that the NSW Government recognises that there is no capacity to accommodate additional car trips to the CBD and all its policies aim to allocate more street space to public transport, walking and cycling. The EIS must assess and identify any upgrades that the Project will cause or require. (App Hp. xxxiii)


## Attention Director

Application Number: SSI 7485
Infrastructure Projects, Planning
Services,
Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

## Application Name:

WestConnex M4-M5 Link


## I object to the WestConnex M4-M5 Link proposals for the following reasons, and request the Minister reject the application, and require SMC and RMC to prepare a new EIS that is based on genvine, not indicative, design parameters, costings, and business case.

- There is no evidence provided in the EIS that the ventilation outlets will be date. The EIS simply states that 'the ventilation outlets would be designed to effectively disperse the emissions from the tunnel and are predicted to have negligible effect on local air quality (xiv, Executive Summary). This is inadequate and details of the impacts on air quality need to be provided so that the residents and experts can meaningfully comment on the impact.
- Rozelle Interchange and surrounds will experience increased traffic with associated noise and air pollution- most particularly at the Crescent, Johnson St and Catherine St, Annandale/Lilyfield/Leichhardt and Ross Street, Glebe. These streets are already highly congested at peak times and with a massive number of extra truck movements and traffic associated with construction, these streets will become gridlocked during peak times
- The EIS does not mention the impact of aircraft noise and its cumulative impact. As such, the noise levels identified are misleading. I object to the selection of the Darley Road site because of the unacceptable noise impacts it will have on surrounding homes and businesses.
- This EIS provides no basis on which to approve such a complex project including the building of interchanges underneath Sydney suburbs Rozelle and Leichhardt. It would be absurd to approve the building of up to three tunnels under people's homes on the basis of such flimsy information
- The impact of the deep tunnelling for the M4-M5 link - in addition to the tunnelling for the new Sydney Metro in the same area - in the Tempe, Sydenham, St Peters, Newtown and Camperdown and beyond is an unknown hazard to the soundness of the buildings above, and given that two different tunnelling operations will take place quite close, the people in those buildings will struggle to get repairs and compensation for loss because either contractor will no doubt blame the other. The increasing numbers of vehicles will also increase the vehicle pollution (known to have adverse effects on breathing and also to be carcinogenic) in this area.
- The EIS refers to be construction impacts as being 'temporary'. I do not consider a five year construction period to be temporary.


Submission to:

Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments

Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link

0 The Project focuses on 'catering for traffic growth' (P4.15). This contradicts and undermines the NSW Government's Long Term Transport Master Plan and Future Transport web site which commit to an integrated approach to congestion management focussed on land use planning, demand management, public transport investment and "a coherent whole of network planning strategy", essentially aiming for growth in public transport and containing road demand to that required to serve the freight and servicing tasks.

- The NSW Government appears to have accepted the project as part of a State. Infrastructure Strategy and other plans before a business case was even developed. There was no incentive to explore alternatives or to fully explore the costs and benefits. This process has been described as "lock in". Commitment escalates because a project appears in numerous policy documents. WestConnex is a clear example of government "locking in" commitment before detailed analysis had been undertaken. With the Government fully locked-in to WestConnex, these issues and inadequacies with the Updated Business Case are repeated in the EIS.

0 SMC have made it extremely difficult for the community to access hard copies of the EIS. The local Glebe library only has one copy and this is the situation at other local libraries. There are very limited hours of access to these locations outside normal working hours. Access to the EIS is very difficult without access to a personal computer. This totally restricts open community engagement.

- Crucially, to make the sale more attractive, the tunnels between Haberfield and St Peters will be built independently of the Rozelle Interchange. This is being done to de-risk the project for the private sector sale, as the tunnels can be built using known standards and technology and generate income from January 2023. It would appear that the building of the Rozelle Interchange is so risky that no contractor tendered for the contract in the original tender period.
- Noise impacts - Pyrmont Bridge Road site - The EIS indicates that residents will be subjected to severe noise impacts for up to 4 months, caused by the long-term construction work proposed for this site which includes 8 weeks to demolish buildings, followed by 6 weeks to establish construction facilities, with pavement and infrastructure works required (EIS, 10-112) The EIS contains limited mitigation proposed to manage such impacts.


## I object to the WestConnex M4-M5 Link proposals as contained in the EIS application \# SSI 7485, for the reasons set out below.



Please include my personal information when publishing this submission to your website Declaration : I HAVE NOT made any reportable political donations in the last 2 years.

Address:...1? 1

Submission to:

Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name: WestConnex M4-M5 Link

Suburb: $\qquad$
$\qquad$ Postcode $21 . .21$.
$\Rightarrow$ The justification for this project relies on the completion of other projects such as the Western Harbour Tunnel which has not yet been planned, let alone approved.
$\Rightarrow$ The proposal to run trucks so close to homes is dangerous. There have been two fatalities on Darley Road at the proposed site location. The EIS does not propose any noise or safety barriers to address this. Despite the unacceptable impact to nearby homes, there is no proposal for noise walls, nor any mitigation to individual homes.
$\Rightarrow$ Why are two different options being suggested for Haberfield? It is clear that both of these are unacceptable and will expose residents to unnecessary traffic danger, congestion and disruption with capacity to enjoy their homes and environment. It is insulting that the EIS acknowledges this but offers not solution other than to go ahead.
$\Rightarrow$ Rozelle is an old and historic suburbs of Sydney. The damage that this project would do in destruction of homes, other buildings and vegetation is unacceptable, especially when the project would leave a legacy of traffic congestion in the area.
$\Rightarrow$ The EIS states that Darley Road is a contaminated site, likely including asbestos. There is a risk to the community associated with spoil removal, transfer and handling. We object to the selection of the site based on the environmental risks that this creates, along with risks to health of residents.
$\Rightarrow$ The EIS states that property damage due to ground movement may occur. We object to the project in its entirety on this basis. The EIS states that 'settlement, induced by tunnel excavation, and groundwater drawdown, may occur in some areas along the tunnel alignment'. The risk of ground movement is lessened where tunnelling is more than 35 metres. However,
some tunnelling is at less than 10 metres. This proposed tunnel alignment creates an unacceptable risk of ground movement. In addition, the EIS states that there are a number of discrete areas to the north and northwest of the Rozelle Rail Yards, to the north of Campbell Road at St Peters and in the vicinity of Lord Street at Newtown where ground water movement above 20 milliliters is predicted 'strict limits on the degree of settlement permitted would be imposed on the project" and 'damage' would be rectified at no cost to the owner. would be placed (Executive Summary, xvii -iii). The project should not be permitted to be delivered in such a way that there is a known risk to property damage that cannot be mitigated to an acceptable level of risk.
$\Rightarrow$ There is a higher than average number of shift workers in the Inner West. The EIS acknowledges that even allowing for mitigation measures such as acoustic sheds and noise walls, shift workers will be more vulnerable to impacts of years of construction work and will consequently be at risk of a loss of quality of life, loss of productivity and chronic mental and physical illness.
$\Rightarrow$ I am completely opposed to approving a project in which the Air quality experts recommend rather than filtrating stacks extra stacks could be added later.
$\Rightarrow$ Permanent water treatment plant and substation Leichhardt The proposal to locate this permanent structure in a residential setting is opposed. The site will have a negative visual impact on the area and is in direct line of sight of a number of homes. If approved, the facility should be moved to the north of the site further from homes.

## Attention Director

Application Number: SSI 7485
Infrastructure Projects, Planning
Services,
Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

## Application Name:

WestConnex M4-M5 Link


> lobject to the WestConnex M4-M5 Link proposals for the following reasons, and request the Minister reject the application, and require SMC and RMC to prepare a new EIS that is based on genuine, not indicative, design parameters, costings, and business case.

- The EIS states that construction noise levels would exceed the relevant goals without additional mitigation. The additional mitigation is mentioned but not proposed. All possible mitigation should be included as a condition of approval. The EIS acknowledges that substantial above ground invasive works will be required to demolish the Dan Murphys building and establish the road. The EIS noise projections indicate that for 10 weeks residents will suffer unacceptable noise impacts. The EIS doeS not contain a plan to manage or mitigate this terrible impact. There is no detail as to which homes will be offered (if at all) temporary relocation; there are no details of any noise walls or what treatments will be provided to individual homes that are badly affected. The approval needs to contain detail as to how this unacceptable impact will be managed and minimised during the construction period and, in particular, during site establishment.
- The EIS states that there may be a 'small increase in pollutant concentrations' near surface roads. The EIS states that potential health impacts associated with changes in air quality (specifically. nitrogen dioxide and particulates) within the local community have been assessed and are considered to be 'acceptable.' We disagree that the impacts on human health are acceptable and object to the project in its entirety because of these impacts.
- The EIS states that there are 'investigations' occurring into alternative access to the Darley Road site. The EIS does not provide any detail on which residents can comment about alternative access which would keep trucks off Darley Road. No spoil truck movements should be permitted on Darley Road and the plans for alternative access should be expedited. It should be a condition of approval that the alternative access is confirmed and that no spoil trucks are permitted to access Darley Road due to the unacceptable noise, safety and traffic issues that the current proposal creates
- Removal of vegetation - Leichhardt. The EIS states that all vegetation will be removed on the Darley Road site. There are several mature trees located on the north of the site. None of these trees should be removed as they provide precious greenery. They also act as a visual and noise screen for residents from the City West Link traffic. All efforts should be taken to retain the trees and the EIS should not simply permit these trees to be removed without proper investigations being undertaken as to how they can be retained. If they are removed following a proper investigation and consideration of all options, then the approval needs to specify that all streets are replaced with mature, native trees at the conclusion of the construction at the site

| Attention Director Infrastructure Projects, Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001 | Name: DES SCOTT |
| :---: | :---: |
|  | Address: 3 EuSTON $R_{s}$ |
| Application Number: SSI 7485 | Suburb: HURLSTONE PARK Postcode 2193 |
| Application Name: WestConnex M4-M5 Link | Signature: |
|  |  |

l object to the whole of the WestConnex Project, and the specific WestConnex M4-M5 Link proposals as contained in the EIS application, for the following reasons, and request the Minister reject the application.

* The EIS states that property damage due to ground movement "may occur, further stating that "settlement induced by tunnel excavation and groundwater drawdown may occur in some areas along the tunnel alignment". The risk of ground movement is lessened where tunnelling is more than 35 metres underground. (Vol 2B Appendix Ep 1) The planned Inner West Interchange proposes tunnels which are astonishingly shallow eg John St at 22metres Hill St at 28metres Moore St 27metres. Piper St 37metres(Vol 2B Appendix E Part 2) Catherine St at 28metres(Vol 2B Appendix E Part 1). At these shallow depths, the homes above would indisputably sustain serious structural damage and cracking. Without provision for full compensation for damage there would be no incentive for contractors or Roads and Maritime Services to minimise this damage.
* Rather than ease congestion the project is likely to reduce the availability of funds for projects that enable that genuinely reduce congestion (road pricing), give priority for high productivity road users such as delivery and service vehicles or genuinely avoid congestion (public transport in separate corridors/lanes).
* The EIS projects increases in freight volumes without offering evidence as to how the project enables this. Assertions relating to improvements for freight services rely on the Sydney Gateway Project, which is not part of WestConnex, and which poses significant threats to the crucial freight rail
connection to Port Botany. Port Botany itself has questioned whether the current project provides any benefit to it.
* The most highly effected area of Stage 3 will be Rozelle with the massive and complex interchange. Nothing like this has been built anywhere else in the World and it is highly questionable as to whether it can be built at all in the form outlined in the EIS. The EIS does not show any detailed plans as to how this will be achieved. There are no constructional details at all, what is shown is a concept only, this is totally unacceptable.
* There is relatively limited urban redevelopment potential along the small section of Victoria Road that the Project would decongest, and this section is not been classified by the NSW Government as redevelopment area. To claim this as a benefit is misleading.
* Easton Park has a long history and is part of an urban environment which is unusual in Sydney. The park needs to be assessed from a visual design point of view. It will be quite a different park when its view is changed to one of a large ventilation stack. The suggestion that it has been 'saved' needs to be considered in the light of the severe 5 years construction impacts and the reshaped urban environment.

Wed Sep 202017
Attn: Secretary re WestConnex M4-M5 Link EIS, project number SSI 16_7485 I write to express my strong objection to the WestConnex M4-M5 Link EIS tollroad proposal.

Global experience of major toll roads demonstrates that these projects are enormously expensive and counter-productive. WestConnex will increase air pollution and global warming and encourage more car use, quickly filling the increased road capacity. It is not a sustainable solution to Sydney's congestion problem. The negative impacts on the health and well-being of local community's both in the construction and operation phases are unacceptable.

The fact that the State Government released this EIS just 2 weeks after submissions closed for comment on the M4-M5 Link Concept Design, undermines community confidence that this is a genuine consultation process.

The impending sale of over $51 \%$ of WestConnex means that the government will transfer the whole of WestConnex and the construction of M4-M5 Link project completely into the hands of a private company which will not give adequate protections to the community. In particular I object to the M4-M5 Link because:

1) it will induce more traffic into the Inner West with increases in congestion on already highly congested major roads and increased congestion on local roads as commuters avoid the expensive tolls.
2) it will increase the negative health impacts by increasing toxic fine particle pollution especially in the vicinity of the unfiltered ventilation stacks which are located near schools and homes.
3) it will destroy the Rozelle to Balmain rail corridor thus removing the option for a rail link to the Balmain peninsula and the White Bay precinct.
4) it will impose significant and unsustainable tolls on western Sydney communities who will not have adequate public transport alternatives.
5) it will lead to the imposition of more clearways on high streets in the inner west which will destroy businesses and community amenity.
6 ) it will potentially damage significant aboriginal and non aboriginal heritage in the inner west.

I have read the Department's Privacy Statement and agree to the Department using my submission in the ways it describes. I understand this includes full publication on the Department's website of my submission, any attachments, and any of my personal information in those documents, and possible supply to third parties such as state agencies, local government and the proponent.

Yours sincerely,

# SUBMISSION: WESTCONNEX M4-M5 LINK 

The Hon. Anthony Roberts, Minister for Planning GPO Box 5341, Sydney NSW 2001

Dear Minister,

I make the following submission in response to the Environmental Impact Statement for the M4-M5 WestConnex Link. I write to raise my strong objections and concerns about this project, namely:

- EXTENDED CONSTRUCTION: Construction in Haberfield and Ashfield will continue until at least 2022, with $24 / 7$ tunnelling set to continue for years. This is a breach of faith with our local community, which was promised that construction for WestConnex would end in 2019;
- CONSTRUCTION SITES: Both the construction options spelled out in the EIS are unacceptable. Our community has lived through years of noise, dust and disruption, with very little enforcement of the Government's weak and ineffective conditions of approval. At minimum, construction times must be significantly reduced and there must be proper intra-agency coordination to ensure minimal impact for affected residents;
- TRAFFIC AND PARKING: This project will significantly increase local traffic in Haberfield and Ashfield, including heavy trucks for further spoil movements. Light vehicle movements will dramatically increase as workers use parking lots proposed in the EIS. I am also very concerned about the proposal for Liverpool Rd/Hume Hwy Ashfield to be used as a spoil route;
- EXHAUST STACKS: I strongly oppose unfiltered exhaust stacks in our local community and am concerned about the lack of data on the cumulative impacts on air quality of both the M4 East and proposed M4-M5 Link; Unfiltered stacks proposed for St Peters and Rozelle are entirely unacceptable; - LACK OF CERTAINTY: The "indicative" aspects of the EIS provide little certainty as to how the project will impact affected communities. I object to the fact the EIS has been released only weeks after closing submissions for the design concept plans. The subsequent Preferred Infrastructure Report must be be made available for public scrutiny and feedback;
- ROUTE: I urge you to investigate alternatives that mitigate the disaster that is the first two stages of WestConnex without further impacting inner west communities.

I am also concerned about:
 in Icel hail yes a now appears not to be lase aldo lilo areas no turin fer pallonds

Yours sincerely,
NAME: NR TD cOHAN


ADDRESS: UnTt101 47.51 Llextiker don Rozhen rat
Email: uff@cipmotrai.cm. an
Phone: 0428 $228^{\circ}$ <cl

Minister for Planning GPO Box 5341, Sydney NSW 2001

270 CT 2017

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- ROUTE: I urge you to investigate alternatives that mitigate the disaster that is the first two stages of WestConnex without further impacting inner west communities.

I am also concerned about:

Yours sincerely,



Email:
Phone:


From:
Sent:
Mon, 16 Oct 2017 07:10:37 +0000
To:
Subject: FW: Submission Details for company Rozelle Against WestConnex (org_object)
Attachments: 228259_113 Sub 113 Lane Cove Tunnel Action Group_2017Oct16_1800.pdf, 228259_Bottleneck! PDF_2017Oct16_1800.pdf, 228259_RAW Stage 3 EIS Submission Final Draft_2017Oct16_1800.pdf

From: system@accelo.comOn Behalf OfPeter Hehir
Sent: Monday, 16 October 2017 6:01:42 PM (UTC+10:00) Canberra, Melbourne, Sydney To:
Subject: Submission Details for company Rozelle Against WestConnex (org_object)
Confidentiality Requested: no
Submitted by a Planner: no
Disclosable Political Donation: no
Name: Peter Hehir
Organisation: Rozelle Against WestConnex (Convenor)
Govt. Agency: No

Address:

Rozelle, NSW
2039

Content:
RAW wishes to object to the Stage 3 EIS in the most strenuous \& cogent terms possible as it will not achieve its stated aims and will actually worsen the traffic congestion in the Inner West

The 7,000 pages contain little that is definite and as such can't be considered to be an Environmental Impact Statement. The traffic modelling is flawed. The Anzac Bridge is currently beyond capacity. This proposal will only ensure that morning and evening peak hours will be extended with Victoria Road, White Bay, the Iron Cove Bridge, Parramatta Road and King Street in gridlock for four or five hour periods twice daily.

The importation of tons of cancer causing pollution distributed via the 4 unfiltered stacks in Rozelle will clearly result in significant health impacts on those in Rozelle and the surrounding suburbs, along with the inevitable premature \& painful deaths because of the cancers that will inevitably follow. The resulting huge impost on an already overburdened health system has not been factored into the Business Case Study.

The RMS and the NSW Government have continued to lie about the benefits of the tolled tunnels. Dr Ray Kearney in 2006 has produced documents in relation to the M5 East, the Lane Cove Tunnel and the Cross City Tunnel that clearly show the RMS has falsified data, continually misled the public about 'best practice worldwide' and the 'effectiveness of filtration'. Dr Kearney's work when published was so heavily redacted as to be incomprehensible. His objections and comments have been included again, with his
permission, as they are even more valid now some 11 years later.
This brutal project can't be justified on any grounds and if the decision of the Minister is to be weighed on the basis of substance and merit it clearly must be rejected as being the most regressive and wasteful step ever proposed in the history of this country.

WestConnex is a criminal act by the NSW Government \& amounts to a declaration of war on a geographical area that has clearly rejected the policies of both major political parties. This is simply a cynical payback in the form of an immoral, antisocial, and environmental assault on the residents of the Inner West.

The recommendation of the Department of Planning must be arrived at through careful consideration of the many thousands of objections that have already been lodged and that the recommendation must be made based solely on merit. Staff should not abrogate their responsibilities as they have so obviously done with Stages 1 and 2 and should make a recommendation that is in the best interests of all of the people of Sydney.

The DEP must not simply rubber stamp this sickening proposal but must have the courage to tell their political masters not what they want to hear but that 'the emperor is indeed wearing no clothes'.

Finally this submission is to be read in conjunction with the 3 attachments below.
Sincerely
Peter Hehir
Convenor
RAW Rozelle Against WestConnex

# Submission: Online Submission from company Rozelle Against WestConnex (org_object) https://majorprojects.accelo.com/?action=view activity\&id=228259 

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# Inquiry into Cross City Tunnel 

| Organisation: | Lane Cove Tunnel Action Group Inc |
| :--- | :--- |
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| Date Received: | $25 / 05 / 2006$ |

Theme:

Summary


The Director<br>Joint Select Committee on the Cross City Tunnel<br>Parliament House<br>Macquarie St<br>Sydney 2000

Dr Ray Kearney, Chairman, Ms June Hefferan, Deputy Chair Lane Cove Tunnel Action Group Inc Phone: 93513590 (w)

Dear Ms Simpson,

## RE: Submission to the NSW Parliamentary CCT - LCT Inquiry

The Lane Cove Tunnel Action Group Inc (LCTAG), as a member of the coalition of Groups Against Stack Pollution (GASP), wishes to make a submission to the Inquiry into the Cross City Tunnel (CCT) and Lane Cove Tunnel (LCT) in relation to the following additional prescribed Terms of Reference:

## Terms of Reference of the Inquiry into the Lane Cove Tunnel

g) the role of Government agencies in relation to the negotiation of the contract with the Lane Cove Tunnel Consortium,
h) the extent to which the substance of the Lane Cove Tunnel contract was determined through community consultation processes,
i) the methodology used by the Roads and Traffic Authority for tendering and contract negotiations in connection with the Lane Cove Tunnel, and
j) any other related matters.

We also wish to advise that there is inevitably some overlap in our present comments with those regarding the LCT Project reported in our earlier Submission, dated 18 January, 2006, to the Committee.

## Declaration

This Response has been undertaken with the best of our ability and knowledge, based on materials, documents available and current information, as well as more than 15 years involvement with the LCT from its earliest beginnings.
Its presentation is true and does not, by its presentation of information or omission of information, materially mislead or intend to materially mislead.

Ray Kearney
Chairman
Lane Cove Tunnel Action Group Inc.

June Hefferan
Deputy Chair

## LCTAG Inc

## An Objective of LCTAG

A cornerstone of the Lane Cove Tunnel Action Group's (LCTAG) mission is to achieve the construction of a twin three-lane 3.7 km -continuous tunnel with the installation and operation of air-pollution treatment systems to reduce adverse health impacts. This objective was based upon independent expert advice from consultants in tunnelling design and construction as well as from air-filtration consultants at both national and international levels.
Our commitment to this mission is also based upon the inescapable fact that vehicle emissions are injurious to the health of everyone exposed to them. "At risk" persons such as children, asthmatics, the elderly and pregnant women are especially affected by both short and cumulative exposures, even below prescribed National standards.

## The Lane Cove Tunnel Action Group Inc (LCTAG)

LCTAG is a coalition of 15 groups drawn from the residential, commercial and industrial sectors of Lane Cove. The Action Group was formed over ten years ago to seek the construction of a 3.7 km , bore-driven, twin three-lane tunnel with the installation of air-cleaning technologies (electrostatic precipitators and activated carbon beds) that also negate the need for unsightly ventilation stacks.
It was indeed the LCTAG who proposed:

- The continuous long bore-driven by-pass tunnel as the most acceptable alternative to RTA's proposal to widen Epping Road or to construct a short 'cut and cover' tunnel.
- The route of the present LCT.
- The most suitable and recommended site for the western tunnel exit/entrance or portal being on the RTA land at the intersection of Mowbray Road and Epping Road. However, to thwart the proposal, the RTA sold its land and in arrangements with the City of Willoughby Council had the site re-zoned to 'residential' to make way for a developer to build townhouses on the site. The naivety of the RTA was realized when the LCTAG tunnel proposal was independently published, by us, in the North Shore Times that forced the former Roads Minister Carl Scully to finally accept the LCTAG proposal. Today, the RTA is left with the only option to carve into the middle of Epping Road to build the western portal. By doing so the RTA had to compromise a needed 3lane entry with only 2-lanes as they had already sold their land for townhouses. Thus, the RTA today has compromised surface traffic on Epping road by destroying more lanes from the surface road. Therein is the truth to the background of why the east-bound tunnel carriage-way begins with a compromised 2-lane entry, rather than the 3-lane entry, originally recommended by LCTAG on expert engineering advice.
The LCTAG is also part of a coalition with the M5-East Residents Against Polluting Stacks (RAPS) as well as those affected by the Cross City Tunnel i.e., Sydneysiders Against Polluting Stacks (SAPS) and the Cross City Tunnel Action Group (CCTAG). This coalition of concerned communities continues to campaign under the name of Groups Against Stack Pollution (GASP).


## 1. Term of Reference g)

## g) The role of Government agencies in relation to the negotiation of the contract with the Lane Cove Tunnel Consortium.

### 1.1 A 'Structure of Harm' by Government and Corporate Connivance

That corporate wealth buys broad influence in law and public policy is well documented and widely acknowledged.
Occupational and environmental diseases are often viewed as isolated and unique failures of science, the government or industry to protect the best interest of the public. However, they are frequently an outcome of a pervasive system of corporate priority setting, decision making, and influence with political and bureaucratic stakeholders. This 'structure of harm' is based on corporations compelled to maximize profitability while costs to society such as from pollution are largely ignored.
The system in NSW, revealed recently in 'privileged' documents released in NSW Parliament, produces disease because political, economic, regulatory and ideological norms prioritize values of wealth and profit over human health and environmental well-being. In other words, the current economic and political system in NSW privileges corporate actors and tends to provide incentives for the production of injury and disease rather than its prevention.
The tabled documents revealed that the NSW Government and certain of its bureaucracies appear to have forfeited a legislative and constitutional role as servants of the public and have aligned themselves with corporate stakeholders in the design, construction and operation of traffic tunnels in Sydney. What is now clear is the social and environmental costs of Sydney's long road tunnels have been ignored by externalizing them, or shifting costs to the government (taxpayers), residents, neighbours, motorists and workers.
Even more deplorable is that the documents disclose the RTA has agreed to indemnify the tunnel companies for costs, charges and expenses or for claims or losses should a court find that environmental assessment or determination of the 'Tunnel' including the Ministers Condition of Approval fails to comply with the Law or is invalid in any respect. The RTA has indemnified the respective company in relation to any investigation or 'legal challenge'. It is noteworthy that in September 2004, the NSW Government closed their air-quality monitoring station near the Cross City Tunnel (CCT) thereby removing evidence of local high pollution levels and thwarting potential litigation by residents affected by pollution from the toxic CCT exhausts together with that generated by gridlocked surface traffic. The NSW Government's reason that it was unaffordable to maintain the monitor is hardly credible when in June, 2002 the RTA paid $\$ 9,110,375$ to acquire land with a market value of $\$ 4,520,250$ to build the eastern stack for the Lane Cove Tunnel.
The 'secret' Deeds of Contract appear to protect the companies from paying 'restitution' of the injured through the payment of unenforceable compensatory fines, capped by the RTA for the Cross City Motorway Company at $\$ 5$ million, rather than criminal penalties. The failure to impose fines is the experience with the M5 East tunnel debacle where numerous breaches of the Ministers Conditions of Approval are on record. Thus, the costs never approach the economic advantage that accrues to the companies that perpetuate these injuries and escape liability. In other words the RTA has made it cheaper for the companies not to install proper filtration and thereby inflict sickness and potential death on the community exposed to toxic stack pollution.
It seems reckless to discharge additional toxic hazards wilfully into Sydney's air-shed that is already exceeding National Standards for harmful fine particles. The interlinked RTA-Corporate goal of profit maximization exceeds any future compensation cost. Twice as many people die from exposure to vehicle exhaust in Sydney than from road accidents. Total health impacts cost \$2-3billion annually for Sydney alone.
In shoring up the profits of its corporate co-partners, the RTA has over the past few years embarked on an utterly misleading campaign to discredit tunnel filtration. Some of its strategies have included:

- Former Roads Minister Carl Scully reinforced the RTA propaganda by his refrain that "Tunnel filtration is unproven technology and is only a high-tech placebo". This emotive claim was demonstrably false. .
- The RTA, with government and ministerial fanfare, announced two 'filtration trials' to appease community anger. These trials would have been too small to enable any conclusions and appear to have been abandoned.
- A comparative analysis of tabled documents shows hand-written notes taken at the time by one of the RTA delegates who visited Japan in September/October, 2003 to inspect tunnel filtration bear little relationship to the formal RTA Report on Japan's Tunnel Filtration. The final report downplayed significantly both the extent and the effectiveness of filtration in Japan.
- RTA and NSW Health rejected the findings of three independent consultants commissioned by Lane Cove Council. The consultants recommended unanimously that the negative findings from NSW Health's Study of Residents Affected by the M5 East Stack be rejected on several grounds including a flawed methodology that skewed the results to a 'no risk to health' conclusion. This did not occur, even after the Department of Health discovered that significant portal emissions were occurring during the time of the survey. These would have caused a skewing of the results as the people in the survey were in fact receiving a considerably lower pollution load at that time than in normal circumstances.
- It appears that the proportional increase in privileged documents in a recent Parliamentary Call for Papers is a reflection of the bureaucratic desire to keep their 'business' secret. It was a 'declassified' report that disclosed in 2004 that medical specialists concluded from the M5 Phase1 health study that there was prima facie evidence that illnesses reported by local residents were causally related to stack emissions. Shocked by this unplanned disclosure, NSW Health designed a Phase 2 study, proven so defective and methodologically flawed, that the predictable findings would show no causal relationship.
Lane Cove Tunnel Action Group (LCTAG) believes there is not only an obligation of 'due diligence' by the Regulatory Authorities (RTA, DEC, Health and DoP) but also on the respective tunnel consortia to implement proven measures to clean and detoxify the polluted tunnel air-stream where the poisonous components are derived almost entirely from the combustion of fossil fuels, mainly petrol and diesel. Such measures would be consistent with the Precautionary Principles.

LCTAG also believes that to date, the NSW RTA and the respective tunnel corporate stakeholders, have failed to exercise such care, skill and foresight that would be expected of a reasonable corporation and this failure helps remove a defence of 'due diligence' by ignoring such facts. Indeed, the failure of the RTA and the respective companies could be interpreted now as a wilful and premeditated decision not to adopt preventive or precautionary measures. Such a decision implies a deliberate intention to discharge untreated toxic waste, knowing it has the potential to harm or be likely to harm the environment, including those 'most at risk' in a community who are already described in documents, known to the RTA and to the Consortia as the "most affected receptors."

The RTA, in particular, seem not to exercise 'due diligence' by knowingly and negligently intending to discharge higher levels of toxic waste from the M5 East, CCT and the re-designed Lane Cove Tunnel (LCT) in a manner likely to cause harm. To date, LCTAG alleges that neither the RTA nor the respective tunnel consortia (M5 East, CCT and LCT) has volunteered the truth about traffic volumes . or the real pollution levels. LCTAG also understands that a defence of 'due diligence' is established if a company commissions the offence due to causes over which they had no control; and that they took reasonable precautions and exercised due diligence to prevent the offence.
Put squarely, LCTAG believes, the government agencies in forfeiting their public service duties to the electorate by aligning themselves with corporate stakeholders have betrayed the communities whom they are meant to serve.

### 1.2 RTA Rejected Tenders for LC Tunnel Filtration

The most recent tabled documents in 2006 for which privilege was lifted by the Independent Legal Arbiter on grounds that they are of public interest have disclosed, again, a litany of scandals perpetrated mainly by the NSW RTA.

Documents confirm that at the time when tenders were called for the LCT project, various consortia submitted two different types of tenders as is conventional and legal practice. A 'compliant' tender is a proposal that meets the Ministers Conditions of Approval (MCoA) for the project. The other is an 'alternative' or 'add-on' proposal which not only fulfills the MCoA but incorporates additions ormodifications e.g., to enhance design outcomes and cost effectiveness of the project.
It is significant that a number of alternative bids were submitted. These incorporated technology and design changes which the respective bidders claimed would improve air quality - both in the tunnel and in the external atmosphere. However, without proper consideration, the RTA rejected all 'add-on' tenders that incorporated filtration and air-cleaning technology. The legality of such alleged conduct by the RTA should be tested formally.
In December 2003, the RTA signed the Project Deed with the successful bidder. The RTA, rejected 'add-on' proposals for superior treatment of particulate and gaseous emissions in the LCT. Privileged papers disclose one such proposal guaranteed the treatment system of the tunnel pollution "would deliver significant environmental benefits" and tabulated the following key benefits:

- reduced emission of particulates, CO , and NOx
- net reduction in emissions of $\mathrm{CO}_{2}$
- enhanced dispersion of exhaust air
- improved external air quality
- increased power supply reliability provided by 90 MW of embedded generation capacity
- net revenue gain from generated power
- reduction in greenhouse gas production in NSW attributable to tunnel operations
- environmental benefit from carbon credits

The tenderer indicated that changes to the Project Deed would apply. However, the RTA rejected all such 'add-ons' without any appraisal.

### 1.3 RTA suppression of Filtration Facts

The RTA was already fully aware filtration technology was proven, effective and efficient, before the contract with the successful bidder - the Lane Cove Tunnel Company (LCTC) - was signed in December, 2003. Their knowledge was confirmed both from their visit to Japan in September/October, 2003 and from an RTA-suppressed report by a consultant, whom they commissioned in early, 2003. However, despite all such evidence, the RTA maintained a negative and obstructive mindset regarding tunnel filtration technology.

Suppression of the truth by the RTA about tunnel filtration first began when the RTA thwarted the leading Japanese manufacturer with over 25 years of experience with in-tunnel filtration systems Matsushita Co. Ltd - from attending the RTA-managed 'International Workshop on Tunnel Ventilation' held in Sydney, 7-11 June, 2000. Matsushita courteously responded:
"...we cannot attend this time because of that too short a notice and we cannot prepare for the presentation. If possible, please give us another chance to make presentation for Tunnel Ventilation System in Japan" (Note: letter dated 6 June, 2000).
The RTA never gave Matsushita the chance to demonstrate its expertise and long experience with EP technology until October, 2003 when an RTA delegation, including Director of RTA Communications - Paul Willoughby - was sent to Japan, 30 September-10 October, by former Road's Minister Carl Scully, at the request of Lane Cove Council.

Soon after the visit, one delegate - Garry Humphrey, RTA General Manager of Motorway Services presented a conference paper in Durban, South Africa, 19-25 October, 2003. The following is a startling disclosure in his paper about Road Tunnel Operations (PIARC website).
"I was in Japan the week before last looking at tunnels on a tour organised by Mr Mizutani. Japan has some excellent cost effective longitudinal ventilation systems in long mountain tunnels employing electrostatic precipitators."

Subsequently, in April, 2004, former Road's Minister Carl Scully announced a 'filtration trial', coinciding with the release of a misleading RTA Report about Japan's numerous filtered traffic tunnels. At the same time, the RTA delayed the release of the separate independent report on international developments in filtration technology carried out by a consultant as part of the approvalconditions for the M5 tunnel. Among its conclusions, the independent report states: "significant progress has been made in the field of emission treatment technology, and that mature or established technologies are now available to remove suspended particles, nitrogen dioxide, some portion of other oxides of nitrogen, and hydrocarbon vapours from road tunnel exhaust air." (Child \& Associates)
Meanwhile, the RTA has placed an embargo on the consultant from disclosing, at international conferences, the truth about proven overseas tunnel filtration technologies.

### 1.4 Cost and Cover-up

Among the tabled RTA documents for which privilege was lifted, papers disclose evidence the RTA also grossly inflated estimates for the cost of tunnel filtration systems. Cost estimates in the privileged papers are less than an inflated $\$ 75$ million suggested by the RTA. The Federal Government is prepared to contribute $\$ 10$ million to filter the LCT. It is noteworthy that the cost estimates for the health impacts predicted from expected stack pollutants to which Lane Cove residents will be exposed is at least $\$ 5$ million annually.
'Privileged' tabled papers disclose that a reason why the RTA refused the installation of filtration systems in the Cross City Tunnel was: "The reputation of both the Government and the RTA in relation to delivery of private sector projects may be significantly damaged if a requirement to install filtration is introduced at this late stage."

### 1.5 Tabled Documents

These documents reveal continued tension between the RTA and agencies such as EPA and (then) PlanningNSW. Issues of air quality, ventilation design, noise management, health risk and risk of cancer are raised. Each time the RTA appears to obfuscate or reject the concern or argument. At times, RTA simply does not respond to the correspondence.
The documents show systematic shifting of responsibility and blame between the different departments, avoidance to own up, let alone address, fundamental errors and deficiencies, manipulation of data, ignoring of inconvenient scientific advice and deliberate misrepresentation to Parliament, the public and the EPA Board. LCTAG Inc believes the internal papers reveal widespread negligence in dealing with high levels of toxic exhaust pollution.
Documents show that the departments know the standards and conditions being used to regulate tunnels are inadequate, and the information used to approve projects has been manipulated. While the different departments argue within and among themselves about what to do, they are very concerned about admitting having made a mistake, and above all about having a "consistent" and "strategic" approach. Admitting, as well, that once a tunnel has been approved, there is no scope to change the standards, the recurring refrain is that they are awaiting new national or international standards (that can't be applied to existing projects). The EPA seems to concede in the papers that it is better to let the community take on the rogue RTA than for the EPA!
Close reading of the documents reveals an RTA bureaucracy seemingly drunk with power. Publicly they cite the EPA, NSW Health and the Department as approval bodies whose advice and technical expertise should reassure the community that health, safety, environmental and planning issues are stringently examined and forcefully applied. Privately, the truth is that these agencies are ignored where it does not suit the RTA and crushed when they dare to protest. The veracity of our claims can be seen in the summary of documents tables in October 2003 that is attached as Appendix 1.
LCTAG asserts that it is the responsibility of Government to legislate to curb the RTA's power over major infrastructure projects. EPA and NSW Health should have real power to act independently and responsibly. They should have a legislative responsibility to do so, even when their findings might be unpalatable to the RTA. Their authority in matters of air quality and community health should not be over-ridden at the whim of the RTA.

### 1.6 Bureaucracy's Answer to Cancer - Blow it in the Wind!

The NSW Government has given planning approval to discharge from the 3.7 km Lane Cove twin tunnel, highly toxic emissions, untreated, via two proposed stacks in residential/ commercial areas. Crucial lessons have not been learnt from the M5 East tunnel debacle, or from three separate Parliamentary Inquiries into the M5East Tunnel Ventilation Stack.

Noxious pollutants from the proposed stacks will impact adversely not only upon local amenity and health but also upon property values (up to 20-25\%) of the "worst affected receptors" as disclosed in documents tabled by Parliamentary Order. The severity of impact on health will depend also on conditions such as wind direction, stagnation and temperature inversions as well as on susceptibility of the exposed population. People suffering from respiratory conditions such as asthma, both young and old, are particularly at risk.
Stack pollution consisting of dust, gases and smoke, similar to the haze in the M5 East tunnel, affects the lung and respiratory tract but can also be taken up and transported by the bloodstream throughout the body. Through deposition in the environment, vehicle pollutants can also contaminate food and water as well as damage plant and animal life.

The fine particles, formed by condensation of the gases from the combustion of fuel contain known cancer-causing chemicals, as disclosed in the 'Conditions of Approval'. These 'secondary' particles, unlike those swept from the road surface, are mainly soluble in the moisture of the respiratory tract and cause acute respiratory inflammation. When absorbed, they contribute to proven cumulative toxicity.
Recent research involving 500,000 Americans has shown one in five lung cancer deaths is associated with exposure to ultra-fine particles of vehicle exhaust.
A major flaw in the RTA's supervised monitoring of pollution from tunnel stacks is that the fine particulate matter of less than one micrometre ( $<\mathrm{PM}_{1}$ ), representing $90 \%$ of particulate pollution from vehicle exhaust is mostly excluded by the measuring devices used, to date, in the monitoring and modelling. By analogy, if a professional fisherman plans to catch harbour prawns then a net of appropriate mesh size is used. In ignorance, the RTA supervise the use of a shark net and what is caught bears no relationship in composition, size and numbers to the professional's catch. The flawed air quality assessment as well as the health-risk analysis of the tunnel emissions have consistently ignored independent professional advice, (e.g., Dr Lidia Morawska (Q'land), air quality expert and adviser to WHO), that $\mathrm{PM}_{10}$ measurements, unlike $\mathrm{PM}_{1}$, provide no information regarding vehicle emissions that constitute the tunnel haze. Thus, standards set for the emissions e.g., of the western stack $\left(1600 \mu \mathrm{~g} / \mathrm{M}^{3} /\right.$ 30 min .) relate only to $\mathrm{PM}_{10}$ and grossly under-estimate the actual particulate pollution. Planning NSW has also ignored the fact that the national standards of regional air quality do not apply to point source emissions (stacks) or to tunnels as the standards do not measure the most harmful fine particles in vehicle exhaust.
Last year, in the Upper House, a 'Filtration Bill' was passed on the basis of compelling evidence of proven technology and documented health impacts of particulates. Independent medically qualified politicians contributed to the debate. However, in the Lower House, the NSW Government has consistently used its voting power and untested information to thwart not only such a Bill but to reject the recommendations of three separate M5 East Parliamentary Inquiries calling for the installation of realistic, proven, costeffective filtration systems.
Unfortunately, the unsuspecting public is largely unaware of the misleading information in the RTA glossy brochures. Not only is what is said often misleading but also, of more importance, is the failure to disclose all the facts. The RTA, with the tacit approval (or at least the silence) of bodies such as NSW Health and the EPA has led people to believe that dispersing these highly toxic pollutants into the wind will somehow render them safe. The fact is that there is no safe level of exposure to fine particles, and allowing the concentrated pollutants from road tunnels merely to blow in the wind is, LCTAG asserts, a dangerous failure to protect public health.

## 2. Term of Reference h)

## h) The extent to which the substance of the Lane Cove Tunnel contract was determined through community consultation processes.

The community consultation process leading to the Lane Cove Tunnel contract superficially appears robust. Between 1986 and 1994 there were five separate processes involving community consultation. The truth is that these were really one long war of attrition as the community battled against the RTA plan to turn Epping Rd through Lane Cove into a 100 kph freeway with grade separated intersections. The plan was rejected by the community for many reasons, not the least of which is that Epping Rd is a residential street as well as an arterial road, with many driveways opening on to it. It would have been a road safety nightmare. The path to the long bypass tunnel that we have now was littered with RTA obstacles - a series of short tunnel proposals that would all have widened parts of Epping Rd to ten or twelve lanes - in a residential area.

The bore driven tunnel from the Lane Cove River to the Gore Hill Freeway was proposed and promoted by LCTAG from the end of 1995 . A modified form of this concept was essentially the basis of the 1998 EIS.

However, there is no evidence that community consultation had any significant role in determining the contract with the Lane Cove Tunnel consortium.

### 2.1 EIS Community Consultation

The project itself is supposed to have arisen from the EIS process where community consultation was conducted through a series of Focus Groups. Unfortunately, it appeared that the RTA entered this consultation with a pre-determined outcome in mind. LCTAG representatives participated in three Focus Groups - Air Quality; Traffic, Transport, \& Urban Design; and Pedestrians \& Public Transport. Problems with the process included:

- The RTA attempted to stifle all discussion about filtration technology and no evidence of proper investigation was ever presented.
- RTA consistently rejected LCTAG's proposal for a three lane tunnel. If the Tunnel Consortium's traffic predictions are anywhere near correct, it seems like three lanes would have been more appropriate.
- RTA traffic numbers were clearly underestimated and it took months of community pressure to have new traffic counts done. These showed RTA's figures for 1998 traffic to be more than 20,000 vehicles per day short of the correct figure.
- The underestimation continued and the RTA's 2006 traffic projections as contained in the EIS were exceeded in 2003. As a consequence polluting emissions must have been underestimated in the EIS.
- Community representatives argued that the Falcon St ramps should have been built as part of the Gore Hill Freeway project and should not be tolled. RTA's rejection of this community recommendation is only now being understood by the public at large. The 200 m ramps have recently been described as the "most expensive" areas of road in the world.
- Late in the process RTA presented a plan to widen Epping Rd from Pacific Highway to Centennial Ave. Community members asked for traffic modelling to compare the traffic effects on local roads of the new proposal with the original concept. The modelling was never presented and in fact the Traffic, Transport and Urban Design group never met again after this request was made.
- Some other Government agencies were supposed to be represented. They did not attend regularly but this may have been due to the fact that they seemed to have no role other than to deflect community questions from the RTA.
When the EIS was published very little time was allowed for public comment. The ensuing Representations Report (2002) made scant attempt to address community concerns and became a
vehicle to reinforce RTA plans while including changes suited to the RTA view. The process does not allow any community comment after this stage.
It was not only the community whose views were disregarded and rejected. The NSW EPA had serious concerns about air quality and noise that echoed the views community members were putting. The RTA chose to treat the EPA's submission on the EIS as correspondence partly, LCTAG believes, to avoid the submission and EPA concerns being made public through publication in the Representation Report. EPA complained that the Representations Report did not address the majority of environmental issues raised by them. EPA was particularly concerned about air quality after the tunnel opened - citing stack emission concentrations and load limits and stack exhaust velocities relevant to dispersal of pollutants.
In a 2002 submission to the RTA's General Manager, Environment and Community Policy Branch, one Michael Najem (Manager Environment and Property) dismissed all the EPA's concerns. He argued that since "there is no statutory provision under Part 5 of the EP\&A Act which makes it necessary for the EPA to be satisfied that all environmental issues (relevant to its function) have been resolved before the RTA can seek the Minister's approval for the project" the EPA should "leave these issues (including any suggestion that the EIS may have inadequately dealt with the issues) for consideration by Planning NSW and the Minister. " (Document attached at Appendix 2)
One wonders what role the RTA sees for the EPA when they tout them as an approval body and treat them with such contempt internally.


### 2.2 Flaws in the EIS Air Quality Assessment

As a community we found many flaws in the EIS air quality assessment. None was addressed to our satisfaction in the Representations Report and, of course, we could not pursue them further at that time. Among the most serious were:

- Seaton (1996) states that the relative size of particles from combustion of fuel is within two peaks i.e., $0.03 \mu \mathrm{~m}$ and $0.1 \mu \mathrm{~m}$. Neither of these particle sizes (by mass or by number) is measured in the EIS Air Quality surveys.
- The invalid $\mathrm{PM}_{10}$ data for measurements of traffic emissions implies the health risk "assessment" is also grossly under-estimated and flawed.
- The EIS Report fails to reveal the health significance of particle numbers. For example: $1 \times 10^{6}$ particles, PM $0.1 \mu \mathrm{~m}$, equivalent in volume that have a surface area 100 -fold greater than one particle PM $10 \mu \mathrm{~m}$. This surface area is further under-estimated because the fine char particles are highly vesiculated or perforated like coral.
- Research shows that the $75 \%$ of the toxins, including carcinogens among the polyaromatic hydrocarbons, are carried on respirable particles less than $2.5 \mu \mathrm{~m}$ i.e., particles not fully accounted for by the RTA in its $\mathrm{PM}_{10}$ air quality data.
- Unlike overseas countries, Australia only has a standard for $\mathrm{PM}_{10}$ not for $\mathrm{PM}_{2.5}$ nor $\mathrm{PM}_{1}$. It is positively misleading of the RTA to imply $\mathrm{PM}_{10}$ includes $\mathrm{PM}_{2.5}$ and $\mathrm{PM}_{1}$.
- It seems erroneous and devious of the RTA to state "bearing in mind $\mathrm{PM}_{2.5}$ particles are a subcomponent of $\mathrm{PM}_{10}$ particles, this is a more stringent standard than the US EPA's standard for $\mathrm{PM}_{2.5}$ particles, which is set at $65 \mu \mathrm{~g} / \mathrm{M}^{3}$." (EIS Air Quality and Health Risk, p. 8). In fact, US $\mathrm{PM}_{2.5}$ standard is now set at $20 \mu \mathrm{~g} / \mathrm{M}^{3}$.
- Despite the fact that the standards in the National Environmental Protection Measures (NEPM) do not apply to a point source emission, but to a regional airshed. The RTA has ignored the specific NEPM guidelines and applied an inappropriate $\mathrm{PM}_{10}$ instrument for measuring emission pollution from stacks. Community advice was ignored.
- The RTA seems to view air quality goals as a licence to pollute. The standard for $\mathrm{PM}_{10}$ is $50 \mu \mathrm{~g} / \mathrm{M}^{3}$ average over 24 hours. But the EIS treats 48 or 49 as acceptable. This is the problem with the idea of operating a standard. We should say that 50 is the upper limit, therefore our average must be lower, in the range of 10,20 or so. The RTA has the view it can creep toward 50 and that is acceptable. In contrast, contemporary risk management is about trying to get the levels
as low as possible. We should not work up to a standard, we work down to a risk. That is not what has happened in this process.
- The EIS Report fails to respond to the results of research that confirms there is no safe threshold level of particulate exposure.
- The lack of an identifiable safe threshold level for particulate exposure points to the need to reduce ambient particulate concentrations to as low a level as practical. This means that the RTA needs to acknowledge there are feasible, practicable and warranted measures to reduce toxic emissions in tunnels without the need for stacks.
- Air pollution levels were measured by only two monitors rather than an air quality network. The choice seems not to have followed a standard protocol regarding the selection of stations, correlation between stations and missing values e.g., topography.
- The change in units of $\mathrm{PM}_{10}$ from $\mu \mathrm{g} / \mathrm{M}^{3}$ to grams/second could be seen as an attempt by the RTA to obscure or suppress the fact there are major exceedances in $\mathrm{PM}_{10}$. (See Fig. 14, Air Quality \& Health Risk). From the data it can be calculated that in 12 hours of peak traffic periods more than 40 kgm of toxic particulates are emitted into the atmosphere. It is puzzling at first why east-bound traffic uphill generates less pollution (Fig. 14) than downhill westbound traffic. This is likely to be due to undisclosed cross-ventilation through a link tunnel labelled 'emergency vehicle access' but with fans in the ceiling. Wind direction is not indicated and clearly misleading by omission consistent with RTA practice.
- Monitoring stations should be defined in terms of height and location to avoid errors in the extrapolation of data, as has been the case.
- The terms 'fine' and 'ultrafine' particulates have been used without a precise meaning. Thus whether the monitoring equipment used in the collection of data from two stations is sufficiently accurate needs to be disclosed or subjected to independent evaluation.
- The error of monitoring should have been disclosed. Does the monitor significantly underestimate the $\mathrm{PM}_{10}$ component in the collection sample? What climatic conditions existed at the time of collection e.g., humidity and temperature. An error factor of $20 \%$ would indicate $\mathrm{PM}_{10}$ $>40 \mu \mathrm{~g} / \mathrm{M}^{3}$ represents an exceedance above the $50 \mu \mathrm{~g} / \mathrm{M}^{3}$ standard.
- How exact are monitors in variable wind conditions in an undulating terrain location?
- How was the data of $\mathrm{PM}_{10}$, for example, obtained for a ventilation stack and especially how were the contributions from the stack and background established from the type of monitors and their locations.
- How long were the monitors in place before readings were taken and what evidence is available that the locations were appropriate? Exceedances are defined in terms of 'ground-level' monitoring, yet some monitors are on the top of tall buildings.
- The dispersion modelling is not transparent and does not provide information about how the data analysis had been undertäken except by the Calpuff model. The data should be audited and analysed by independent experts. The modeling of stack pollution ignores background pollution.
- The RTA fails to acknowledge that carbonaceous soot particles associated with combustion engines, especially diesel, are formed not in the in the engine but instead by gas-to-particle conversion processes form vapour phase particle precursors as the exhaust dilutes and cools in the atmosphere. These processes re extremely non-linear and difficult to simulate in the laboratory.
- Each of the regulatory authorities has failed to adopt the Precautionary Principle as recommended by experts, when there is genuine uncertainty.
- A significant factor in the power of the RTA to ignore health risks is that the NSW Health Department has no legislative or regulatory requirement to participate in the health assessment of exposure to emissions or approval of major developments such as the M5-East, Cross City and Lane Cove Tunnels. "NSW Health only provides advice to other departments or members of the public, when requested". More often it is the concern of an informed community that provides
the catalyst for NSW Health to give advice. We believe the late arrival of NSW Health to such projects places them in the distinctly compromised position of endorsing approvals made by the other Statutory Authorities (e.g. RTA, EPA and DoP) so as to avoid public confrontation with them. LCTAG maintains that NSW Health should be a partner right from the beginning withproper statutory responsibility for health outcomes.
- The RTA and other regulatory authorities fail to acknowledge that it cannot be acceptable to increase health risks to one population (e.g., exposed to emissions from two 'unfiltered stacks') on the grounds that another might correspondingly benefit.
- To date, these Authorities seem to select only facts and arguments that tell in their favour. Coloured words and phrases appeal to the emotions rather than to reason, and sometimes mean nothing at all, e.g., "by world standards our air quality is good" Often their language lacks clarity and precision. They do not give the community all the available facts to enable them to form an independent opinion based on cold fact, rather than coloured assertions and feelings.


### 2.3 From Representations Report to Contract Deed

The process does not allow any further community consultation between the EIS and signing of a contract. There appears to be no obligation on the RTA to accept or act on the outcome of the community consultation. No matter how strongly or how frequently an issue is raised by the community (e.g. air quality concerns, tunnel filtration) the RTA can simply ignore it. There is no evidence that the RTA acted upon any issue of substance raised during the EIS consultation, other than to take steps to justify their initial position.
The Lane Cove Tunnel concept was submitted for Ministerial approval with serious and unresolved concerns, not just from the community but also from the EPA. Given these facts, it would be interesting to know what role (then titled) Planning NSW played. Why did they permit the RTA to proceed before the issues were resolved? How did they advise their Minister? Was the Minister aware of the concerns of an important government agency?

### 2.3.1 The Tendering Phase

Substantial changes were made to the concept after the Minister's Approval for the project and as a result of the tendering process. These were never submitted for community information, let alone consultation. In fact, the community was not even aware of them until well after the contract was signed.
Further changes occurred during negotiations with the successful contractor in the period leading to the final Project Deed. These included:

- Lengthening the tunnel at the eastern end and changing the configuration of the Gore Hill . Freeway to position the tunnel portals in the centre and the Reserve Rd off and on ramps to the side.
- Shifting the Motorway Control Centre from the eastern to the western stack site.
- Ignoring the MCoA no 151 that obliges the RTA, before finalizing ventilation stack design, to consult "with relevant Councils, demonstrate to the satisfaction of the Director General, that potential opportunities to incorporate the ventilation stack withir an existing, proposed or newly constructed building have been appropriately considered through the selected proposal invitation and final design process." There is no evidence of any consideration or selected proposal invitation to design such a building for the eastern stack, despite a great deal of pressure from Lane Cove Council and community representatives to achieve compliance with the Minister's Condition.
- Altering the configuration of the ventilation tunnels from the design submitted to the Minister for approval. This change resulted in the deletion of $1,600 \mathrm{~m}$ of tunnel and probably saved the Contractor around $\$ 60 \mathrm{~m}$.
While some of these changes would not have aroused controversy, the fact that they were carried out in secret, with no consultation either with the community or the relevant Government agencies, is cause for serious concern about process. For example, internal documents tabled under Parliamentary

Privilege disclose that the EPA protested strongly to the RTA for not notifying them of the arrangement with the Lane Cove Tunnel Company to eliminate the 1,600 metres of ventilation shaft after the design was approved by the Minister.

This lack of disclosure was possible because the RTA has the power to determine whether or not changes are "minor" or "consistent with the Minister's Approval." If they are, then there is no requirement to inform the community or Government agencies such as EPA or DoP. EPA expressed dissatisfaction with the RTA's conclusion, but could do nothing about it.
Allowing the proponent to determine whether or not a proposed change is "minor" or "consistent with the Minister's Approval" is clearly problematic. There is no check on the RTA's power, no independent scrutiny of such changes, the Minister's Conditions of Approval can apparently be altered or ignored and there is a serious lack of transparency of process. This provision, coupled with the ability of the RTA to overrule or ignore 'advising' Government Departments or Agencies such as Health and EPA ensures that community consultation has little, if any, impact on the negotiation of a contract for the Lane Cove Tunnel or any major infrastructure project.

## 3. Term of Reference i)

i) The methodology used by the Roads and Traffic Authority for tendering and contract negotiations in connection with the Lane Cove Tunnel.

### 3.1 A compromised and Tainted Process

LCTAG has serious concerns about the process of both the tendering and contract negotiation for the Lane Cove Tunnel.
As has already been demonstrated in this Inquiry, the RTA makes itself vulnerable to commercial pressure and even perceptions of possible corrupt dealings when it demands what amounts to a high entry fee from potential contractors and negotiates that fee in secret.
If such fees are to be charged, they should be declared publicly and not subject to 'commercial in confidence' provisions. The public has a right to know:

- What is the basis and scale of such fees and how they are calculated.
- Precisely what the successful tenderer is 'buying' for the payment of the fee.
- The use to which the RTA or the Government will put the fee.
- What trade-offs, if any, are made to 'protect' the value of the fee.

The RTA's refusal to consider filtration systems, even when they were presented by tenderers as technologically and economically viable inclusions in an efficient ventilation system, was inappropriate, to say the least. The RTA was well aware that EP systems had been used successfully in Japan for almost 25 years and that they were being installed or considered in other countries as the best practice option for long, heavily trafficked road tunnels in urban areas. As shown earlier in this submission, it appears that the primary reason for rejecting this technology was a stubborn refusal by the RTA not to lose face. This appalling vanity and arrogance has tainted the tendering and negotiating phases of the tunnel contract and resulted in an inferior ventilation system.

## Term of Reference j)

## j) Any other related matters

### 4.1 Community Consultation

Community consultation has been an area of constant discord and dissatisfaction for all three tunnel projects. The nub of the problem lies in the interpretation of the word 'consult.' The RTA - and hence its contractors- seem to think it is a synonym for 'inform.' The process, as they wish to conduct it, is to present information, invite comments and use those comments to justify and defend their intended actions or entrenched positions.

Despite our previous experience with RTA sponsored community consultations, Lane Cove community representatives hoped this process would be one of cooperation and negotiation. After all, this is a community that had campaigned and lobbied to achieve the project. We wanted it to work and we wanted the best possible community outcomes.
The authors are community representatives on (respectively) the Lane Cove Tunnel Air Quality Community Consultative Committee and Construction Community Liaison Group 2 (dealing with all aspects of construction on and under Epping Rd between Mowbray Rd and the Pacific Highway). The volunteer workload for these groups is substantial - monthly meetings, reading sometimes complex material and writing submissions. For CCLG2 this latter task has been particularly onerous as this area includes most of the tunnelling works, the mid-tunnel access, air intakes, Epping Rd urban design and landscaping works and the cycle and pedestrian path.
Neither the RTA nor the contractor, Thiess John Holland (TJH) has ever bothered to pretend that our advice or recommendations will be acted upon, unless they are peripheral to the main activity. (For example, they are often prepared to add a few more streets to a community notification, but that doesn't affect the main game.) TJH would prefer community members to respond to all documentation as individuals. They do not like the CCLG2 practice where community members meet as a group to discuss major Plans or proposals. There we put our views, try to reach compromise where there are differences of opinion and devise recommendations. One member writes up the group's comments and, after every member has been given an opportunity to comment on the draft, it goes to TJH as a joint submission. In fact, TJH is so opposed to this approach that there was an attempt to forbid it early in the consultation phase and another, later attempt to discourage it. This occurred despite the fact that the Minister's Condition of Approval No. 14 (MCoA) states that the Groups shall make "comments and recommendations," we were initially told we could not make recommendations.
In addition, despite Condition 14 stating that the Groups shall "monitor compliance with these conditions of approval and other matters relevant to the operation of the Project," we are constantly told we are 'not a decision-making body." This occurs even when we are attempting to insist that the Minister's Conditions be met.

### 4.1.2 Changes to the Project

Despite a responsibility under the MCoA to consult, major changes occur without any information, let alone consultation. Two important examples are:

- Changes to traffic predictions that will increase pollution emissions from the vent stacks was revealed in a report by Dr Peter Manins, CSIRO Division of Atmospheric Research. His findings so displeased the Lane Cove Tunnel Company that Dr Manins was not permitted to attend the AQCCC meeting to speak to his report and its findings. This was despite the fact that Dr Manins was supposed to have been employed to advise the community, a difficult task since he was not permitted to speak to community members outside the AQCCC meetings!
- Re-locating the ventilation tunnel at the eastern end. This was one reason why TJH was digging at the spot where the now infamous cave-in occurred.

Many of the most serious issues raised by CCLG2 have not been resolved despite months of so-called consultation. These include safety issues with the Cycleway and Pedestrian Plan and Sub Plan C for Epping Rd such as:

- The cycleway runs directly alongside property boundaries in some areas, past pedestrian exits with poor sightlines.
- There are conflicts between cyclists and pedestrians, especially around bus stops. No physical means is provided to slow cyclists, especially those coming downhill at speeds up to 50 kph , in areas where bus shelters make visibility difficult.
- In some areas there is very poor visibility for motorists coming out of steep upward sloping driveways. They have to look for cyclists coming from both directions as well as make a safe entrance on to what will still be a busy Epping Rd.
- A slip lane in Longueville Rd at the entry to the Lane Cove Village is already a danger spot. It will became more dangerous as RTA and TJH have not only ignored recommendations to change the intersection to a safer, right-angled corner, but have shortened the merge distance in an environment of fast moving traffic.
- The cycle/pedestrian underpass linking Longueville Rd and the Gore Hill Freeway cycle/pedestrian path is a dog leg with a serious blind spot that is not safe, especially for pedestrians at night.


### 4.1.3 The Independent Community Liaison Representative (ICLR)

There is a great need for the ICLR to be truly independent of the RTA and its contractor. The MCoA state that the ICLR should be available for direct contact by the community during standard construction hours. The original MCoA stated that the ICLR should work from the Tunnel Display Centre. Neither ICLR has been genuinely available to the community at large. In fact it would be amazing if residents were even aware of the position, let alone the person.
The close association that seems to develop between the Company, the RTA and the ICLR makes genuine independence extremely difficult, if not impossible. While the current ICLR is generally a fair and reasonable meeting Chair, she has never spent any time with community representatives or meeting the community generally, yet she clearly meets and has frequent discussions with TJH and the RTA. The problem at this stage is more with the definition of the position, rather than the incumbent. However it has become increasingly clear that the community needs an advocate far more than the Company!

### 4.1.4 What Should be Done?

The whole process of community consultation needs to be overhauled. The term 'consultation' must be clearly defined so that the community, the RTA and the Contactors know what is expected. The process must be far more robust than a mere sharing of information.

Consultation should occur after the Representations Report if substantial changes are made to the EIS concept and again if changes are mooted between Representations Report and signing a contract. The determination as to whether changes are significant should not be left to the RTA.
Community views should be taken seriously and reasonable recommendations implemented. LCTAG does not expect that every community suggestion will be adopted. Clearly that is not realistic.
However there should be a genuine willingness to consider suggestions and to make changes where appropriate, rather than a dogged persistence with what appeared in the 'concept' because that is easier.

There should be an obligation on the RTA and its contractors to meet the MCoA - including construction noise limits. When it is deemed necessary to alter the MCoA during the construction or community consultation phase, the alterations should be properly justified and substantiated and should be explained to the CCLGs and AQCCC by the Department of Planning.

### 4.2 Air Quality and Poisonous Plumes

Unlimited and free access to clean air of acceptable quality is a fundamental human necessity and right.

The lung is a critical interface between the environment and the human body. An average person takes about 10 million breaths a year and about 16 cubic metres of air every 24 hours. The internal surface area of the airways in the five lobes of the human lung is about equivalent to that of a tennis court. Hence toxic substances in air can easily reach the lung and produce harmful effects locally and in other organs.
Adverse effects of exhaust pollutants now include increased infant mortality (New Scientist 3 July, 2004); chronic deficits in lung development of children aged 10-18years (New England Journal of Medicine, 9 September, 2004); acute heart attacks (New England Journal of Medicine, 20 October, 2004); and an association between ovarian cancer and exposure to diesel exhaust fumes (International Journal of Cancer, 20 August, 2004).

The World Health Organisation recently reported serious concern about the health effects of vehicle pollutants and of the polycyclic aromatic hydrocarbons (PAH's) which are cancer-causing and can coat fine exhaust particles or exist as vapours: (http://www.euro.who.int/document/E83080.pdf). Diesel exhaust is around 40 times more carcinogenic than cigarette smoke on a weight/volume basis (Gong and Waring, 1998). Up to a fifth of lung cancer deaths have been attributed to exposure to fine particles of vehicle exhausts. (http://www.newscientist.com/hottopics/pollution/pollution.jsp?id=23331100).
Researchers reported a compound, 3-nitrobenzathrone, found in diesel exhaust fumes may be the strongest carcinogen ever analysed and warn that it could be partly responsible for the large number of lung cancers in cities. It produced the highest score ever reported in an Ames test, a standard measure of the cancer-causing potential of toxic chemicals. (New Scientist, 25 October 1997). (NewScientist971025-p4.pdf)

A UK study ( $J$ Epidemiol Community Health 1997; 51:151-159) looked at 24,458 children dying of leukaemia and cancer in the UK over a 25 year period. It found that these children were $\mathbf{3 5 \%}$ more likely than chance to have lived within 4 km of a major motorway.

Twice as many people died in Sydney in 2000 from air pollution than from road accidents (Australian Bureau of Regional Economics Report, September, 2003).
Fine particles, unlike coarse ones, are mainly soluble in the lung and represent more than $85 \%$ of the particle content of exhaust emissions. In NSW, continuous monitoring of atmospheric particles is underestimated by up to $40 \%$ (Katestone Environmental Report, Lane Cove Council, April, 2003) because the NSW Department of Environment and Conservation neglects to incorporate correction factors for accuracy. Without accurate measurements of the pollution levels it is not possible to determine the real health risks or to detect exceedances of the air-quality standards. Such tolerated abuses are well documented and seem exploited by the RTA in managing the M5 East, CCT and LCT air-quality studies. It appears so much easier to establish 'compliance' when monitoring data are underestimated and skewed. This outrage is compounded when NSW Health incorporates such data into its 'internally managed' determinations of "no health-impact" studies.

The Report, by Child and Associates, into international developments in tunnel emission treatment systems was finally released by the RTA, late in 2004. Claims by the RTA that the Child Report supports RTA's 'Filtration Trial' are spurious because the first version of the 'independent' Report was completed before former Minister Scully announced a 'Filtration Trial' in March, 2004. LCTAG is concerned that the subsequent April and September, 2004 versions of the Child Report appear to have had major amendments made to them by the RTA. Why was the author prevented by the RTA from addressing issues such as the applicability of filtration systems to the M5 East, cost effectiveness and making recommendations, despite the MCoA of the M5 East requiring him to do so? Papers tabled by Parliamentary Order show the scope of the Child Report was narrowed by the RTA to ensure the author did not look at issues with potential to embarrass the RTA. Detailed information in the April version that contradicted RTA's misleading report about their visit to Japan was expunged in the final September version. Nevertheless, the Child Report did describe filtration as 'mature' technology that works effectively.
RTA's General Manager of Motorways, Gary Humphrey recently had the temerity to
assert: "Filtration will not be installed in the Lane Cove tunnel becaüse air quality standards will be $m e t$ ". Mr Humphrey's comment engenders absolutely no confidence against a background of RTA's appalling track record of misleading information and tardy reporting, subject to critical attack in 2004 by the Parliamentary Staysafe Committee. Yet, former Roads Minister Scully could announce publicly in March, 2004, to his colleague - the Hon Angela D'Amori MP, Member for Drummoyne "If the M4 tunnel is built, it will have filtration."
LCTAG believes that an obligation of due diligence applies both to the Regulatory Authorities and also to the Lane Cove Tunnel Company (LCTC). This obligation is to implement proven measures to clean and detoxify the highly polluted tunnel airstream. Such measures would be consistent with the Precautionary Principles and include the in-tunnel installation of electrostatic precipitators and denitrification systems. Failure to remedy the known toxic emissions, LCTAG believes, may contravene the Protection of the Environment Operations Act.

### 4.3 The Art of Perpetuating a Public Health Hazard

In April 2004, NSW Health released its findings from Phase 2 of its 'Investigation into the possible health impacts of the M5 East Tunnel Stack.' The conclusion reached was there was "no evidence of. an association between the prevalence of reported symptoms and the modeled emissions (annual averages of pollution levels in previous year) from the M5 East stack." The results of the study were subsequently used by the RTA and the former Roads Minister Carl Scully to claim that the impacts of tunnel emissions are free of risks. The results have also been used by NSW Health in providing advice that a major development incorporating a primary school did not have health impacts from the M5 East stack, despite knowing that their assessment excluded children and long-term health impacts.
In the knowledge of glaring inadequacies in the NSW Health Report, Lane Cove Council (LCC) commissioned an independent review by three experts, outside of NSW, and coordinated by Dr Peter Best of Katestone Environmental in Queensland.

After very detailed examination of the NSW Health Report, the Katestone Review recommended that "Council not accept the findings of the Phase 2 report" noting that "The Phase 2 findings of no association between the prevalence of reported symptoms and modeled emissions from the M5 East stack are readily criticized for potential flaws in study objectives and design."

On Tuesday 8 February, 2005, representatives of NSW Health met at LCC to discuss and respond to the serious criticisms. To the dismay of those present, there was no intent by NSW Health to withdraw their Report. Compounding this intransigence was the revelation by NSW Health that they had submitted their Report as a 'paper' to an undisclosed journal for 'peer-review' and publication. They now know that pollution was discharged from the ends (portals) of the tunnel during the study period making their own data-sets invalid.
The Lane Cove Tunnel Action Group Inc (LCTAG) and Residents Against Polluting Stacks Inc (RAPS) now want NSW Health to acknowledge publicly that they were unaware of the frequent discharge of pollution from the tunnel portals during the study period and withdraw their Report forthwith. We are also concerned that Parliament was misled by NSW Health who claimed that the study design and methodology had been reviewed by experts. The truth is that Professor Brunekreef, the only expert they asked, rejected their methodology before they started and no external review by experts was carried out.
Furthermore, why did NSW Health not bother to validate the basis of their data of stack emission and ask the RTA or tunnel operators if portal emissions had occurred? Why did the RTA not stop the regular, mostly unapproved discharge of pollution from the portals of the tunnel, and why did the RTA not advise NSW Health accordingly?
LCTAG also wants to know why Dr Michael Staff and his team at NSW Health did not correct the record when their Report had been deliberately misused publicly and politically, knowing full-well that 'at-risk receptors' such as children were excluded, producing bias for a negative finding. Only acute effects, not long-term ones, were assessed using methodology that did not and could not determine the pollution exposure of the respondents to the NSW Health phone questionnaire conducted over four weeks.
Whilst it was common for complainants to report on odour issues, NSW Health was quite dismissive without explanation of the odour source. Recent scientific reports confirm that odours can be indicators of potential risks to health due to one or more co-pollutants. A more serious field study of odour plume-characteristics as well as a positive response by NSW Health to manage the problem is warranted.

To date, LCTAG believes that the NSW Health, RTA, EPA and the Department of Planning appear to adopt the same strategies used successfully to support the use of white asbestos (chrysotile) as a safe material (J. Occup. Environ. Med., 2005; 47: 137-144). The same techniques, LCTAG believes, are being used to subvert the community into thinking exposure to vehicle pollutants is without risk to health and well-being. It can be readily inferred from the highly critical Katestone Review of the NSW Health Report that, as with the asbestos scandal, a "denial" of the hazard of an agent by its protagonists, no matter how distinguished, may not correspond with "the truth, the whole truth and nothing but the truth."

The conclusion of NSW Health's findings seems consistent with a popular form of "denial" used by the advocates of asbestos and runs like: "We did not find the evidence for a causal association between an agent and its alleged effects" when the evidence is based on suc̣h factors as:

- Unsound "negative" results derived from flawed data, methodology and study-design.
- Concealment of data that effectively removes scientific rigour and renders a reviewer powerless.
- Sampling (or questionnaire) not properly conducted in the true exposure and breathing zones.
- Manipulating the thinking of people by the release of false information, rather than a disclosure of the true facts publicly.
- Deliberately avoiding definitive answers to a number of important questions by failing to establish and operate a long-term sampling strategy for determining the qualitative and quantitative measures of hazard exposure of subjects in the study.
- Early denial is given authority when made by government or industry medical officers or by some medical consultants and others, often with 'conflicts of interest'. The significance of the hazard is down-played with a "so what?" attitude.
- Claiming to adopt "world's best practice" to imply, falsely, there are no risks to health.
- Omitting significant numbers of workers (receptors) and thereby introducing a 'negative' bias.
- Applying inappropriate standards or methods to effectively minimize the concentration of the hazardous agent in the exposure.
- By initiating an 'epidemiological survey', as a ploy, when faced with a health problem, or to simply ignore the problem. It buys time, similar to RTA's 'filtration trial.'
- Deliberately terminating studies at a stage when findings are suggestive.
- Failing to adopt Precautionary Principles to contain the toxic agent by not installing adequate environmental control technology.
- Suppressing highly critical 'audits of performance' for political expediency.

There have been too many studies world-wide which directly link vehicle emissions with mortality and morbidity for NSW Health to engage in a study where they would not be able to find the associations between stack emission and community health LCTAG believes that these strategies used to hide the public health hazards of asbestos for over a century also feature in the techniques adopted by NSW Health to perpetuate the myth to the NSW Government and its bureaucrats that the exhausting of vehicle pollutants from tunnel stacks, in residential areas, poses no health risk, either short or long term, for anyone.
It is high time lessons from asbestos, tobacco, exposure to radiation and the like are learnt and as the Hon Ms Sandra Nori, a Government Minister in the NSW Government and Member for Port Jackson said that action "must be taken to protect our communities from the impact of car emissions by using the latest and best tunnel filtration technology available". Ms Nori should know the health impacts of vehicle emissions as she is Secretary of the ALP's Air Pollution Task Force.

## Conclusion

Many of the problems that have arisen in the Lane Cove, Cross City and M5 tunnel projects stem from what is shown in the documents tabled in Parliament to be an unhealthy alliance between the RTA and large infrastructure companies. In addition, the RTA appears to have almost unfettered power to ignore the advice of Government agencies such as NSW Health and EPA. The Department of Planning seems to exercise very little control in its planning approval role.
The EPA and NSW Health have a responsibility to protect the environment and public health. One way to do that in long tunnel projects is to insist on the installation of filtration technology inside the tunnels. The RTA has adopted an irrational and negative mindset about these technologies and refuses to budge lest "the reputation of the Government and the RTA" be damaged - presumably by admitting they were wrong and being seen to change their minds in accordance with the evidence! This attitude
persists despite the RTA having commissioned a report from a reputable and qualified professional who concluded "that mature and established technologies are now available to remove suspended particles, nitrogen dioxide, some portion of other oxides of nitrogen and hydrocarbon vapours from road tunnel exhaust air."
*There is sound scientific evidence to show that motor vehicle pollution is dangerous to human health. It is worth remembering that in Sydney in 2000 more people died from air pollution than were killed in road accidents. Unfortunately, NSW Health seems more concerned to protect its flawed M5 Health Study (and perhaps to be seen not to oppose the RTA) than to recommend technology that could make at least some impact on that horrific statistic.
Flaws that were pointed out in the EIS Air Quality assessment were ignored, defended or covered up by the RTA. EPA's concerns were dismissed and never revealed to the public.
Significant changes were made to the Lane Cove Tunnel design after the EIS and again during the contract negotiation stage. None was subjected to community consultation and, worse still, some were not even communicated to EPA and the Department of Planning. These changes were not subject to any scrutiny, either from the appropriate Government agencies or from the public. At least one - the failure to consider potential opportunities to incorporate the eastern vent stack within a building appears to contravene the Minister's Conditions of Approval (MCoA No 151).
The entire tendering and contract phase has been tainted by the RTA's demand for up-front fees from prospective contractors and by refusal to consider tenders including filtration technology.
Community consultation has been difficult from the EIS through the construction phase. Community members still have serious, unresolved issues and there is no indication of a favourable outcome. LCTAG believes that there must be an overhaul of the community consultation process that ensures genuine consideration of community issues and recommendations.

In the end, these projects must demonstrate at least an equal concern for the best community outcomes as they do for the financial gain of the private companies concerned. If this cannot be achieved, the answer is for Governments to take full responsibility by financing and building future roads and tunnels themselves. There is no doubt that the current situation is simply not good enough.

## Appendix 1 - Summary of Tabled Documents, October 2003

## 1) EPA correspondence (no date):

The EPA alleges the RTA's Representations Report (RR) does not adequately address a number of environmental issues raised previously by the EPA in its EIS comments.

- EPA states it does not review or approve an Environmental Management Plan (EMP).
- RTA ignores key components of an effective audit.
- RTA proposes on-site parking for "personnel." - EPA claims this is at odds with commitment to encourage public transport.
- EPA claims the RTA's Section on Moore Street is both internally inconsistent loads/day vs trucks movements/day.
- Noise and impacts inadequate
- EPA cannot make a formal determination on air quality impact assessment; stack emission concentration and load limits; stack velocity without proper and complete data.
- Health risk assessment inadequate
- EPA alleges Holmes Air Sciences (HAIRS) under-estimates health risk assessment.
- EPA - data must be readily understood by an average person.
- Noise impacts from stacks ignored.
2.) Lisa Corbyn (DG of DEC) to Paul Forward (CEO, RTA), 11 July, 2002.

EPA alleges the RTA submitted the RR to Planning NSW without resolving outstanding issues with EPA.

The EPA assert: "It is important these air quality issues be assessed rigorously and transparently prior to submission of the final $R R$."
3.) Lisa Mitchell (Planning NSW) to J. Betts (RTA), 1 July, 2002

Planning NSW requests RTA to send the R.R. to EPA who were not told of submission of the RR by the RTA to Planning NSW.
4.) HAIRS response to EPA queries, 10 July, 2002.

- "optimum" ventilation parameters cannot be established.
-     - health risks resulting from stack emissions should be balanced against reductions in risks that occurs as a result of releasing what were formerly roadway emissions from the stack.
- EPA identifies self-contradiction by HAIRS in health risk assessment.
- EPA sent a corrected version that HAIRS failed to send to EPA..

Notes by RK: HAIRS puts up very weak defence. 'Fiddle factoring' is clearly evident in response by HAIRS
5.) Planning NSW (Lis Mitchell) received responses from J. Betts (RTA), 22, August, 2002.
(many pages/tabulated Questions \& Answers.)
Note by RK: Many of the responses by RTA have not been tested independently. Concerns are held that the responses appear 'doctored'.
6.) EPA to Planning NSW and to J. Betts (RTA) (no date)
"EPA considers HAIRS, 2002 does not fully address the stated additional information. "
EPA alleges HAIRS 2002 provides results for only one LCT stack.

EPA allege a predicted high cancer health risk around the western stack - 3 times higher than $1 \times 10^{6}$
HAIRS, 2002 dismisses EPA's concern about impact of cold starts. EPA in response demands qualitative data and analysis to substantiate view of HAIRS. Such data were missing and notdisclosed to EPA or to the community
7.) Lisa Mitchell (Planning NSW) to J. Betts, (RTA) 1 July 2002

Planning NSW admonishes RTA for not answering questions.
8.) Paul Forward (RTA) to S. Holliday (Planning NSW) 24 June, 2002
"I am satisfied that the construction and operation of the proposal as so described will affect the environment."

RTA requests approval of modified ventilation design, incorporating a tunnel shaft etc.

## 9.) Joe Woodward (EPA) to Sam Haddad (Planning NSW)

". . .EPA raises concern about the transparency of the environmental assessment process and the adequacy of the $R R$ to clearly demonstrate to the public how environmental issues have been addressed. EPA cannot assess in the absence of adequate information."
10.) John Goodwin (EPA) to Caitlin (Planning NSW) 9 October, 2002

- "PM 2.5 " " no data to set compliance standards."
- "NEPM only apply to regional air quality and not to specific premises or facilities."
- "PM ${ }_{2.5}$ - for reporting purposes only. It is not appropriate to apply these benchmarks as compliance goals for the tunnel projects."


## 11) John Goodwin (EPA) to Minister, 18 December, 2002

Role of EPA: The EPA will issue a licence for the construction of the CCT and LCT to control noise, dust, spoil and water management only.

Note by RK: EPA appears not to have responsibility over air quality compliance. This appears now to be the responsibility of Planning NSW. The effect is that not one department accepts responsibility for determinations or compliance of accurate measurements of air pollution. The stage is set to begin the process of negligence in a 'duty of care' through a documented litany of 'buck-passing'.
12.) Paul Forward (RTA) to S. Holliday (Planning NSW) 25 October, 2002 Proposal to modify ventilation ". . . been assessed and considered to have a nett beneficial effect in comparison to the EIS project."
". . . minimal impact on local community."
"... has support by staff in principle."
Note by RK: This proposal was severely criticised by the visiting Japanese because of the location of intake vents near exhausts. There is no evidence that the 'ventilation shaft' has been evaluated independently. What does P. Forward mean it will have "minimal impact on the community"? RK asserts that the design will enhance fine particle formation and hence when exhausted, untreated, it will impact more adversely on the community.
13.) Lisa Corbyn (EPA) to P. Forward (RTA) 11 July, 2002

Further questions - information demonstrates an estimated risk greater than $1 \times 10^{6}$ i.e., 3 times higher. EPA warns that when such thresholds are exceeded EPA then triggers action to reduce health risks greater than $1 \times 10^{6}$ (RTA provides no information about mitigation options.) etc.

Notes and comments by RK: The reader is advised of the following information regarding the Occupational Health and Safety Act:

The Australian Financial Review reported on (Monday $8^{\text {th }}$ September 2003) - "The High Court has opened the door for asbestos companies and victims to lodge multimillion-dollar claims against governments for their failure to protect workers. from the material." Does this mean that known disease from vehicle emissions will also follow the path for future taxpayers to front yet another billfor the actions, inaction or negligence of those elected or paid to be responsible for providing guidance or solutions? -
Does this also mean that all government employees can take action against their employer for unsafe work places and practices under Workcover? If so does this mean the taxpayer will pay again? What about employees of e.g., SC Johnson (LC West) and Weir Warman (Artarmon)?

The broader issue, other than the experiences above, that LCTAG would seek input on are;
Under the OHS Regulation 2001 (as posted on the Workcover web site) includes;
Chapter 1, Preliminary
Public Place- means a public road or any other place to which the public, whether on payment of a fee or otherwise, ordinarily has access.
Premises - included any place, and in particular includes; a) any land, building or part of any building, or b) any vehicle, vessel or aircraft, or c) \& d)

Employer - means a person who employs persons under contracts of employment or apprenticeships. Advice from Workcover is that employers includes all levels of Govt.
Chapter 1, Division 4 - Atmosphere Definitions: atmospheric contaminant means (a) a hazardous substance that occurs in the form of a fume, mist, gas, dust or vapour, or (b) an asphyxiant, or (c) nuisance dust, to which persons may be exposed in the working environment.
The following Clause in the Act is especially relevant as it identifies an obligatory duty of care to control a 'hazard to health'. I believe the 'engineering' means (see ' $c$ ' below) to do so is by proven electrostatic precipitation and gas-detoxification, not by a ' 3 rd ventilation tunnel' that is not costeffective.

The $3^{\text {rd }}$ ventilation shaft is claimed by the RTA to be needed to protect motorists and maintenance workers IN the tunnel. The same principle has applied to the Cross City Tunnel.

Is this RTA's attempt to conform with the OH\&S Act, 2001 in a highly discriminatory manner? What about the employees of SC Johnson and Weir Warman as well as residents around untreated stack emissions? How can these employers conform with the Act and protect employees from emissions approved by instruments of Government?
Chapter 1, Clause 5 Meaning of "control" of risks
For the purpose of this regulation, an obligation to control a risk to health or safety (in any case in which the elimination of the risk is not reasonably practicable) is an obligation to take the following measures (in the order specified) to minimise the risk to the lowest level reasonably practicable:

- firstly, substituting the hazard giving rise to the risk with a hazard that gives rise to a lesser risk,
- secondly, isolating the hazard from the person put at risk,
- thirdly, minimising the risk by engineering means,
- fourthly, minimising the risk by administrative means (for example, by adopting safe working practices or providing appropriate training, instructions or information),
- fifthly, using personal protective equipment.

A combination of the above measures is required to be taken to minimise the risk to the lowest level reasonably practicable if no single measure is sufficient for that purpose.
Any obligation in this regulation to control a risk by taking specific risk control measures, or by taking specific risk control measures in a particular order, is in addition to the obligations referred to in subclauses (1) and (2).

Chapter 1, Clause 8 Responsibilities held by more than one responsible person

If more than one person has a responsibility with respect to a particular occupational health and safety matter under this Regulation:

- each person retains responsibility for the matter, and
- the responsibility is to be discharged in a co-ordinated manner.


## Chapter 2, Clause 9 Employer to identify hazards

Chapter 2, Clause 10 Employer to assess risks
Chapter 2, Clause 11 Employer to eliminate or control risks
Chapter 4, Clause 36 Controller of premises to eliminate or control risks
A controller of premises must eliminate any risk, arising from the premises, to the health or safety of any person accessing, using or egressing from the premises.
If not reasonable practicable to eliminate the risk, the controller of the premises must control the risk.
A controller of premises must ensure that all measures (including procedures and equipment) that are adopted to eliminate or control risks to health or safety are properly used and maintained.

## Chapter 5, Clause 136 Use of plant - registration requirements and particular risk control measures

(3) An employer must ensure in relation to use of plant that:

- plant is subject to appropriate checks, tests and inspections necessary to minimise risks to health and safety, and
- if the operation or condition of plant presents an immediate risk to health or safety, the plant is withdrawn from operation until the risk is eliminated or, if this is not practicable, controlled.

A reference in this clause to an employer extends to an owner of plant affecting public safety.
Chapter 5, Clause 136 Maintenance and repair of plant-particular control measures
An employer must ensure in relation to the maintenance and repair of plant that:

- repairs to the plant are carried out so as to keep the plant within its design limits.

In this clause: a reference to an employer extends to an owner of plant affecting public safety.
From the above it is apparent that as an employer having an employee in a vehicle where the issues of vehicle emissions have created a health and safety issue there is only limited actions that can be taken to comply with the OHS Regulations. The fact that the vast majority of vehicle emission pollution in major cities is sourced from government vehicles (refer below RMIT) and there is no action on their part to take corrective action. How does an employer take appropriate action short of having all employees drive with respirators on?
Is the government (all levels) in breach of the Act and if so are they subject to fines? Would this be at the level of Minister, Department Head or Supervisor or all of them, or does it extend to the Premier or the Prime Minister? Would they be indemnified for failing to comply with OHS legislation?
The frustration associated with knowing of a hazard, being unable to fix the hazard or comply with legislation is compounded by the problem with "Duty to Notify Pollution Incidents Under the NSW POEO Act" as "a pollution incident is required by the POEO Act to be notified if it: involves actual or potential harm, that is not trivial, to the health or safety of human beings or to ecosystems:"
With reference to the following comments by reputable sources how do some "exist" within the framework of legislation, obligations as an employer and being concerned with the environment?
The current legislation "gap" coupled with the low awareness by the consumer that their "environmentally friendlier" vehicles produced after 1988 have provided a false sense of security in the current exhaust emission levels of motor vehicles. It has been politically okay to penalise owners of older vehicles operating on leaded fuels but the fact that a catalytic converter has an effective operating life of 5 years, shorter if tampered with or damaged, has not been made common knowledge. Once damaged, the vehicle emissions will result in higher levels of air pollution. The issues of in-service diesel vehicles have not been addressed.

Following discussions with a wide cross-section of the various State and Territory politicians and public servants the standard excuse for no new laws has been; "legislating for passenger vehicles whilst the diesel emissions are unchecked would not be acceptable to the voters".
2. There are now guidelines for new diesel vehicles in place and again there is a high degree of "buck passing", ignorance and little activity relative to the available solutions for in-service or aftermarket diesel vehicles or stationary engines.
3. Recently, in addition to numerous scientific reports, there have been a number of press reports indicating the dangers of diesel emissions and the effect on the lives of people;
(a) ABC Television-4 Corners $5^{\text {th }}$ November 2002

Title: Search for A Supermodel
Professor Tony McMichael - National Centre for Epidemiology ANU :
"There are more deaths being caused by urban air pollution than there are by car crashes" ............ "the greatest hazard to human health, to lungs and the heart, come from the particles that we refer to as the sub- 2.5 micron particles."
"these are very, very fine particles of the kind that are particularly produced by diesel engines."
RMIT University - Dr Ed Boyapati presented the findings at the $8^{\text {th }}$ International Conference on Energy and Environment in Cairo, Egypt (January 2003).
"Research from RMIT University shows that public transport networks release more greenhouse gas emissions than private cars. According to the study, trams produced the highest amounts of greenhouse gas emissions followed by trains, buses and cars".
Radio National (ABC) - Monday $28^{\text {th }}$ April 2003
Summary ;
"exhaust from diesel vehicles is everywhere and is probably more carcinogenic than cigarette smoke -- but it's not regulated like smoking in public places. In fact our tax system encourages more of the stuff. With air pollution shortening the lives of 2000 Australians every year, where's the "Quit" campaign against dirty diesel in the cities?"
"...... As particulate concentrations in the air rise, so do the death rates, from a variety of causes. And that's not counting those who suffer a range of pollution-related illnesses."

Planet Ark : Cleaner off-road diesel vehicles may save 8,500 lives - report. June 11, 2002
"Washington - The Bush administration should adopt tough federal pollution emission standards for bulldozers, farm tractors and other off-road diesel vehicles to prevent 8,500 premature deaths and 180,000 asthma attacks each year, state and local environmental regulators said in a report released yesterday.".
Whilst the Governments at all levels tend to ignore the issues of exhaust emissions this provides a potential problem under various Workcover Legislation as the work environment for such employees as drivers, toll collectors, parks \& garden staff, workers in the Lane Cove Industrial Estates etc is not safe relative to potentially fatal diseases caused by vehicle emissions. Similarly, the same hazards impact adversely on residents as well as workers e.g., SC Johnson Pty Ltd (west LC) and Weir Warman Pty Ltd (east LC/Artarmon) exposed to toxic stack emissions. How do the employers address such workplace toxic hazards from stacks?
Whilst we have stated early in this document that such a community would possibly benefit from the introduction of vehicles emissions testing and in-service emissions standards the over-riding conflict of being in breach of legislation and being unable to comply would indicate that there should be no employers as they are guilty by inaction of others and defenceless if investigated.
In summary what LCTAG is seeking is advice on how the Government should comply with its own legislation and the associated demands of these and other regulations whilst there are so many conflicts within the expectations placed upon an employer. Employees are assets of our community's business and should be protected from hazards, be they environmental or physical and make every attempt to do so. Similarly residents that are subject to known toxicity from stack emissions must also
have relief in law. Political appointees claiming that the levels of exposure are too low cannot ignore the fact that vehicle emissions are environmental hazards that may cause illness or death.

## 13.) Lisa Corbyn ((EPA) to Paul Forward (RTA) 5 September, 2002.

* Further questions not yet resolved.

Note by RK: What is apparent in the process of the LCT project approval is that the RTA behaves as a rogue bureaucracy that conducts its business in utter contempt of and disregard for due process. Here, it seems, the EPA is treated with such contempt and is seen by the RTA as being mischievous and irrelevant to the aims of the RTA.

## 14.) J. Woodward (EPA) to Sam Haddad (Planning NSW) 30 August, 2002.

Further questions.
Alleges lack of transparency. See attachment - (PP) Woodward (EPA) to Haddad 30.8.02

## 15.) J. Betts (RTA) and HAIRS to EPA 6 September, 2002.

- LCT stack heights - west 30 M (above ground), 62 M above water line (AHD).
- The top balcony of Compac building is 63 M AHD ie.,1metre above stack
- east stack is $134 \mathrm{M}(\mathrm{AHD})$ i.e., 8 metres above Corinthian building.

Note by HAIRS - They are not the consultants for the $3^{\text {rd }}$ ventilation shaft for the LCT.
Revised health risk assessment, page 13. "There will be a number of potentially harmful emissions from the tunnel ventilation stacks including 1,3-butadiene, formaldehyde benzo(alpha) pyrene, acetaldehyde and benzene".
Note by RK: There is no mention by HAIRS of proven carcinogenic association between lung cancer and fine particles as published in JAMA March, 2002. This is typical of the documented, equivocal manner HAIRS deals with information and inconvenient data, even to the extent of blatant lies, as already proven in previous documents

HAIRS reduce the risk of cancer by a factor of 2 because they assume over 70 years pollution will be reduced.
Note by RK: This is negligent activity where it seems the patronising intention is to remove the risk disclosed by EPA by fabricating a scientifically non-valid factor i.e., two-fold reduction. The effect is to manipulate data in a manner that others would also judge to be 'scientific misconduct'.

## 16.) Andrews Mattes (EPA) to Penny Finlay (Planning NSW) 24 July, 2002.

- Requests data not to be used in external correspondence.
- Concern expressed about unacceptable cancer risk greater than $1 / 10^{6}$.
- Claims "argument that HäIRS state risk is a small percent of the background levels is not relevant."
See attachment (PP) A. Mattes (EPA) 24.7.02


## 17.) EPA - meeting 9 August 2002

Health risk of HAIRS still above EPA benchmark. The agenda seeks a discussion of ways to bring the increase below the risk.
Note by RK: This document discloses what seems to be a conspiratorial attempt to collude to find ways to alter the findings so that a disclosed risk is hidden or removed.
18.) EPA-5 July, 2002

RTA fails to respond to EPA. Up to 10-fold increase in cancer risk.
19.) Nick Agapides (EPA) 26 June, 2002.

Predicted cancer risk is 2-4 times. However, at "elevated receptors" (people) the risk is 10 -times higher.
See attachment (PP) Agapides (EPA) 26.6.02

## 20 a) Planning NSW to EPA 1 November, 2002

EPA's comments are addressed by Holmes to the satisfaction of Planning NSW.
Note by RK: There is no indication that the EPA concurs with the acceptance by Planning NSW.
20 b) Planning NSW alters EPA's recommendation (S. Welchman), 24 October, 2002.
Notes by RK: Seems that the annotations in the draft recommendations indicate Planning NSW has deleted EPA's conditions related to exceedances e.g., provision 62.
Planning NSW has also deleted two of four monitors at ground level.
Note by RK: This deletion has the effect of further reducing the chance of detecting an exceedance due to stack emissions. The effect is to minimise the evidence that can be used by the community to establish a cause and effect relationship in respect of health impacts etc.

## 21.) Charles Xu (affiliation ?EPA), 24 October, 2002.

Identifies flaws in HAIRS calculations for emissions when EPA alleges HAIRS under-estimates.
Xu confirms HAIRS under-estimates health risks.
Note by RK: This finding is absolutely consistent with the documented assertions by RK and independently validated by Professor Michael Moore (Q'ld).
22.) J. Goodwin \& J. Woodward (EPA) - 30.8.02
$\mathrm{PM}_{2.5}$ and TEOM correction factors

- TEOM 'Adjustment Committee' not yet made a final recommendation.
- $\mathrm{PM}_{2.5}$ TEOM - more controversial because of higher organic content.
- EPA also anticipates that the community will demand similar site correction factors for LCT and CCT should TEOM monitoring be used.
- EPA not recommend course for action to DIPNR - want the Committee to decide.
- Adopting a correction factor for the M5 East may create a precedent.

Note by RK: This is an important document and discloses the premeditated failure on the part of EPA to incorporate correction factors to obtain proper levels of pollution monitoring. The admissions in this document are, I believe, highly damning of the EPA and provide evidence of collusion to be negligent in a duty of care. EPA determined with the knowledge that omissions of correction factors were to be deliberately undertaken that would underestimate particulate monitoring and health risk assessments. This is utterly appalling conduct.
See also Attachment (PP) EPA 7.8.03

## 23 a.) Lisa Corbyn (EPA) to S. Haddad (Planning NSW) 17 September, 2003.

- RTA and not EPA involved with RAPS to apply a correction factor.
- EPA 'back off' getting involved with the correction factor debate and refer to legal/policy issues.
- EPA reports unadjusted TEOM PM $_{10}$ in all its public reports on regional air pollution.
- EPA intends to continue not to incorporate a correction factor until resolved "at the national level" for "fine particles."
- EPA regards TEOM and Hi Vol are equivalent and do not require correction factors to be applied.
- EPA does not recommend correction factors for CCT and LCT "until further debate."

Note by RK: This is an appalling revelation by the EPA regulatory authorities who are clearly derelict in their duty of care to the community. The document reflects utterly incompetent and reckless conduct.

## 23 b.) Lisa Corbyn (EPA) 24 January, 2003.

Response to M5 East Parliamentary Inquiry, November, 2002 and recommendations of Committee.

- NEPM do not apply to tunnels or to stacks.
- Operator monitors $\mathrm{PM}_{2.5}$ at ambient air quality monitoring stations.
24.) Sam Haddad (Planning NSW) to L. Corbyn (EPA) 15 July, 2003.

M5 East TEOM correction factor.
Should a TEOM correction factor be applied to M5 East, CCT and LCT?
Note by RK. This document discloses, at such a late stage, the deliberate decision to ignore the assertions by the LCTAG and others that the background monitoring by $\mathrm{PM}_{10}$ TEOM was underestimated on the basis of overseas practice adopted for over a decade. Yet, Planning NSW, EPA, RTA, Health and HAIRS have, I believe, colluded knowingly to conspire to omit such corrections in a negligent manner.

## 25.) Andrew Mattes (EPA) to Penny Finlay (Planning NSW)

Concern that risk of cancer reduced by 2 -fold on assumption that cleaner fuels will be introduced over the next 70 years.
Note by RK: Here there is concern by EPA of the 'fiddle factor' incorporated by HAIRS to diminish the real cancer risk to insignificant levels.
26.) Nick Agapides (EPA) to John Wasserman and Mark Hather (Planning NSW) 21.5.03

## Katestone Report

EPA/ Planning is very defensive of the position by RTA that Dr. Best has refuted.
Note by RK; This document shows an appalling shift in responsibilities that nobody among the Regulatory Authorities wishes to take. Cover-up upon cover-ups!

## 27.) Holmes Air Sciences (HAIRS) to J. Stricker (RTA) 21 May, 2003

This correspondence is the response by Dr. Nigel Holmes to the report of Dr Peter Best regarding LCT air quality issues raised by Lane Cove Council..
Note by RK; This lengthy report by HAIRS represents a litany of garbled information that has no real substance in either scientific methodology or objective reporting of the facts. The report by Dr Nigel Holmes is devoid of scientific stringency and objective analytical insight. Holmes' failure to face the assertions of Dr Best squarely is clearly evident and inconsistent with statements previously made by HAIRS. The following are a few of the anomalies in the Report:
a) Dr Holmes in typical style, as he did in response to LCTAG's assertions, responds to Dr Best's independently checked analysis by concluding Dr Best's conclusions are: "irrelevant to the LCT assessment"
b) Dr Holmes makes the following statement that seems patronising to the RTA:
"The basic assessment methodology used in the EIS has been to accept that NSW ambient air quality goals have been set in such a way that they protect the community from the adverse effects of particulate matter."
Comment by RK : Dr Holmes knows full well that the EPA's monitoring of TEOM PM 10 underestimate the particulate levels and, therefore, falsify the risk of health Impacts. His statement is positively wrong and misleading.
c) In response to the matter of incorporating correction factors as undertaken in Europe, the response of HAIRS is a flippant "so what!" Dr. Holmes then continues "but I agree with what is being said but how should it be used to change the LCT assessment?"

Comment by RK: This is the exact manner by which Dr N. Holmes responded to the proven assertions of RK in the LCTAG's Submission to the LCT EIS
"The second paragraph states that in France when TEOM measurements are used for background to introduce the missing secondary particles in the analytical model, a constant correction of $9.5 \mathrm{ug} / \mathrm{m}^{3}$ is added to all grid points. While we question the relevance of this for the conditions in Lane Cove we note that doing this would not alter the conclusion reached in the assessment". (HAIRS, February, 2002 response to LCTAG's Submission to the LCT EIS)
d) In response to the practice in Europe of adding $9.5 \mu \mathrm{~g} / \mathrm{M}^{3}$ to measurements undertaken by TEOM $\mathrm{PM}_{10}$, Dr. Holmes states "this issue relates to the conversion of pollutant gases $\mathrm{NO}_{x}$ and $\mathrm{SO}_{x}$ etc. to particles that occurs over periods of many hours or days."

Comment by RK: The statement is wrong and positively and patronisingly misleading as shown as follows:

Paul Filliger et al.
'Health costs due to road traffic-related air pollution. An impact assessment project of Austria, France and Switzerland: PM10 pollution exposure'.
WHO Technical Report on Air Pollution, pp 1-79, June 1999.
The complete article can be accessed at the following link:
[http://www.who.dk/document/trt/pm10.pdf](http://www.who.dk/document/trt/pm10.pdf)
The relevant section is copied from page 44 of the article and is pasted below.
Notes:
1.) Filliger et.al. state that $T E O M ~ P M_{10}$ underestimates the secondary particles which are the fine, toxic, respirable ones produced by 'nucleation' from the exhaust gas.
2.) A correction factor of $9.5 \mu \mathrm{~g} / \mathrm{M}^{3}$ is added to all measurements taken at every grid point.
3.) In direct contrast to the claims of Lisa Corbyn (EPA NSW to S. Haddad, 17.9.03), Filliger et al state the TEOM $\mathrm{PM}_{10}$ underestimates the levels compared to the gravimetric Hi -Vol filter method which has a cut-off of $0.3 \mu \mathrm{~m}$ (HAIRS, 2001 response to LCTAG). The secondary particles fall into 2 peaks according to size i.e., $0.1 \mu \mathrm{~m}$ and $0.03 \mu \mathrm{~m}$ (A. Seaton.1996) Thus, even the $\mathrm{Hi}-\mathrm{Vol}$ technique does not capture all the 'secondary particles'.

### 4.2.7 Correction for secondary particles (p 44 - Filliger et al., 1999)

In the atmosphere, a substantial part of $P M_{10}$ can arise from long-range transport and chemical gas to particle conversion (secondary particles). The BS (Black Soot) measurement technique tends to underestimate this secondary component of aerosols due to the fact that components like ammonium sulphate and ammonium nitrate (important parts of secondary particles) cannot be correctly measured by this method. The same can be said of $P M_{10}$ when measured by Tapered Element Oscillating Microbalance (TEOM). In this study, only TEOM-PM ${ }_{10}$ data were available for comparison with BS data. TEOM underestimates $P M_{10}$ concentration in comparison to that obtained from gravimetric filter samplers. The underestimate is mainly caused by heating of the inlet air, producing an almost complete loss of ammonium nitrate (and possibly other $P M_{10}$ secondary particles). The satisfactory agreement found between $T E O M-P M_{10}$ and BS in urban sites may be attributed to the fact that the BS method underestimates secondary particles in roughly the same proportion.

To introduce the missing secondary particles into our analytical model, we added a constant correction value of $9.5 \mu \mathrm{~g} / \mathrm{m} 3$ to all our grid points for the whole of France. The value of $9.5 \mu \mathrm{~g} / \mathrm{m} 3$ corresponds to the regional background of secondary particles as estimated for France by the European scale EMEP model (EMEP 1997).

This is a 'conservative' correction-factor, because the urban-scale portion of the secondary particles is ignored. As a consequence, the resulting map indicates a minimum level for $P M_{10}$.

Further comment by RK: It is noteworthy that HAIRS claims they did incorporate such a factor and it made no difference as shown in the following statement copied and pasted:
"This section also discusses the findings of a CSIRO report prepared for Environment Australia as the request of the Peer Review Committee of the NEPM. The CSIRO report found that for TEOM monitors measuring PM $M_{10}$ concentrations at low temperatures, that there needed to be an adjustment to the measured data in order to make them match the measurements made by the standard high volume sampling system which is the reference method for measuring particulate matter adopted by the NEPM. In practice, the adjustment to the data proposed by CSIRO does not come into effect for measurements made at daily average temperatures above 15-17 C. One of the main uses of the TEOM data from Lindfield was to determine a background level to be added to model predictions to determine worst case pollutant levels. For the high concentrations, the adjustments in fact turn out to be extremely small. The reason that the adjustments were not in fact applied was because the CSIRO study only became available after that part of the work for the EIS had been completed. However the recommended changes are too small to be of significance." (HAIRS response to LCTAG's Submission to the LCT EIS, February, 2002)
"LCTAG maintains contrary to the contention of HAIRS that such omissions of secondary particles by HAIRS does relate to the serious flaws in the arguments used in the EIS.

The second paragraph states that in France when TEOM measurements are used for background to introduce the missing secondary particles in the analytical model, a constant correction of $9.5 \mathrm{ug} / \mathrm{m}^{3}$ is added to all grid points. While we question the relevance of this for the conditions in Lane Cove we note that doing this would not alter the conclusion reached in the assessment." ." (HAIRS response to LCTAG's Submission to the LCT EIS, February,2002)
e) HAIRS refutes Dr. Best's allegations and says "it is wrong to suggest that concern about effects of particles has increased since EIS was prepared."

Comment by RK: This is a totally wrong and uninformed statement by HAIRS. HAIRS ignores several recent reports including the large study published in the Journal of the American Medical Association March, 2002 that documents an association between eg lung cancer deaths and exposure to fine particles of vehicle emissions. See reference below:

# Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution 

C. Arden Pope III, PhD

Richard T. Burnett, PhD
Michael J. Thun, MD
Eugenia E. Calle. PhD
Danicl Krewski, PhD
Kazuhike Ito, PhD
Gcorge D. Thurston, ScD

Based on several severe air pollution events, ${ }^{1.3}$ a temporal correlation between extremely high concentrations of particulate and sulfur oxide air pollution and acute increases in mortality was well established by the 1970s. Subsequently, epidemiological studies published between 1989 and 1996 reported health effects at unexpectedly low concentrations of particulate air pollution. ${ }^{4}$ The convergence of data from these studies, while controversial, ${ }^{5}$ prompted serious reconsideration of standards and health guidelines ${ }^{(21)}$ and led to a long-term research program designed to analyze health-related effects due to particulate pollution. ${ }^{1-13}$ In 1997 , the Environmental Protection Agency adopted new ambient air quality standards that would impose regulatory timits on fine particles measuring less than $2.5 \mu \mathrm{~m}$ in diameter $\left(\mathrm{PM}_{2} s\right)$. These new standards were challenged by industry groups, blocked by a federal appeals court, but ultimately upheld by the US Supreme Court. ${ }^{14}$

Although most of the recent epidemiological research has focused on ef-

Context Associations have been found between day-to-day particulate air pollution and increased risk of various adverse health outcomes, including cardiopulmonary mortality. However, studies of health effects of long-term particulate air pollution have been less condusive.
Objective To assess the relationship between long-term exposure to fine particulate air pollution and all-cause, lung cancer, and cardiopulmonary mortality.
Design, Setting, and Participants Vitai status and cause of death data were collected by the American Cancer Society as part of the Cancer Prevention il study, an ongoing prospective mortality study, which enrolled approximately 1.2 million adults in 1982. Participants completed a questionnaire detailing individual nisk factor data (age, sex, race, weight, height, smoking history, education, marital status, diet, alcohol consumption, and occupational exposures). The risk factor data for approximately 500000 adults were linked with air pollution data for metropolitan areas throughout the United States and combined with vital status and cause of death data through December 31, 1998.
Main Outcome Measure All-cause, lung cancer, and cardiopulmonary mortality.
Results Fine particulate and sulfur oxide-related pollution were associated with allcause, lung cancer, and cardiopulmonary mortality. Each $10 \cdot \mu \mathrm{~g} / \mathrm{m}^{3}$ elevation in fine particulate air pollution was associated with approximately a $4 \%, 6 \%$, and $8 \%$ increased risk of al-cause, cardiopulmonary, and lung cancer mortality, respectively. Measures of coarse particle fraction and total suspended particles were not consistently associated with mortality.
Conclusion Long-term exposure to combustion-related fine particulate air pollution is an important environmental risk factor for carciopulmonary and lung cancer mortality.
IAMA. 2002;287:1132-1147
innuw.jema.com
fects of short-term exposures, several 2 studies linked individual risk factor studies suggest that long-term exposure may be more important in terms of overall public health. ${ }^{4}$ The new standards for long-term exposure to $\mathrm{PM}_{2}$, were originally based primarily on 2 prospective cohort studies, ${ }^{13.10}$ which evaluated the effects of long-term pollution exposure on mortality. Both of these studies have been subjected to much scrutiny,' including an extensive independent audit and reanalysis of the original data. ${ }^{17}$ The larger of these
and vital status data with national ambient air pollution data. ${ }^{10}$ Our analysis uses data from the larger study and

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1132 JAMA, March 6. 2002--Vol 287. No. 9
"Adverse health outcomes are correlated with mass concentration measurements of both $P M_{10}$ and $P M_{2.5}$ and do appear to be more closely correlated with $P M_{2.5}$ suggesting that the smaller particles are more harmful to health than the coarser fraction". (HAIRS response to LCTAG's Submission to the LCT EIS, February, 2002). Thus, HAIRS are not consistent with their own previous statements.
f) HAIRS state "We have no alternative but to base the LCT assessment on the EPA's massbased standards".

Comment by RK: This statement is not in line with the facts disclosed by EPA's Lisa Corbyn (17.9.03) where EPA acknowledges they have been underestimating the TEOM $\mathrm{PM}_{10}$ readings to the public. This means that the health risk assessments are correspondingly underestimated (See attachment L.Corbyn to S.Haddad 17.9.03)

| Your reference | M5 East ,TEOM |
| :--- | :--- |
| Our reference | EXF26741, SR546/05 |
| Conlact | Ross Carter, 02.9995 6800 |

Mr S Haddad
Executive Director:
Department of Infrastructure, Planning and Natural Resources GPO BOX 3927
SYDNEY NSW 2001


## Dear Mr Haddad

M5 East Ambient Air Quality Monitoring - TEOM Pm10 Data Correction Factor
Thank you for your letter dated 15 July 2003.
As you note in your letter, the Environment Protection Authority (EPA) was not involved fi the decision to apply a correction factor to PM $_{10}$ data collected by continuous TEOM monitors in the vicinity of the M5 East. Rather, the RTA agreed to do this with Residents Against Polluting Stacks (RAPS) and formed the TEOM Correction Factor (TCF) Committee to recommend a way forward on the issue. The EPA assisted the Committee by supplying data from its regional ambient air quality monitoring network and advice about the EPA's approach to managing its regional air qualify monitoring data:

Inole your request for advice about the implications of implementing the recommendations of the TCF Committee for the Conditions of Approval of the M5 East. The implications of the recommendations for the Conditions of Approval seem primarily associated with legal/policy issues related to the Environmental. Planning and Assessment Act 1979 rather than technical issues and are therefore not within the sphere of the EPA. However, to assist you in making your decision you may wish to conslder the current approach of the EPA in terms of its management of regional air quality monitoring data, and also in relation to its approach to amblent air quality monitoring for ils scheduled premises.

Firslly, as you are aware, the EPA reports unadjusted TEOM PM $\mathrm{PM}_{10}$ and PM $_{25}$ dala from its ambient air quality monitoring network in all of its public reports. The EPA will continue to do so until all of the technical issues around monitoring of fine particles is resolved satisfactorily at the national level. Also, the EPA's objective with its regional air quality monitoring data is to provide an input to the public policy process and not as a compliance condition for a specific development such as a ventllation stack. In this instance, a stack emission limit is more appropriate.

Secoidly, for the purposes of ambient air quality moniloring by scheduled premises, the EPA may require licensees to adopt either the TEOM monitoring method or the ligh volume sampling monitoring method. The EPA regards these methods to be equivalent for this purpose and does not require any correction faclor to be applied.


g) HAIRS refers to Dr. Best who stated " correction factors should be applied to TEOM PM 10 ". Dr. Holmes's response is ". . . interesting but largely irrelevant."
It is especially noteworthy that Dr Nigel Holmes discloses that he is a member of the National Environment Pollution Measure (NEPM) Peer Review Committee and also states he is familiar with the references quoted by Dr Best in relation to incorporating correction factors. It seems then that he changes his position to suit the personal and political surroundings and in doing so his reliability is questioned on the basis of conflicting statements.

The extraordinary fact is that his wife, Dr Kerry Holmes, of HAIRS and Dr Peter Best have in late 2002 produced a report to recommend correction factors. See below. Both are authors on a conjoint paper to be presented 23-27 November in the Clean Air Conference, Newcastle. It is difficult to believe that Dr Nigel Holmes is unaware of such developments. The only conclusion is that we see yet again clear evidence that patronage is the lifeblood of politics.

## TEOM ADJUSTMENT FACTORS FOR A SUBURBAN ENVIRONMENT IN SYDNEY

Peter R Best1, Lena Jackson1, Jane Barnett2, Eloise Duguid2, Melissa Hart2 Kerry Holmes2
1Katestone Environmental, PO Box 2184, Toowong, Queensland, Australia
4066 2Holmes Air Sciences, Suite 2B, 14 Glen Street, Eastwood,
New South Wales, Australia 2122
TEOM instruments using heated inlets may underestimate PM10 levels inurban areas due to the loss of semivolatile secondary aerosols and organic compounds. Whilst temperature-dependent or seasonal adjustment factors have been suggested as suitable procedures to bring closer agreement between traditional gravimetric methods such as high volume air samplers and other measurement techniques, considerable variability may still occur within a given urban area. Detailed compositional measurements are rarely available in Australasian situations that can provide a better approach for standardisation of TEOM or beta-attenuation techniques. Recent measurements at 2 sites in the M5 East tunnel air quality monitoring network (Sydney) allow reasonable seasonal factors to be defined but have much smaller adjustment factors than at a nearby EPA site. The implications for routine measurement campaigns and setting of project performance measures are discussed with reference to recent recommendations from Australian and European agencies.
(h) Dr. Holmes agrees with Dr. Best's assertion that if the stack is not properly designed,
the concentrations will be higher - "but it is not up to Katestone to assume that the stack will be built with inadequate momentum buoyancy. In fact, it is quite mischievous to do so. " Again, Dr Nigel Holmes does not respond squarely as the same questions werte raised by EPA that the RTA failed to respond via HAIRS.

## 28.) Lisa Mitchell (Planning) to Denise Wilson (EPA?).

John Betts (RTA) provides a detailed list of responses to questions from EPA.
These include responses to the Moore St Compound proposal. Reference is made to the 'Red Crowned toadlet' as not being affected by the site damage. The RTA regards the Moore St bushland as "a degraded environment" and would benefit by restoration after the tunnel is built.

## 29.) Penny Finlay (Planning) to J. Betts (date not shown)

This is a 3-page response from HAIRS. The EPA alleges HAIRS provide results for one stack configuration and location, the details of which are not provided. EPA also claim HAIRS,2002 fails to recommend an optimum stack location, height and minimum exhaust velocity.
30.) Lisa Mitchell (Planning to J. Betts (RTA) 1.7.02

This document provides details of questions being sought further from the RTA by Planning. Some issues relate to the Moore St Compound.

## 31.) J. Woodward (EPA) provides to the Board, options to regulate motorway tunnels and ventilation stacks - 4.11.02.

It is noteworthy the EPA makes the following comment:" Once constructed (tunnel) it is usually not feasible to make changes to the project that were not allowed for in the original design"

- NSW Health recommended that additional goals be applied to the CCT and LCT projects based on exceedances of CO levels in the M5East.
- Note the following comment from EPA "There is considerable concern about the haze level in the M5East tunnel and its implication for safety and health. The haze within the tunnel consists primarily of particles from vehicle exhaust emissions particularly from diesel-engine vehicles. Minimum levels of visibility are required for the safe operation of the tunnel and this is one of the factors used to determine the minimum ventilation rate. Visibility levels that meet these safety requirements nevertheless can result in a clearly visible haze within the tunnel."
- " The EPA playing a more upfront role may risk removing pressure for the RTA to respond to the community in these situations"
- "Penalty clauses that require the proponent to provide significant funds for local air quality initiatives for each day that in-tunnel and/or stack limits are exceeded. These measures will provide significant financial incentive to ensure that the "teething" problems experienced with the M5East are avoided".
- "The primary options for the EPA to increase its role in regulation of motorway tunnel is to use the powers of the Protection of the Environment Act either as the appropriate regulatory authority or through licensing the operation of the tunnel under the Act.......If the EPA takes on a larger role in regulating the operation of these projects there is the risk that the design assessment and approval process may be compromised by the presumption that the EPA will be able to solve any shortcomings once the motorway is in operation"
Note by RK: Yet again the EPA behaves as though impotent to make change. Instead it clearly wants to defer to the RTA and 'pass the buck'.
MEMO

To: Jay Stricker<br>General Manager, Environment \& Community Policy Branch<br>From: Michael Najem<br>Manager, Environment \& Property

Subject: Lane Cove Tunnel - Submission from EPA in response to Representations Report

Jay
I refer to our discussion in relation to the letter from the EPA dated 5 September 2002 attaching a copy of a letter dated 30 August 2002 from the EPA to Planning NSW in response to the Representations Report for the Lane Cove Tunnel.

The letter from the EPA relevantly states that:

- the EPA's response to the Representations Report is "an interim response."
- there are a number of air quality and noise related issues that require resolution "prior to the EPA finalising its determination of the project."
- these issues need to be resolved "to enable the approval process to proceed".

The letter from the EPA to Planning NSW dated 30 August 2002 relevantly states that:

- the EPA wants an opportunity to review the draft conditions of approval under Part 5 of the Environmental Planning and Assessment Act 1979 ("EP\&A Act") before they are finalised;
- in the Representations Report, the RTA identified the EPA's comments in Appendix B as correspondence rather than an EIS submission and did not directly address the majority of the environmental issues raised by the EPA. This is said to raise concerns about "the transparency of the environmental assessment process, and the adequacy of the Representations Report to clearly demonstrate to the public how environmental issues have been addressed";
- air quality remains the principal operational phase environmental concern. The EPA is unable to assess the predicted air quality impacts in the absence of "outstanding information requirements";
- noise management, especially at the Moore Street works compound, and excavation spoil and water quality management, remain the principal construction phase concerns. The environmental impacts associated with the construction of the Tunnel are manageable to acceptable levels; and
- the EPA awaits the outstanding information in relation to the air quality issues "so that we can determine whether or not the EPA can issue an Environmental Protection Licence for $-;$ the construction of the motorway".

The following are my comments on the EPA's correspondence:
1 The EPA is a determining authority for the project under Part 5 of the EP\&A Act as it will need to grant an Environmental Protection Licence for the construction of the project.

Tollway construction is a scheduled activity under the Protection of the Environment Operations Act 1997 ("POEO Act"). Accordingly, the RTA will need to apply for and obtain an environment protection licence from the EPA. The RTA does not require a licence for the operation of the tollway. This is confirmed by the EPA in its letter dated 31 December 2001 commenting on the EIS (Attachment, Section 2).

The EPA states that it is awaiting outstanding information in relation to air quality issues so that it can determine whether or not the EPA can issue an Environmental Protection Licence "for the construction of the motorway". However, in its submission to Planning NSW, the EPA confirms that the environmental impacts associated with the construction of the Tunnel "are manageable to acceptable levels."

The "outstanding information" relates to the predicted air quality impacts which the EPA identifies as the "principal operational phase environmental concern."

Accordingly, as the "outstanding information" is only relevant to the operational phase and given that the EPA has already confirmed that construction phase environmental impacts are manageable, the EPA has already confirmed that it can issue an Environmental Protection Licence for the construction of the project. There is, therefore, no reason why the EPA's concerns relating to the predicted air quality impacts should delay the Part 5 approval process or the discharge of the EPA's statutory functions.

The EPA's role as a determining authority under Part 5 is to take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the EPA granting an Environmental Protection Licence to enable the activity to be carried out.

The fact that the EPA may consider that some environmental issues have not been resolved to its satisfaction does not preclude the RTA seeking the Minister's approval for the project. The EPA can seek clarification on any issues which it considers to be outstanding at the time that it determines whether to grant an Environmental Protection Licence to enable the activity to be carried out.

Having made a submission in response to the EIS, it is a matter for the Director-General of Planning NSW and ultimately the Minister, to consider the issues raised by the EPA and to determine whether to approve the activity and, if so, what appropriate conditions to impose on the approval.

There is no statutory provision under Part 5 of the EP\&A Act which makes it necessary for the EPA to be satisfied that all environmental issues (relevant to its functions) have been resolved before the RTA can seek the Minister's approval for the project.

This view has been confirmed by Brian Preston SC.

2 As you are aware, there is no statutory provision for submissions in response to Representations Reports. I note that the EPA refers to its submission as being "an interim . response".

3 The EPA does not need to resolve operational air quality issues "prior to ... finalising its determination of the project". The EPA's role as a determining authority relates only to construction phase issues. Air quality issues are only relevant to the extent that construction work on the project may affect air quality.

There is no statutory basis for the EPA seeking to review the draft conditions of approval under Part 5 of the EP\&A Act.

5 In relation to the particular issues raised by the EPA in response to the Representations Report, I make the following comments on the issues which you identified as being of particular concern:

## General Environmental Management - Schedules and Reporting

In terms of the EPA's statutory functions under the POEO Act, there is no reason why the "complaints register" referred to on page 7.23 of the Representations Report should be made publicly available on the project web site "to enable the EPA to determine the nature of the complaint, the action taken in response to the complaint, and who was responsible for the action." Any complaints relevant to the EPA's statutory functions would be required to be provided to the EPA pursuant to the usual conditions of the Environmental Protection Licence.

In any event, environmental performance monitoring was covered in the EPA's comments of 31 December 2001 on the EIS and recommendation 2.1 "That the proponent commit to establishing independent monitoring and reporting of environmental performance against EIS commitments (as amended by consent conditions and environmental protection licence conditions) as part of the project's management decision-making process".

## Air Quality Impact Assessment

In relation to air quality impact assessment, stack emission concentrations and load limits, and stack exhaust velocity, the EPA raised concerns in relation to the adequacy of the assessment of these operational issues in its submissions in response to the EIS and made appropriate recommendations (see section 3.2). Holmes Air Sciences prepared a Lane Cove Tunnel Air Quality Study: Preliminary Responses to Preliminary Submission from NSW EPA (5 April 2002) in order to address these issues.

## Tunnel Ventilation System Design and Management

The EPA states that a detailed analysis should be prepared to identify and eliminate any conflicts in the integration of tunnel ventilation design and operation, incident response triggers and procedures, and traffic management.

The EPA raised these operational issues in its submissions in response to the EIS (see section 3.2.5).

Given that the above issues were previously raised by the EPA in response to the EIS and dealt with as part of the Representations Report, there is little point in the EPA raising the issues again in its submission on the Representations Report. There has to be finality in such submissions. The appropriate legal position is for the EPA to now leave these issues (including any suggestion that S/1507948
the EIS may have inadequately dealt with the issues) for consideration by Planning NSW and the Minister.

* The fact that the EPA is still not satisfied with the information provided by the RTA on what are clearly operational issues, is no basis for delaying the approval process under Part 5 .


## Michael Najum

Major, Environmental \& Property.

# BOTTLENECK! 

a phenomenon by which the performance or capacity of an entire system is severely limited by a single component

August 2017

# HOW TO KILL A CITY 

## Jeff Angel

I've been through many metro planning consultations; battles to remove massive road corridors; campaigns to protect local green spaces; and more than enough studies on public transport visions.

In 1999, TEC published 'Greenprint for Sydney' as a precursor to the green Sydney Olympics partly directed at encouraging a green legacy for the metro area. Many remember how well the train and bus system worked with such huge crowds. We were also able to develop BASIX as a result of the Olympic experience which mandates energy and water conservation features in new and renovated housing. There were also some new parks.

## No-one really believes that WCX is a sustainable solution

But how far have our governments fallen from the growing branches of public transport and building a liveable city. Today in the Baird/Berejiklian era our city is being massacred by massive road projects. When we thought the stupidity of building more roads, only to see them fill up during peak hour (M2, M5 for example) had finally dawned on decision makers - they resurface like long-dormant dinosaurs. To make matters worse, Cabinets decide they won't consider alternatives like public transport - as we are now seeing with the F6.

WestConnex demonstrates all the bad features of road building - from arrogant bureaucrats to clear-felling of

'Grand Theft' WestCONnex rally - NSW Parliament House, 6 April 2017. Photo: Pip Hinman
neighbourhoods and tree canopies to half-thought-out interchanges and link roads.

To their great credit communities keep fighting - bearing witness, exposing budget blowouts and shining a light on decision makers hiding behind orange bollards.

We are in a very real sense fighting for Sydney. No-one really believes that WestConnex is a sustainable solution, but everyone can see that the present government does not care about people or the environment. People need to come first, not delusions about mega roads.

We are at the crossroads: our city is crying out for more green spaces, massive tree planting to reduce crippling urban heat cores. Sydney must cease investing in short-term projects and instead develop a real vision for a sustainable future.

Jeff Angel is Director of the Total Environment Centre, Sydney



## ANDREW

 CHUTER 8Why we need a Royal Commission into WCX


## WENDY

BACON 9
WCX - just who's pulling the strings?


## ELIZABETH

FARRELLY 18
There's never been a better time to protest in the


## BOTTLENEGK!



Neil Phillips, The Pollie's Poisonous Popularity Pipe, 2015

WestConnex is an anachronism, a dinosaur, an ill-favoured thing well beyond its time. Born of a concept discredited worldwide more than 50 years ago, recognised then as an abject failure. A failure from every conceivable point of view.

Not only is it an appalling misappropriation of public monies, but it is an environmental, social and immoral travesty, for were it ever to be completed, it would deliver the exact opposite of its stated aims, and at a massive cost.

It has been described by the best of the experts on traffic management Australia wide, from Professor Peter Newman at Curtin University in Perth to Professor James Weirick at the University of New South Wales, in terms that suggest it is nothing less than a monumental disaster just waiting to happen.

It will clearly worsen the traffic choke points at the City West Link, the Anzac Bridge and the Iron Cove Bridge, and it will ensure that Victoria Road, Parramatta Road and King Street, Newtown, are still gridlocked in peak hours.

To achieve what? Allowing traffic to arrive a couple of minutes earlier at the city end of the gridlocked tunnels as cars and trucks attempt to exit into a local
road network already choked with toll avoiders rat running through inner city streets?

The City of Sydney has independently determined that WestConnex will cost in excess of $\$ 45$ billion! That's the equivalent of 9 Snowy Mountains Schemes.

The cost is measured not just in dollars but in terms of health, of the cancers, heart disease, respiratory illness and the certain premature deaths, in the torment suffered 24 hours a day 7 days a week by the residents of Haberfield, Beverly Hills, Homebush and St Peters, in the forced evictions and the theft of homes, in the tolls imposed on Sydney's least affluent demographic and in the environmental cost to the planet.

Should the proposed Western Harbour Tunnel ever be completed, cancer-causing diesel exhaust generated as far away as Cammeray in the north and St Peters in the south would be pumped through the tunnels into Rozelle and then released through four huge unfiltered exhaust stacks, three in the goods yard and one on Victoria Road adjacent to the Rozelle Public School. The converse would apply in St Peters and in Cammeray.

There are even more hidden costs such as the insidious 'no competition' clauses that prevent the Government from building public transport alternatives
that would compete with the tollways, thus forcing dependence on the car. And the loathsome 'shortfall' clauses that guarantee these companies against future losses. The operator of the Sydney Harbour Tunnel has been paid over $\$ 1$ billion in 'lost' revenue since it became operational and joins a long list of failed road tunnels that are subsidised by the taxpayer.

Contracts are let to multi-nationals which are currently being investigated overseas for bribery and corruption - companies like AECOM which provided figures for WestConnex's Business Case thus leaving themselves open to charges of malpractice, by providing patronage estimates that almost certainly won't be achieved, as was the case with the Clem Jones Tunnel in Brisbane - resulting in more gouging of the public purse.

This is the ugly reality of WestConnex - run in total secrecy by Berejiklian through the Sydney Motorway Corporation - a private corporation which cares nothing for the community they are legally obliged to engage with - a private corporation driven solely by the bottom line, mounting 'community consultations' sessions that are just a cynical box ticking exercise - a private corporation which expects us to just consume, be silent and die.

But ordinary people across Sydney aren't going to let this happen. Not without a fight we're not! We reject the 'us versus them' divisions and the accusations of nimbyism that Ayres, Baird, Berejiklian and the heavies from WestConnex like Dennis Cliche and the spin doctors from the Sydney Motorway Corporation level against us.

We will continue to argue cogently for WestConnex to be stopped, for a better deal, not just for the people of Sydney, but for all of the citizens of NSW who also suffer when the lion's share of capital expenditure is so frivolously wasted in the Inner West of Sydney.

And we will keep working to convince the ALP in NSW to withdraw their support for WestConnex just as their counterparts did with Roe 8 in Western Australia and the East West Link in Victoria.

## BOTTLENECK!


http://rozelleagainstwestconnex.org
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The views expressed in this publication are the views solely of the contributors.
The publishers recognise and pay respect to the Indigenous nations and traditional owners of the land on which this publication was produced, the Gadigal and the other peoples of the Eora Nation. We express solidarity with the ongoing struggle for constitutional recognition, land rights, self-determination, sovereignty and the acknowledgement of past injustices following the occupation of 1788 .
Contact: pjbm@bigpond.com 0424067250

## THE BIG SENTENCE

## Peter Hehir

We are not just witnessing the wholesale destruction of heritage homes but also the dislocation of communities, the theft of homes at below market value, the loss of open space, the forced evictions, the distancing of ordinary people \& communities from the decision-making process \& their elected representatives, the forced council amalgamations, the denial of local people from having some say in determining the shape of the environment that they own \& in which they live, the loss of amenity, the imposition of State planning controls, the stifling of speech, the appalling pro-developer biodiversity legislation that threatens endangered species, the removal of protection for endangered flora \& fauna, the destruction of our built \& natural heritage, the loss of habitat, imprisonment for up to 7 years for opposing coal seam gas mining on private property, jail terms for protesting against projects like WestConnex, the ugly threat of Urban Growth turning Sydney into a high-rise dormitory, the deliberate running down of public transport, the lack of heavy rail track maintenance, the failure to introduce a modern rail signalling system, the cattle train approach of the privately run Metro, the under-utilisation of the existing rail network, the privatisation of the arterial road \& rail networks, the selling of State \& Federal-run essential enterprises, the stupidity of not embracing light rail \& the need for its sensitive placement, the forced dependence of the daily drive, the concentration \& importing of motor vehicle pollution from WestConnex tunnels, the unfiltered exhaust stacks, the detrimental impact on community health, the preventable cancers caused, the glorification of the motor car, the imposition of tolls on the residents of the west, the absurdity of tolled concentric urban freeways, the greenhouse gases emitted creating the concrete, the total disregard of the reality of global warming \& the threat of climate change, the white-anting of democracy. On \& on \& on it goes, the list is simply endless...

Peter Hehir is the Convenor of Rozelle Against WestConnex (RAW)

# STOPPING WestCONnex 

## Pauline Lockie

WestCONnex is Australia's biggest infrastructure project, and it's being funded by us, through our tolls and taxes.

Even before it's built, it's wiped out endangered species, parks, thousands of old-growth trees, and hundreds of homes and businesses from Parramatta through to Beverly Hills. If built, it will see tens of thousands of men, women and children exposed to increased pollution, and slug families in western Sydney with huge tolls.

All this, when even the government's own figures show WestCONnex will make traffic worse on many of the roads it's supposed to fix. WestCONnex will have a massive impact on NSW for generations. But if you don't feel like you know much about it, I can assure you it's not your fault. The NSW government under Mike Baird and now Gladys Berejiklian has done everything it can to shut down transparency around WestCONnex, so they can bulldoze as much of it through as possible before people realise the truth: that WestCONnex is a scam.

All of us, but especially people in western Sydney, are being fed the lie that WestCONnex will bust congestion. And we know this is a lie, because the world is littered with big roads that have failed to ease congestion, and instead made traffic worse. The proof of this can be seen in WestCONnex's design. For a price tag of $\$ 16.8$ billion - a figure the City of Sydney says is now $\$ 45$ billion - we get a road that mostly duplicates failed roads we already have, like the M4 and the M5 East. These roads were once supposed to be the solution to other congested roads; instead, they made traffic worse.

And of course, motorways like WestCONnex cause other huge problems - pollution, diseases, climate change, community and environmental destruction, lost economic opportunities, the list goes on.

Many cities - including Paris, New York, San Francisco and Seoul - are tearing down freeways instead of building new ones

It's for this reason that there aren't many cities around the world that still view building motorways

> Many cities including Paris, New York, San Francisco and Seoul - are tearing down freeways instead of building new ones

as "progress". Tearing down freeways instead of building new ones doesn't just return huge amounts of former road space back to people. Getting rid of roads actually reduces traffic as people find other ways to get around.

So why are our leaders here so determined to cling to an outdated disaster like WestCONnex? Let's follow the money.

Back in 2012-13, when WestCONnex was first floated, the tollway industry was in crisis. Roads like the Cross City and Lane Cove Tunnels had either gone broke or were getting there fast. Two companies that were heavily involved in these failures were Leightons and AECOM. Macquarie Bank was also involved in failed tollways. Despite this, the NSW government chose these companies to be closely involved in planning and justifying WestCONnex. Naturally, they said it was a great idea.

Now Leightons has won contracts to build WestCONnex, even as it stands accused of corruption overseas. AECOM too has picked up WestCONnex contracts worth millions. Macquarie has a financing contract until 2070. Nick Greiner, the former NSW premier who pushed WestCONnex as chairman of Infrastructure NSW, is now an adviser to Transurban, which stands ready to buy up WestCONnex and its lucrative tolling contracts.

But because so many tollways have gone bust, no private company was willing to risk its own money to build WestCONnex. So the toll road lobby, along with then-NSW treasurer Mike Baird, came up with a new funding model: to use our money to build it, so we're the ones who carry the risk.

This is why WestCONnex is seeing an unprecedented flow of public money into private hands. And it's being done in the most secretive way possible. But while the Berejiklian government is doing its best to try and keep the truth hidden, communities across Sydney are fighting back. And

## It's not too late to stop WestCONnex and stop it we must

we are breaking through.
People have flooded the NSW Planning department with a record-breaking number of objections to WestCONnex - over 17,500 to date. Acts of civil disobedience have been erupting across the route. Thousands of people have packed out public meetings, signed petitions, and spread the word that WestCONnex is a scam. Now the government is so keen to rid itself of WestCONnex that it recently announced plans to sell off the Sydney Motorway Corporation itself - not just the toll concessions as originally planned.

There is so much more we could do with $\$ 16.8$ billion, let alone $\$ 45$ billion, than WestCONnex. We could invest in better public and active transport. Creating jobs in our west and across NSW. Not to mention investing in our schools and hospitals.

It's not too late to stop WestCONnex - and stop it we must. Because if we let our government get away with all this, it'll become the way everything's done in NSW: with no transparency, no accountability, and no benefit for anyone except the companies grabbing billions of our money.

So don't wait for the tunnels or the tolls to come to you. Help us keep taking action against this destructive tollway - because together, we can stop WestCONnex.

Pauline Lockie is a founding member of WestCONnex Action Group (WAG). She lost her family home in St Peters to WCX in 2016.

## Pl National Trust

# The National Trust of AUSTRALIA (NSW) Policy on the Heritage Impacts of Urban Motorways 

## Preamble

In 1972, the National Trust opposed the NorthWestern and Western Expressways which would have cut a swathe through Glebe demolishing 800 homes and the property "Lyndhurst" to the steps of the Sydney Town Hall. In September 1976, the National Trust released its Policy Statement on Urban Freeways ${ }^{1}$ responding to the threats to Glebe posed by urban freeway proposals dating from the 1950s. This Policy was updated in July 1981 as the National Trust Policy on Urban Freeways ${ }^{2}$ to address moves to revive and construct the then abandoned inner urban freeway system. In 1989, the National Trust produced a discussion paper -Towards a Transport Policy for the National Trust ${ }^{3}$ which advocated a number of transport initiatives based on shifting the focus of transport provision by government towards "mass transport" and away from major road proposals.

A 1995 National Trust Policy Paper Transport The Heritage Implications ${ }^{4}$ set down National Trust support for various actions to reduce transport pressures and indicated transport proposals that would be opposed by the National Trust. In September, 2005 a Trust Alert - Motorway proposals threaten inner city Urban Conservation Areas ${ }^{5}$ publicised the Trust's concerns that National Trust listed Urban Conservation Areas including Enmore, Annandale and the Dacey Garden Suburb at Daceyville were threatened by the motorway corridor or access proposals. A major lobbying campaign by the National Trust in the early 1990s in conjunction with local community groups, led to the above-ground M5 motorway through the Wolli Creek Valley being built underground to save this important green space and its bushland, wetlands and rainforest. Over the past fifteen years the Trust has continued to express concern at the heritage impacts of inner urban motorway proposals and has supported mass transport options such as light and heavy rail in preference to inner urban motorways.

## Policy

1. While acknowledging that the increased mobility and affluence of our society and an increasing population require much improved transport facilities, the National Trust will oppose further motorways being brought into the inner suburbs and central business district that threaten areas of great historical, architectural, scenic and social importance.
2. The National Trust will oppose the loss of public parklands for inner urban motorway construction, including both permanent loss involved with a motorway route/connection ramps or shorter term alienation during the construction phase.
3. The National Trust believes that the provisions of public/private partnership agreements for urban motorways should be made public and that such agreements must not contain penalty provisions for compensation payments to a motorway operator if a public transport system competes effectively with the motorway.
4. The National Trust would oppose public/private agreements that disadvantage the public who do not choose to use the toll roads constructed under those agreements.
5. The National Trust believes that massive expenditure on motorway development will divert much needed public and private investment away from public transport development which can move large numbers of people more effectively and with much less adverse heritage impact.
6. The National Trust believes that the constant daily movement of large transport trucks severely degrades the urban environment and will urge that rail transport should be the preferred means for transporting container goods related to Port Botany and Sydney Airport. The Trust would oppose motorway proposals which promote increased large truck movements through urban precincts, particularly those with heritage significance.
7. The National Trust acknowledges that inner city motorway development will be inextricably linked to residential/commercial redevelopment of higher densities in the zones adjoining the motorway and consequently would oppose such development or elements of that redevelopment when it;

- Impacts upon or degrades the values of adjoining Heritage Conservation Areas,
- involves the demolition of Listed Heritage Items,
- involves the demolition of places which have been removed from Heritage Lists on non heritage-based grounds,
- involves the demolition of places which, in the Trust's view are of indisputable heritage significance but which have been denied statutory heritage recognition.

Author: Graham Quint
Approved by National Trust Board

[^6]
# The Destruction of Haberfield's Heritage 

## Cassi Plate

The most significant, and until recently, most strictly controlled historic garden suburb in the world has been eviscerated. And our newly-unelected Czar of City Planning, Lucy Turnbull, professed ignorance that it was even happening.

Haberfield is the oldest and most intact planned garden suburb in the world. Built in 1901, it exemplifies the Federation era: the birth of contemporary Australia. In their own Environmental Impact Statement (M4EIS), WestConnex describes the garden suburb as 'outstanding for its collection of modest Federation houses displaying skilful use of materials and a high standard of workmanship of innovative design and detail particularly reflective of the burgeoning naturalistic spirit of the Federation year in which they were built.'

A later garden suburb at Hellerau in Germany, founded in 1909, is a national icon, drawing visitors from around Germany and the world to experience and study the uniqueness of the place and its architecture. It is fully protected.

Yet here in Sydney, WestCONnex ploughs through this unique area, destroying not just 53 houses, 23 apartments and nine businesses, but iconic street trees and gardens. It's clear from their plans that cars emerging from the eight lanes created by this wilful and tragic destruction will grind to a halt, as they're jammed onto two eastbound lanes on Dobroyd Parade/City West Link.

Even a worthy transport project - one that sensitively provided mass transit solutions for a growing population - would have raised such serious concerns about the destruction of character and heritage that protection of Haberfield would have been ensured.

The EIS repeatedly documented that the demolition of a wide variety of heritage houses, apartment blocks and buildings, some along Parramatta Rd and many in Ashfield with locally listed heritage significance, would have 'major adverse impact(s)'. The EIS described the effect on the Haberfield Heritage Conservation Area as 'significant and unable to be effectively mitigated.

As if this were not bad enough, many more 'heritage items, potential heritage items and Heritage Conservation Areas above the proposed tunnels and in the vicinity of construction works may be subject to vibration impacts', possibly compromising 'a heritage item's structural integrity.'

Instead of beautiful and historic houses and vegetation, Haberfield will be blighted with an eightlane highway, and is already suffering 'the visual impacts of new motorway infrastructure', soon to include the unfiltered exhaust stacks ('ventilation facility' in SMC speak), 'motorway facilities and noise walls.'

That these houses were once people's homes is a


Amalgamated Ink Edgar was a Master Plumber 2017
matter of complete disdain for Government Ministers. Such is the Government's contempt and mistreatment, only four residents from the six demolished apartment blocks or the 53 demolished houses have been able to relocate back into their suburb. The housing stock is seriously diminished by so much demolition and the money paid by the Government - clearly aware of its actions - was so far below market value that nearly all former residents of areas so far destroyed (including Concord, Homebush, Burwood Strathfield and St Peters) have been forced to live further from the city,


Protesting Lucy Turnbull's professed ignorance of Haberfield devastation at the hands of WCX, 2016.
and away from their communities of family, friends and schools.

The day the hoardings appeared, wrapped around the bomb sites where homes and gardens once stood, a local resident received a phone call from someone in WestConnex public relations: "Do you have any photos of the heritage houses? We'd like to put them up on the hoardings."

Cassi Plate is a founding member of No WestCONnex Public Transport

## That these houses

 were once people's homes is a matter of complete disdain for Government Ministers.[^7]
## URBAN AIR POLLUTION

## Mark Curran

Twice as many people die each year from air pollution as die from traffic accidents. The major source of air pollution in Sydney is combustion', mainly from motor vehicles and 'mobile sources' such as ships and planes. The major harm however is thought to reside in the diesel exhaust contribution.

In Sydney, there is a general sense of complacency about air quality and when compared to some other cities, Sydney's air quality is generally good. This is not to say that there are not areas where significant problems exist.

## Lung Cancer and the M5 stack?

In response to community concerns about the impact of emissions from the infamous M5 East stack, scientists and statisticians from the Sydney South West Area Health Service carried out an investigation in 2011 into cancer incidence in the area adjacent to the stack.

Data was collected from suburbs identified by the CSIRO as likely to be exposed to stack emissions including Earlwood, Turrella, Arncliffe, Bardwell Park, Kingsgrove, and Dulwich Hill. Data from the suburbs immediately around the area formed the experimental control.

To the evident shock of the health professionals and the dismay of local residents, the study demonstrated a clear increase in the incidence of lung cancer in both males and females in these areas.

Up until about 2000, about the time the M5 East opened, lung cancer incidence in these areas had been slightly lower than the state average.

Between 2002 and 2007 lung cancer rates increased markedly, male rates increasing from 60 to 84 per hundred thousand, a $40 \%$ increase.

Over the same period the rates for males on a state-wide basis fell from 64 to 59 per hundred thousand, dropping by $9 \%$. The surrounding, demographically similar suburbs did not show the same increases.

The study concluded that the stack was not the cause of the increase because of the time it takes for lung cancer to develop, but left the actual cause unspecified. These troubling findings are yet to be followed up on.

Lung cancer usually takes between six and 10 years to develop. Probable sources of the particulate air pollution likely to be the cause of the increase are Port Botany (opened 1979-82) and the continuing expansion of the International Terminal at Kingsford Smith Airport after 1992.

## Components of vehicle pollution

- Carbon monoxide - now $70 \%$ less than 20 years ago, but still a problem
- Lead - no longer an air pollution problem
- Nitrogen dioxide - produced in all motor engines and increasing as engines operate at higher temperatures.
- Fine particles - produced in all diesel engines. Total mass decreasing but numbers increasing as particles produced become finer (and more harmful)
- Volatile organic matter - probably increasing. Includes known carcinogens such as benzene. Involved in smog formation with nitrogen dioxide and sunlight
The two most significant pollutants impacting on local residents close to roads and tunnels are nitrogen dioxide and particulate matter.


## Nitrogen dioxide

Petrol and diesel engines emit significant quantities of nitrogen oxides. Most of this is nitrogen oxide ( NO ) but about $10 \%$ is nitrogen dioxide $\left(\mathrm{NO}_{2}\right)$. Nitrogen oxide is relatively harmless and non-irritating but nitrogen dioxide is a brownish, irritating, mildly acidic gas.

Oxides of nitrogen are also formed naturally during thunderstorms and other electrical discharges, and nitrogen oxide is slowly converted to nitrogen dioxide in the air under the influence of ozone and sunlight.
Adverse impacts of nitrogen dioxide are:

- irritation of the human respiratory system
- aggravation of respiratory diseases such as asthma
- coughing, wheezing and difficult breathing
- longer term exposures can contribute to the development of asthma and increased susceptibility to respiratory infections
People with asthma as well as children and the elderly are at most risk from the adverse health effects of nitrogen dioxide.

Nitrogen dioxide has been shown to interact synergistically with particulate matter at relatively high concentrations such as those experienced in a road tunnel, such as those experienced in a road tunne
each increasing the impact of the other.

## Particulate matter

In contrast with nitrogen dioxide, particulate matter is a complex mixture, varying both in size and composition.

Particles of significance to human health can range in size from aggregations of relatively small numbers of molecules (nano particles) up to particles 10 microns ( $\mu$ ) in diameter.

Particles larger in size than this are not considered to be significant for human health with the exception of pollen grains which can be up to ten times larger than this $(100 \mu \mathrm{~m})$. Only the smallest pollen grains are captured in the measuring systems used to assess air quality.

Particulate matter can consist of a wide range of materials such as mineral matter (rock dust), salt spray or carbonaceous matter from combustion.

Smog is a special form of particulate matter. Originally the word was used to describe mixtures of coal smoke and fog such as occurred in London in 1952, however now it is used to describe the particulate matter which results from the interaction of volatile organic matter in the air with nitrogen dioxide under the influence of sunlight.

Smog is a major harmful component of air pollution in Sydney.

Carbonaceous particulate matter can undergo a process of condensation where individual particles of nanometric size condense together into larger aggregates.

In the process, other components such as metals can be incorporated into the particle. Because the particle is mainly made of elemental carbon, it has the capacity to adsorb organic molecules onto its surface.

This is probably the reason why diesel particles are so dangerous, as they contain many organic molecules including cancercausing polycyclic aromatic hydrocarbons.

The diesel engine is a high-pressure, high-temperature chemical synthesis system capable of producing a wide range of uniquely dangerous compounds which are then attached to a delivery system capable of introducing them directly into the lungs and, ultimately, the blood streams of those exposed to diesel exhaust.

Diesel exhaust is coming to be regarded as the new asbestos because of its capacity to do harm.

## Dangers of Diesel Exhaust

Particles resulting from combustion processes are generally more toxic than those from windblown dust and salts. Of special concern to the protection of lung health are fine particles, less than 2.5 microns in diameter. (For comparison, a human hair is about 75 (For comparison, a human hair is about 75 diesel engines were regarded as being safer alternatives to the petrol engine and the 'smoke' was thought of as a minor irritant, important because it was unsightly, smelly

## Dangers of particulate matter



In 2000, the respected New England Journal of Medicine [342. pp 406-13] listed the following health impacts from particulate air pollution:

All particles are dangerous and there is no safe level of exposure, but weight for weight, toxicity appears to double with each halving in the diameter of the particles inhaled. 'Nano' particles less than about 100 nanometers in diameter severely irritate the lung, irrespective of their composition and can carry adsorbed toxins directly into lung tissues, easily penetrating cellular membranes.

The impacts of particle pollution in children are amplified and include increased rates of asthma and chest infection and significantly reduced lung development.
This is probably because children:

- breathe more per unit body weight than adults
- have smaller airways and lungs
- have different rates of toxification and detoxification
- have immature host defence mechanisms
- have increased ventilation with play and exercise


## How air pollution affects the body



Diagram after Stone V. \& Donaldson K. (1998) 'Small particles-big problem'. Aerosol Soc Newsletter.
and reduced visibility in tunnels.
Modern medical science has clearly shown that this is not the case and that diesel exhaust is one of the most dangerous and widespread of modern pollutants. All of the exact mechanisms by which diesel exhaust causes harm are not yet known but it is clear that the harmful effects are related both to the size and composition of the particles in the exhaust.

Diesel particles, which are mainly less than $1 \mu$ (micron) in diameter and have a median diameter of about $0.2 \mu$ ( 200 nanometers), easily enter the lung tissue. The carbonaceous particles carry carcinogenic polycyclic aromatic hydrocarbons (PAH) and other volatile organic compounds (VOC) on their surface.

The recent WHO publication 'Health effects of transport-related air pollution' (2005) suggests that tailpipe emissions make up 30\%
of primary particles less than $2.5 \mu$ (PM2.5) in diameter in urban areas, that pollution levels in 'street canyons' are much higher than general urban levels and that ultra-fine particle (less than $0.1 \mu$ ) levels are markedly higher in heavily trafficked areas.

Diesel exhaust is now known to be a carcinogen and particulate pollution has even been labelled as the 'new asbestos' for its ability to cause serious illness and death. The California OEHHA lists 'Diesel exhaust' as a Toxic Air Contaminant (TAC) with a Cancer Inhalation Risk (increased risk per $\mu \mathrm{g} / \mathrm{m}^{3}$ ) of $\left(3 \times 10^{-4} \mu \mathrm{~g} / \mathrm{m}^{3}\right)^{-1}$ over 70 years ( 300 deaths per million per $1 \mu \mathrm{~g} / \mathrm{m}^{3}$ increased exposure). Comparable risks are Benzene ( $2.9 \times 10^{-5} \mu \mathrm{~g}$ ) $\left.\mathrm{m}^{3}\right)^{-1}$ and 1,3 -Butadiene $\left(1.7 \times 10^{-4} \mathrm{\mu g} / \mathrm{m}^{3}\right)^{-1}$.

Mark Curran is a retired Sydney-based biological scientist who has written widely on the health impacts of air quality

# Why WestConnex is bad news for the climate 

## Dominic Case

WestConnex and its associated urban road network in Sydney threaten our climate and our environment.

Transport is the second largest source of carbon dioxide emissions in Australia, accounting for $16 \%$ of the total, or 90 million tonnes of $\mathrm{CO}_{2}$ equivalent per year. Nearly two thirds comes from private cars. Despite assurances, WestConnex will make matters worse.

Exhaust fumes pump many poisonous chemicals into the air. But carbon dioxide emissions are in another class.

## $\mathrm{CO}_{2}$ emissions cause global warming, with disastrous effects

For 200 years, industry has been releasing carbon dioxide into the atmosphere faster than it is reabsorbed. So the level is steadily increasing, from 300ppm (parts per million) in 1950 to 406 ppm today, trapping more heat, and increasing global temperatures. Any further increase means more erratic and extreme weather, leading to droughts, crop failures, conflict and mass migration. At the current rate, we will reach 450 ppm and $2^{\circ} \mathrm{C}$ hotter than pre-industrial temperatures - a threshold that many scientists have picked as the upper limit for a safe environment - by the year 2040. Climate change is a serious, existential threat to humanity: a real and present danger.

While the level of $\mathrm{CO}_{2}$ emissions each year is now steadying, the total amount will go on rising as long as we push it into the atmosphere beyond the processes of nature. And even if we could completely halt industrial emissions tomorrow, the excess $\mathrm{CO}_{2}$ already in the atmosphere would go on raising global temperatures for some time to come.

## Roads are a significant contributor to greenhouse gas emissions

Private cars emit - on average - 200 g of carbon dioxide per kilometre. By 2020 total greenhouse gas emissions from road transport are predicted to be more than two thirds higher than their 1990 levels. We need to reverse that trend in all our transport planning.

Yet WestConnex ignored the climate change impacts of its project in its 2012 business case, and in a 2014 environmental review.

Only in September 2016 did the Environmental Impact Statement for the M4 East Project report on greenhouse gas emissions.

Appendix U reports on the expected emissions of WestConnex, both from its construction and in operation. In total, the construction phase will produce up to 382,000 tonnes of carbon dioxide equivalent. That's comparable to the annual household greenhouse emissions of a city of around 63,500 people - about the size of Coffs Harbour, for example.

## As traffic increases, so do emissions

WestConnex's own figures in the EIS make it clear that traffic will increase significantly more with


WestConnex than without it. Picking just one set of figures in its modelling, traffic running on, or near the WestConnex route across a N-S line joining Lyons Rd, Frederick St, Parramatta Rd and New Canterbury Rd would amount to 172,900 vehicles a day by 2031 in a business-as-usual scenario, but increase to 279,000 vehicles per day if WestConnex is built.

That isn't simply growth in traffic as Sydney itself grows: it is 106,100 more vehicles per day purely as a result of building the WestConnex M4 link.

On the M4 extension section of the tollroad alone, WestConnex estimates the annual greenhouse gas emissions will be 346,780 tonnes a year: equivalent to the total annual household emissions from a city of around 58,000 people. (That's almost Coffs Harbour again, but this time, it's year after year.)

## WestConnex figures defy logic

And yet WestConnex claims that those emissions will be a reduction - not just per car, but overall. They suggest that even though by 2031 (on their figures) car use across the Inner West will increase by $41 \%$ and truck use by $106 \%$, with WestConnex, fuel use (and therefore emissions) will decrease by 11 to $12 \%$. They argue that faster and smoother journeys improve fuel efficiency and would reduce $\mathrm{CO}_{2}$ emissions enough to outweigh the increased number of vehicles.

We challenge those claims. Even if traffic flows faster for a while along the new roads, it will clog up on the feeder roads at either end of people's journeys: sections conveniently not included in WestConnex's analysis.
In a few years, any efficiency will be lost
And how long will those journeys remain faster and smoother as commuters despair of public transport

By 2020 total greenhouse gas emissions from road transport are predicted to be more than two thirds higher than their 1990 levels.

- underfunded and overcrowded because of the rocketing cost of the roads and tunnels - and return to their cars? WestConnex's own analysis speaks of high traffic densities, and capacity being reached by 2031, with stop-start traffic just as it is now.


## It's time to stop building motorways for private fossil-fuel vehicles

Australia's commitment to the Paris agreement is to reduce emissions overall by $26-28 \%$ by 2030 (itself a modest and inadequate target), and all sectors must play their part. So even if WestConnex's claims are correct, reducing emissions by $12 \%$ falls a long way short of what is needed.

The Climate Change Authority published a report on opportunities to reduce emissions from light vehicles in 2012. Apart from improvements in the efficiency of motor vehicles, and cleaner fuels (including electric vehicles) it discussed demand management: by providing passengers with transport modes with lower emissions (i.e. public transport, cycling etc.) and by urban planning solutions: locating employment and community services closer to the communities that need them.

It did not suggest building new roads could be an emissions reduction opportunity. Because it isn't. It will simply compound an already dangerous situation.

## WestConnex isn't part of the solution - it's a

 part of an even bigger problem.Dominic Case is President, Climate Change Balmain-Rozelle


[^8]
# Why we need a Royal Commission into WestConnex 

## Andrew Chuter

The WestConnex toll road network isn't just an unpopular infrastructure project. It's a massive failure of planning and of the NSW government to act in the public interest. What's needed is a Royal Commission.

A Royal Commission is typically called whenever there is ongoing impropriety, illegal activity, or gross administrative incompetence. With the following issues mounting up, WestConnex certainly fits the bill:

- Negative findings by both Federal and State Government audits
- Unjustified secrecy and lack of accountability of the Sydney Motorway Corporation
- Exploding costs - when including extensions, the City of Sydney has found the figure is $\$ 45$ billion. The starting figure was $\$ 10.5$ billion
- Over a dozen transport and planning experts have found evidence that leads them to oppose WestConnex
- The original rationales to connect to Port Botany and the airport have not been achieved
- A string of financial failures of the Cross City Tunnel, Lane Cove Tunnel and Brisbane Airport tollway have been ignored while companies involved in those projects have been favoured with WestConnex contracts
- A long history of political donations to Liberal and Labor parties by Transurban, Leighton and John Holland, which stand to hugely benefit from the project
- Evidence of malpractice and misleading traffic projections by AECOM that have been responsible for the EIS for Stages 1, 2 and 3 of WCX
- Serious unresolved corruption allegations against Leightons (now CIMIC), which has been a big part of consortia winning huge WestConnex contracts
- Police reports that criminal bikie gangs have been tampering with speedometers, transporting contaminated spoil and other environmental breaches
- Transport for NSW documents showing that the NSW government is deliberately ignoring public transport solutions in preference for toll roads
- Decisions which ignore an urgent need to take action on climate change and air pollution from vehicle exhaust In 1980, the Kyeemagh-Chullora road inquiry concluded that containers from Port Botany should be largely transported by rail, not road. This inquiry had some impacts over several decades in stopping tollroads going ahead. Why were these lessons suddenly forgotten?

We need a Royal Commission with strong powers at a Federal and State level to put a stop to the toll road folly in Sydney and other capital cities once and for all.
Andrew Chuter is Co-convenor of No WestCONnex-Public Transport

## THE SAGA OF 7 DARLEY ROAD

## Jennifer Aaron, Catherine Gemmell and $C$. Valentine

Why has 7 Darley Road, a block of Stateowned land on the border of Leichhardt and Lilyfield, attracted so much controversy and community concern?


Unoccupied and derelict for many years after attempts to establish a shopping precinct on the site were rejected by Leichhardt Council, its current tenants were eventually successful, despite widespread community opposition, in obtaining approval to open a bottle shop on the site and began preparing the site for renovation in mid-2016.

Controversy surrounding this RailCorp-owned land resurfaced in August 2016 at an 'information session' for the M4-M5 link held at Leichhardt Town Hall by Sydney Motorway Corporation (SMC).

Residents who had come expecting to hear about the impacts of WestConnex on Leichhardt came away disappointed at the lack of information provided. However, Peter Jones (Project director for Stage 3) told some residents in passing that 7 Darley Road or Blackmore Oval were possible mid-tunnel construction sites for the stretch of the M4-M5 link between Haberfield and the 'Rozelle interchange'.

As this news circulated in the community long-term residents who had experienced first-hand serious road traffic accidents along this stretch of road were stunned that the RMS would allow this well-known accident black spot to be considered as a tunnel construction site given that it would bring hundreds of heavy truck movements in and out of the site.

Would the local school kids who arrive or depart from the adjacent North Leichhardt Light Rail stop have to run the gauntlet of truck-and-dogs carting tunnel spoil?

They also wanted to know how anyone could possibly consider sending hundreds of trucks into Darley Road, the main arterial road feeding much of the inner-west traffic from Leichhardt and Lilyfield onto or across the City West Link. It was clear to all that through-traffic would grind to a halt and Leichhardt would become a large rat run.

From this conversation with Peter Jones, Leichhardt Against WestCONnex (LAW) was formed, a grass-roots community group convened by residents who are determined to expose this ill-conceived proposal and who are opposed to the entire wasteful WestConnex project.

LAW set about exposing the unsuitability of the Darley Road site by gathering traffic information, including accident and fatality data, and were successful in harnessing the support of the Inner West Council and its traffic planners in their fight. They took the facts to both SMC and RMS. They were told they were being listened
to'. The Government subsequently proposed a second site, directly next to Leichhardt's local high school.

The community appeared divided, forced to make an impossible choice between two equally-unsuitable sites. LAW successfully lobbied the Council for the engagement of an independent engineer to look at alternative sites and to assess the suitability of both proposed sites. Darley Road was found to be the worst option in terms of risk and local impacts. While the Government has abandoned consideration of the School site, it has doggedly pushed on with consideration of Darley Road, despite all of the independent evidence against its suitability.

In the midst of this work, LAW started its own investigations when it became clear that Dan Murphy's would be opening a new business on the site, despite its looming acquisition for WestConnex. How could a new business be opening when the site was to be resumed by RMS? It was unfathomable to many residents that an expensive fit-out and building renovation would proceed when it could be demolished within 18 months. Compensation would have to be paid but to whom, by whom and how much?

LAW made inquiries and discovered that RMS began discussions with the site's tenants in August after the Leichhardt community information session and advised the tenants that the site was required in October. As acquisition negotiations were underway, Dan Murphy's opened in December, just in time for the bumper Christmas trade.

LAW discovered that in 2012, the lease that had been due to expire in 2018, had been extended to expire in 2038. It was reported that the compensation payment to the tenants could be as much as $\$ 50 \mathrm{~m}$. Residents were shocked that the formerly derelict site was going to cost the State government such a large compensation payout.

LAW wanted to know who approved the lease extension and why. It has now emerged that a great deal of lobbying of the Government had taken place to obtain the lease extension and that Transport for NSW saw fit to obtain three probity advices on the request for an extension. The lease extension was not put to the market and the reasons for not doing this are not yet clear.

LAW will continue to push for the truth. Stay tuned. Jennifer Aaron, Catherine Gemmell and C. Valentine are Co-convenors of Leichhardt Against WestCONnex (LAW)

## DON'T TRUST US? THEN TRUST THE EXPERTS...

## Andrew Chuter

Do your own desktop research -
The following experts have all spoken out against WestCONnex. A simple google search with the word WestConnex followed by any of these names will soon lead you to statements explaining why each of the following highly regarded individuals is convinced that WestCONnex is a regressive project and is doomed to fail. Professor Peter Newman, Professor of Sustainability, Curtin University, Perth
Professor Carmen Lawrence, School of Psychological Science, University of Western Australia, Perth
Professor James Weirick, Faculty of Built Environment, University of New South Wales
Professor Michiel Bliemer, Institute of Transport \& Logistics Studies, The University of Sydney Business School
Professor David Hensher, Founding Director, Institute of Transport and Logistics Studies, The University of Sydney Business School

Associate Professor Philip Laird, Faculty of Engineering and Information Sciences, University of Wollongong
Associate Professor Roderick Simpson, Faculty of Architecture, Design and Planning, The University of Sydney
Adjunct Professor John Stanley, Institute of Transport and Logistics Studies, The University of Sydney
Dr Garry Glazebrook, UTS Sydney
Dr Michelle Zeibots, Institute for Sustainable Futures, UTS, Sydney Dr John Goldberg, Former Honorary Associate, School of Architecture, Design Science and Planning, The University of Sydney
Dr Tim Williams, CEO, Committee for Sydney
Terry Lee-Williams, Chief Transport Advisor, City of Sydney Mat Hounsell, Institute for Sustainable Futures, UTS, Sydney
Ken Dobinson, Director, Friends of Greater Sydney (FROGS) Terry Rawnsley, SGS Economics \& Planning
Chris Standen, PhD candidate/transport analyst, Institute of Transport and Logistics Studies, The University of Sydney

The following question was recently asked of the Sydney Motorway Corporation by the convenor of RAW (Rozelle Against WestConnex)...
Q. All of the most qualified experts on traffic flow \& traffic management firmly believe that WestConnex will actually worsen the Sydney traffic situation. Can you provide the names \& contact details of any recognised experts on Sydney's traffic situation who actually support WestConnex \& are willing to publicly debate this \& provide reliable documentation to support their position?
This was their written answer.
A. WestConnex is part of the NSW Government's Long Term Transport Masterplan 2012. WestConnex is continually assessed by Infrastructure Australia as a high priority transport infrastructure project nationally It has also been assessed by numerous experts within Infrastructure NSW, the Department of Planning and Environment, Roads and Maritimes Services, and Transport for NSW.

# WESTCONNEX: Just who's pulling the strings? 

## Wendy Bacon

More traffic congestion, costly tolls and destroyed communities are not the only problems with WestCONnex. It also sets a dangerous new precedent for Infrastructure planning.

Before delving into the conflicts of interest and cosy deals involved in WestCONnex, the first thing you need to understand is that the NSW Liberal National Party (LNP) government handed over the original planning of WestCONnex to unaccountable private companies that had been previously involved in failed toll roads. These companies have gone on to profit hugely from WestCONnex.

Two names stand out among the corporate crowd: Leighton Contractors (now called CPB Contractors, which is part of CIMIC, which is owned by Spain's biggest infrastructure conglomerate Grupo ACS) and AECOM which is a massive international contracting firm that does everything from managing construction of Las Vegas casinos to supplying environmental services for global mining and oil and gas companies.

After it was elected in 2011, the LNP government set up Infrastructure NSW under the leadership of Nick Greiner, a Liberal ex-Premier who himself had been involved in an early NSW tollway after he resigned from politics in 1992. The pro-developer Infrastructure NSW heavily promoted WestCONnex - a 33 kilometre privatised road network.

But more tollways were going to be a hard sell because a series of failed tollway projects in NSW and Queensland had burnt private investors. So the 'roads lobby' of international and local construction and tollroad companies persuaded the NSW government to take the risk by publicly funding the first stages of planning and construction of WestCONnex.

## ROADS LOBBY BUYS INFLUENCE

You might wonder why the roads lobby would have such influence in NSW. Part of the answer lies in a report published by Senator Lee Rhiannon in June 2016. Between 2010 and 2015, a massive $\$ 13,270,226$ was donated by the roads lobby to the Liberal, National and Labor parties. Of this, $\$ 6,636,638$ was donated to federal and state Labor party branches and $\$ 6,565,299$ to the Coalition, including $\$ 5,651,442$ to branches of the Liberal party. The biggest donors were Leighton Contractors and the Macquarie group.

In early 2013, the NSW government invited several private companies to do the initial WestCONnex planning. These included Leighton and AECOM, both of which had a history in being involved in failed tollroads. AECOM was paid to do traffic modelling for the project while Leighton Contractors and its subsidiary Theiss Constructions were paid $\$ 4$ million to be "industry partners".

That meant that Westconnex, which was to be funded by governments first and then later by citizens who would pay tolls, was planned by companies that had huge commercial interests in the project, rather than by independent transport experts working in the public interest.

## SHINING A LIGHT INTO THE TUNNELS

AECOM was chosen although its inaccurate projections for Brisbane's tollroad Clem 7 were already notorious. Those projections had been done for Leighton. Last year, class actions against AECOM for damage caused by the false and misleading projections were settled for almost


Andy Singer © half a billion dollars. Before the settlement, emails between AECOM and Leighton staff were tendered in evidence. They showed that staff in both companies were aware that investors had not been shown all relevant traffic figures and that the traffic modellers felt under pressure to meet the commercial requirements of companies like Leighton who were paying their fees.

Macquarie Capital, which was also involved in US tollroads, was another company especially selected to be involved in initial WestCONnex planning. It was later awarded a financial scoping contract for WestConnex until 2070.

Macquarie too had being involved with AECOM in tollroads that led to serious questions being asked in a US court case. Finance company Syncora agreed in December 2006 to provide Macquarie with insurance on the basis of what it later claimed in the New York Supreme Court were fraudulent misrepresentations of the objectivity of [AECOM's] traffic forecasts. In a judgment published in 2013, a New York judge found that there was evidence an undisclosed scheme of "success fees" from Macquarie to AECOM that encouraged the boosting of traffic forecasts. According to the judgment, "under-the-table success fees amounted to additional millions of dollars per transaction. None of this was disclosed to Syncora." This case was settled when Syncora took over the Macquarie interests, and agreed to drop the litigation.

After the selected companies had delivered their preferred version of WestCONnex, it proceeded, leaving these companies ideally positioned for further involvement. Later the NSW Auditor General found that the preliminary business case was "deficient and fell well short of the standard required."

## CORRUPTION ALLEGATIONS

But it was not just their involvement in failed tollroads that made Leighton a poor choice. Over several years, Fairfax Media has reported evidence that Leighton Offshore, which is owned by a company based in the Cayman Islands tax haven, paid more than $\$ 20$ million in bribes to secure Iraqi government contracts worth approximately $\$ 2$ billion. Leighton denied these claims.
Last year, the Australian Securities and Investment

Commission (ASIC) began investigating a A $\$ 15 \mathrm{~m}$ payment allegedly made by Leighton to Asian Global Projects and Trading, a UAE group, in August 2011. Early this year, two former Leighton executives were charged in a case linked to the past activities in the Middle East. The executives have denied the allegations.

German construction company Hochtief, the controlling shareholder in CIMIC Group (previously Leighton), was fined $\$ 400,000$ after being found to have engaged in insider trading during the takeover of Leighton.

In a report for The Guardian last year, the ex-Labor Premier of Western Australia Carmen Lawrence reported on allegations against Leighton and more examples of malpractice in AECOM's operations in Canada and the Middle East. She concluded "In Canada, where there are strong debarment provisions, it is unlikely that any of these companies could secure government contracts; in Australia, it is business as usual, despite the evident risk to taxpayers. Surely we can do better."

CIMIC (Leighton), through its subsidiary CPB Contractors, has been a huge WestCONnex winner. It is a partner in contracts for the M4 widening, which is running overtime and overbudget, the M4 East and the New M5. It is shortlisted for Stage 3, a tunnel linking the M4 East and the New M5.

For the M4 East and the New M5, tenders were awarded before planning approval was given for the project. The Environmental Impact Statement (EIS) for both these projects was done by AECOM. Its assessment was contested by independent experts hired by the City of Sydney and other councils. Despite this, the projects were approved.

As New Matilda reported in 2015, while AECOM was doing the EIS, it had other commercial interests in WestCONnex. By October 2015, it had been awarded more than $\$ 33$ million worth of engineering contracts, including for Stage 3 for which the planning process had not even begun. AECOM was also appointed to manage the EIS for Stage 3.

## ROAD LOBBY COUP

Early stages of WestCONnex were managed by the WestCONnex Delivery Authority (WDA). The then Minister for Roads Duncan Gay described his choice of Tony Shepherd as its Chair as a 'coup for NSW'. You could call it a coup for the roads lobby. An ex-Chairman of the Business Council of Australia, Shepherd had a history of involvement in tollroads, including the failed Lane Cove Tunnel, and had previously been involved in Transurban. Transurban now dominates the tollway industry in Australia and stands poised to fulfil its dream of controlling WestCONnex.

In 2015 the NSW government privatised the WestCONnex Delivery Authority and renamed it the Sydney Motorway Corporation. This publicly owned private company is exempt from the NSW freedom of information laws. This means that unlike other publicly funded projects, information about contracts is kept secret.

Next year, the NSW Berejiklian government plans to privatise not just the tolls but the financing and construction of WestCONnex as well. If that happens, the big donor roads lobby will have got everything they wanted. The transport needs of the NSW community and public accountability do not figure in their calculations.

Wendy Bacon is an investigative journalist and political activist

http://rozelleagainstwestconnex.org

## RAW Stage 3 EIS Submission



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This submission was compiled on behalf of RAW - Rozelle Against WestConnex. RAW affirms that we are a non-political organisation $\&$ no donations whatsoever have been received from any political party. We authorise publication of the document in its entirety and further request that it be published in full, without redaction.

## Lodged on behalf of RAW by

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Convenor RAW
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12 October 2017

## 1 Introduction

### 1.1 Purpose of this document

RAW has developed this Submission for the WestConnex M4-M5 Link EIS \& also to assist RAW members to develop their own submissions. Key aspects of the EIS have been selected. Not all chapters in the EIS are covered by this guide. In this Submission, 'the Project' refers to the WestConnex M4-M5 Link.

Members please note that submissions are due by 5pm Monday 16 October 2017 at http://bit.ly/2fS5cb3

### 1.2 Background

- The Project and the context in which it sits is summarised below.


Source: WestConnex M4-M5 Link EIS

The EIS is for the third of five stages of WestConnex that the Government has so far committed to (Stage 1, completed widening of M4 and largely completed tunnel to Haberfield from end of current M4; Stage 2: M5 upgrade and New M5 including St Peters Interchange; Stage 3 the M4:M5 Link subject of this EIS.

- The EIS is based on the fallacy that the M4 and-M5 need linking when they are already linked by the M7, A6 and A3.
- The A3 is the primary eastern link between the two motorways and is shown in the State Road network hierarchy as the M4-M5 Connector.
- The M4-M5 Link enables the expansion of the WestConnex network to include the Western Harbour Tunnel, Beaches Link and M6. These motorway projects, were not part of the WestConnex business case and are not priority projects in any State or Federal roads plan.
- The EIS is a strategy only document, it does not commit to any design and it therefore does not address any local impacts created by the proposed M4-M5 Link. Rather it prepares the pathway for sale of the Sydney Motorways Corporation to the private sector, removing from the responsibility, oversight and control of the Government the final design, cost and implementation of the M4-M5 Link.
- Crucially, to make the sale more attractive, the tunnels between Haberfield and St Peters will be built independently of the Rozelle Interchange.
- This is being done to de-risk the project for the private sector sale, as the tunnels can be built using known standards and technology and generate income from January 2023.
- While the Rozelle interchange remains committed to be opened in December 2023, the design is so preliminary and so complex that it needs to be treated as another stage of the project to ensure that potential private sector funders are willing to invest, knowing they can heavily modify and/or defer the Rozelle Interchange.
- This EIS, therefore, treats the public with contempt. It offers no final design, no commitment to an outcome and only the most vague and unreliable traffic modelling.
- Instead, like a property development, it seeks to get NSW Government approval so that the opportunity to design, build, operate, maintain and toll the road can be sold to private investors, completely outside of the view of the public who will bear the effects on their community for the next 100 years.
- This is a continuation of the appalling disregard for transparency and disregard of the population that bears the brunt of the WestConnex traffic impacts. It displays a lack of understanding of contemporary good practice in transport problem resolution.
- Not only does the project fail to address its most fundamental objective of connecting to Port Botany, the genesis of the entire enterprise, but it repeats the crippling failure of the CityRail network.
- The same Government that is spending many billions of taxpayer dollars via Metro Rail in an attempt to free itself somewhat of the restrictions now faced by a congested City Circle (which imposes a chokepoint on the whole rail network) is now replicating the City Circle's congested effect with a 60 km road network! Even worse, whilst it would make sense to focus our rail network on the centre of our densest employment and residential areas in Australia, which have the greatest economic output per square kilometre WestConnex does the reverse. It will prove the antithesis of common sense when it comes to practicality, economic productivity, creating good value property, environmental planning, social planning and basic transport planning, if Sydney now replicates what have been good public transport links, with more motorways. What we need is additional, efficient public transport, especially rail - be it underground metro, suburban doubledecks or light rail, and costs should reflect need.


### 1.3 The Inner West Council and the City of Sydney also object to the WestConnex M4-M5 Link

- It is understood both the IWC and the City of Sydney strongly object to the WestConnex M4-M5 Link ('The Project') for the following reasons:
- It is a toll road project made for big business and searching for a rationale.
- It fails to meet the primary objectives of providing a direct motorway connection between Western Sydney and Sydney Airport and Port.
- The Environmental Impact Statement does not safeguard communities. Government is seeking planning approval to sell the project to the private sector and discharging its responsibility and control for the delivery of the project.
- There is a lack of strategic justification for the project, No feasible alternatives have been developed or assessed.
- There will be major impacts on the Anzac Bridge (projected 60\% increase in daily traffic) and Sydney City Centre. The EIS forecasts major impacts on bus travel time and reliability.
- The EIS does not adequately account for impacts on health and air quality. The EIS identifies an additional 5 unfiltered ventilation stacks to be constructed in inner

Sydney. In addition local surface roads will be widened and traffic volumes will increase.

- Lack of alignment with the NSW Government's priorities and policies
- Major impacts on the community
- Legacy Impacts and worsening intergenerational equity
- The NSW Government has missed a great opportunity to be truly visionary, recognising and embracing technological change that offers the potential to revolutionise urban travel, support economic agglomeration and deliver on health and wellbeing outcomes.
- Instead the people of NSW will be left with an intrusive inner city motorway that escalating tolls will make unpopular and technological change will render redundant.
- Other global cities are investing in fast and efficient public transport that truly connects homes and jobs, supports the decentralisation of commercial investment and develops a resilient and equitable city for future generations.


## 2 Business Case

- The Business Case for the WestConnex project (made up of the New M4, Iron Cove Link and Rozelle Interchange, M4-M5 Link, New M5, King Georges Road Interchange upgrade and Sydney Gateway was not adequate to justify moving to environmental impact assessment.
- The WestConnex route has changed significantly over time, even after the initial August 2013 Business Case was approved by the NSW Government but not made public. Therefore an Updated Business Case on an updated concept was published in 2015. SGS Economics and Planning undertook a detailed assessment of this and reached the following conclusions:
- Misrepresentation of the Benefit Cost Ratio (BCR) as 1.71 when it was 1.64 .
- The Business Case did not identify Stage 3 WestConnex, connecting the M4 to the M5, as a priority for "filling in the missing links in Sydney's motorway network".
- Modelling for post-2031 conditions was not undertaken, however benefits were assumed to continue until 2052.
- The transport modelling is likely to have underestimated the impact of extra traffic induced by the additional capacity, which would significantly reduce the BCR.
- The Business Case did not reflect global approaches to congestion management, such as transit investment and demand management.
- The Business Case suggested WestConnex would help renew Parramatta Road by reducing traffic on it, despite the modelling showing that many parts of it would carry more traffic, not less.
- Travel time savings are a key component of the positive BCR. A significant proportion of these supposed benefits arise from travel time savings were within the margin of error of modelling, or would be so small that motorists may not notice them (and therefore would not value them). Research ${ }^{1}$ has found that business travellers are more concerned with predictability and reliability of travel times than they are with actual travel time.
- Insufficient justification was provided for the significant travel time savings, and economic benefits, factored into the BCR for business and light commercial vehicles - for instance there was insufficient analysis of origins and destinations of these trips.
- The construction costs appear too conservative - if these increase, the BCR would reduce accordingly.
- Other costs were not accounted for, such as reduced amenity on urban development, loss of land for higher value activities, and the health costs of potentially reduced public transport use.
- In summary, SGS suggested that the actual BCR of the project could be less than 1:1, with NSW taxpayers exposed to the risk that the project may not succeed.

[^9]- Other criticisms of the Business Case focus on the limitations of the process. Searle and Legacy ${ }^{2}$ raise fundamental issues about the way infrastructure business cases in general are developed, and WestConnex in particular.
- The first of these is the manner in which strategic transport and land use planning considerations are evaluated in business cases:
- The Business Case did not factor in the impact of longer total journey lengths on urban sprawl, which will have a flow-cost for infrastructure and servicing.
- The Business Case included benefits from WestConnex supporting more compact commercial land use ("agglomeration benefits"), when this is generally not the result of motorway investment, and is unlikely to be in the area served by Stage 3.
- The Business Case did not attempt to cost the reductions in public transport, especially the loss of fare revenue.
- Ancillary road projects necessitated by WestConnex, such as the potentially \$1BN Alexandria-Moore Park Connectivity Upgrade, should have been included in the Business Case.
- Impact on property values, costs of noise during construction, and loss of business should all have been costed and included in the Business Case
- Loss of heritage to the whole community (not just property owners) should have been included in the Business Case.
- The second is the manner in which other planning issues are excluded from cost-benefit analysis, which is a key component of developing a business case:
- No analysis of equity impacts of the infrastructure investment and the tolling regime, given the lower socio-economic status of many areas of Western Sydney, and the requirement for potential users of WestConnex to own or pay for access to a private vehicle to be able to use it
- The localised impact of air quality around the ventilation outlets should have been accounted for.
- Impacts associated with loss of amenity from reduced access to open space should have been accounted for.
- Searle attributes some of these issues with the Business Case to the decision of the NSW Government to accept the project as part of a State Infrastructure Strategy and other plans before a business case was developed. There was no incentive to explore alternatives or to fully explore the costs and benefits.
- This process has been described as "lock in". Commitment escalates because a project appears in numerous policy documents.
- WestConnex is a clear example of government "locking in" commitment before detailed analysis had been undertaken.
- With the Government fully locked-in to WestConnex, these issues and inadequacies with the Updated Business Case are repeated in the EIS.

[^10]
## 3 Strategic context and project need

The Strategic Context and project need are considered in Chapter 3 of the EIS.

### 3.1 The Project is not integrated with the NSW Government's Strategic Planning process

- The EIS suggests that the Project forms part of an integrated planning solution. This is simply not true.
- While WestConnex might integrate with the wider motorway network, no evidence is provided demonstrating that it integrates with the wider road network - let alone the broader transport and land use system. For example the EIS provides no information about changes in traffic volumes entering the Sydney CBD caused by WestConnex. RMS has only just commenced work to identify which roads fanning out from WestConnex portals will need to be upgraded to deliver large numbers of vehicles to and from the project. It is therefore impossible to form a properly informed understanding of the environmental impacts - the very purpose of the EIS.
- The newly formed Greater Sydney Commission is currently preparing strategic plans (six District Plans and the Greater Sydney Region Plan) for Sydney's long-term future and TfNSW is currently developing Sydney's Transport Future. All motorway projects should be placed on hold until finalisation of these plans.
- The Project focuses on 'catering for traffic growth' (P4.15). This contradicts and undermines the NSW Government's Long Term Transport Master Plan and Future Transport web site which commit to an integrated approach to congestion management focussed on land use planning, demand management, public transport investment and "a coherent whole of network planning strategy", essentially aiming for growth in public transport and containing road demand to that required to serve the freight and servicing tasks.
- The WestConnex program of works has been described as an integrated transport network solution. However, the role and interdependency with public transport and freight rail is not considered. The recent Government commitment to a Metro West requires a rethink on the need for WestConnex. Particularly as the WestConnex business case outlines a mode shift from public transport to the toll road as a benefit required to justify it economically.
- The Western Sydney Airport is due to commence construction next year with completion in 2026. Demand for air travel in Sydney is set to double over the next 20 years. Initial patronage is said to be 10 million passengers per year. Information should be provided demonstrating how (or whether) the project caters for travel to the new airport and the likely lessening of demand to the current monopoly airport.


### 3.2 No project justification - transport outcomes unclear and contrary to NSW Government aims

- The EIS (Section 3.2) does not set out the specific transport needs addressed by the project but states additional road capacity is required to meet a projected increase in trips. It does not set out any trips, desire lines, demand corridors or growth that the WestConnex project is addressing. As a result it is not possible to assess the project's ability to meet those needs. Nor is it demonstrated that projections in growth in population and employment correlate to traffic demand increase along the proposed M4M5 Link. TfNSW data confirms that the number of vehicles entering the Sydney Centre
during the morning peak hour was stable between 2002 and $2012^{3}$ and in fact decreased by some 9 percent in the two years since construction of light rail began ${ }^{4}$. The number of trips by public transport, by contrast, increased by some $38 \%$ between 2002 and $2012^{5}$ and another 10 percent in the two years since construction of light rail commenced ${ }^{6}$.
- The EIS does not set out a credible strategic rationale for WestConnex. There is no informed discussion on the economic geography of Sydney, and the role an integrated transport system has to play in meeting the needs of businesses and residents.
- The cited 'key customers' that would benefit from the project (long distance, freight, businesses) represent a very small minority of those who are forecast to actually use the project (single occupancy commuter vehicles). The key customers could be served by a far more modest project, given they represent an extremely small proportion of projected traffic on the Project.

[^11]
## 4 The Scope of the Project

### 4.1 Unplanned, unfunded Sydney Gateway benefits claimed for Project

- The EIS states that the project will improve connection to the Sydney Airport and Port Botany. It will not. The Premier herself has said that the Sydney Gateway does not form part of the WestConnex project. Without the Sydney Gateway, connections between WestConnex (St Peters Interchange) and Sydney Airport and Port Botany will be via congested surface roads in Botany and Mascot. As the connection is unresolved, it is impossible to determine the effect on demand of the unknown pricing regime that will apply to the Sydney Gateway, nor how much travel time will be incurred - which might actually negate the already marginal proposed travel time savings.


### 4.2 Rozelle and Iron Cove Interchanges do not achieve project objective, do not link M4 East and New M5.

- The Rozelle and Iron Cove interchanges are not to meet the project objective of linking M4 East and New M5 (Part 3.3 of EIS) and should not be included in the overall Project. Existing motorways (Cross City Tunnel and Eastern Distributor) would provide suitable road capacity to avoid the city centre.
- To the west there are the M7, A6 and A3 connections. There has been no modelling provided of whether (with appropriate upgrades) these existing roads might provide far more cost effective and time efficient connections between the two motorways, particularly given their alignments would service multiple demand corridors at the same time.
- The project objectives (Part 3.3 of EIS) include enabling the construction of motorways over the harbour and to the northern beaches. However, the traffic impacts of these motorways in Rozelle have not been assessed. These projects were not part of the business case that justified the WestConnex proposal in the first place. This constant shifting of reason as to why the project is 'justified' points more to a seeming desperation to find some reason to build it, rather than there being a clear need which requires servicing.


## 5 Project Objectives

The project objectives are discussed at Section 3.3, page 3-22 of the EIS

### 5.1 The Project does not enable urban renewal

- The EIS misrepresents the structure of the Global Economic Corridor and overstates the relationship of the project to centres within it by claiming the Project serves centres in the north of the GEC that it does not.
- The EIS asserts that WestConnex will be a catalyst for urban renewal along major corridors. No evidence is provided to back this assertion. The Sydney experience suggests that roads don't - this is not a likely catalyst e.g. Canterbury Road after M5 East; Cumberland Highway corridor after the M7.
- Significant improvements in rapid public transport are required for significant urban renewal. The experience in Sydney is that public transport is a strong and effective catalyst for urban renewal e.g. Green Square; Ultimo-Pyrmont with light rail; the Anzac Parade corridor, again with light rail; and Sydney Metro City and South West at Waterloo and along the Bankstown Line. The key ingredient is the political will to reallocate road space to rapid transit, or invest in dedicated rail solutions.
- The Parramatta Road Urban Transformation project has been put on hold by the NSW Government for a number of reasons, including the uncertainties relating to traffic capacity on Parramatta Road following the construction of WestConnex. To claim this as a benefit is misleading. The project predicts increased traffic congestion on Parramatta Road without the transformation, which clearly is not a benefit, and potentially funnels traffic unable to penetrate the corridor into the privately operated toll road.
- There is relatively limited urban redevelopment potential along the small section of Victoria Road that the Project would decongest, and this section is not been classified by the NSW Government as redevelopment area. To claim this as a benefit is misleading.
- The Rozelle Interchange will prevent major redevelopment in the Rozelle area. This area has been identified by the NSW Government as a major opportunity for urban renewal for over 20 years - it has to be assumed that the recent abandoning of grand renewal plans for the White Bay Power Station by Google indicate that a lack of quality transit integration and the favouring of big traffic through WestConnex are already affecting the choices being made by desirable investors.


### 5.2 Claims congestion will be eased are incorrect and misleading

- The EIS narrowly defines congestion as 'traffic congestion' rather than delays to reliable and efficient access to human capital, goods and services which reduces economic activity and productivity. This results in an incorrect and misleading assessment.
- The method and logic used to develop and assess the Project is similar to methods that have delivered numerous motorways around Australia that have not only failed to ease congestion, but have made it significantly worse.
- There is no reliable evidence presented (or available) that building motorways reduces traffic congestion over the long term. No major urban arterial road project, without carefully considered and implemented pricing signals, has succeeded in easing congestion for more than a few years. This is universally acknowledged in planning
disciplines, and is replicated by the Future Transport website, has been stated by the current Minister for Transport and the current Premier (during her time as Shadow Minister for Transport).
- The EIS projects increases in freight volumes without offering evidence as to how the project enables this. Assertions relating to improvements for freight services rely on the Sydney Gateway Project, which is not part of WestConnex, and which poses significant threats to the crucial freight rail connection to Port Botany. Port Botany itself has questioned whether the current project provides any benefit to it.
- The EIS refers to benefits from road projects that are not part of the project's scope. The full costs, benefits and impacts of these projects need to be considered in a transparent process.
- The EIS asserts that the M4-M5 link would complete the orbital road network between western Sydney and the eastern gateways of Port Botany and Sydney Airport (p4.4). That orbital already exists in the form of the 110km Sydney Orbital - the M2, M7, M5, Eastern Distributor, Harbour Tunnel, Gore Hill Freeway and Lane Cove Tunnel.
- Rather than ease congestion the project is likely to reduce the availability of funds for projects that enable that genuinely reduce congestion (road pricing), give priority for high productivity road users such as delivery and service vehicles or genuinely avoid congestion (public transport in separate corridors/lanes).


### 5.3 The Project will slow down public transport

- According to the EIS, buses travelling to the CBD will be slower, despite the construction of a tunnel between Iron Cove and the Anzac Bridge. Bus travel times along Parramatta Road will improve, but only because bus lanes would be extended. This could be achieved without WestConnex - and for several billions of dollars less! The construction of a park in the Rozelle Goods Yards which would cover the motorway junction below is also being achieved by severing rail corridors which could service the Bays Precinct and Balmain, linking both with the broader Sydney Trains network.


## 6 Project development and alternatives

### 6.1 No strategic alternatives were assessed

- The basic question that the people of NSW need answered by the EIS is:

For the same or lower cost of the project, could we do something that is different to the project that will deliver outcomes that are as good or better?

- The Secretary's Environmental Assessment Requirements (SEARS) require analysis of feasible alternatives to the project. No feasible alternatives have been developed and no objective analysis of alternatives has been undertaken. While Section 4.4 of the EIS purports to cover Strategic Alternatives, it does little more than offer a discussion of why an alternative was not pursued.
- Meanwhile, 'maintenance works' approved by RMS in the Rozelle Goods Yards are undermining the possibility of a new surface light rail extension to White Bay and the Balmain Peninsula. As part of the 'works' RMS is removing all existing rail infrastructure which has sat in place for nearly a century of freight work (until 15 years ago) and the EIS, does not in anyway indicate these potentially valuable rail corridors would be replaced once landscaping is complete. We therefore have a situation where a park is proposed to hide the world's biggest motorway junction but its design deliberately obscures the potential to expand surface light rail connections across the region, which would help reduce traffic.


### 6.2 Alternative road projects must be assessed

- Better use of existing road infrastructure has not been analysed as a feasible alternative. The EIS only refers to existing RMS programs. An analysis of urban road projects recommended in the State Infrastructure Strategy Update 2014 should be conducted as strategic alternatives including:
- Smart Motorways investments on the M4, the Warringah Freeway and Southern Cross Drive-General Holmes Drive
- Upgrading the Sydney Coordinated Adaptive Traffic System (SCATS)
- At very minimum, the assessment of Strategic Alternative 1 (improvements to the existing arterial road network) should:
- Identify key network capacity issues.
- Develop a scenario of investments in (potentially major) arterial road improvements required to address the road network capacity constraints. The City of Sydney's alternative scheme provides one example of what improvements to the existing arterial road network might look like.
- Carry out transport modelling and economic analysis to inform the assessment of the alternative.


### 6.3 Real integrated transport measures must be assessed

- There is no evidence of scenario modelling being used to allow testing the ability of different packages of integrated transport measures to achieve outcomes. The Long Term Transport Masterplan states that integrated approaches are required to manage
congestion. The NSW Minister for Transport claims that we "have to get more people on public transport."
- The assessment of Strategic Alternative 2 (Investment in "alternative transport" modes) should:
- identify key network capacity issues
- identify the shift away from private vehicles required to deliver the necessary relief on the road network to meet the future transport needs of Sydney
- identify the mix of investments in public transport, cycling and walking required to deliver these mode splits.
- use multi-modal transport modelling and economic assessment to inform the analysis and assessment of the alternative.


### 6.4 Travel demand management options must be assessed

- The assessment of Strategic Alternative 3 (Travel Demand Management) should:
- Identify key network capacity issues
- Consider the opportunity for travel demand management measures to address the road network capacity constraints. The measure should aim to retime, re-mode or reduce trips that make less productive use of congested road space.
- Draw on a process of multi-modal transport modelling and economic assessment to inform the analysis and assessment of the alternative.


## 7 Construction Work

### 7.1 Local Councils have no say over construction

- The EIS states that a Construction Traffic and Access Management Plan (CTAMP) "would be developed in consultation with local Councils and stakeholders associated with public facilities adjacent to project site". A similar commitment was made for construction of the New M5. It has been poorly managed. There is limited response to Council input and the Sydney Motorway Corporation and Roads and Maritime Services each deny responsibility and blame each other for a lack of action.
- This is despite the RMS being the client for the Sydney Motorways Corporation. It would appear this is a deliberate strategy of the NSW Government to ensure local communities affected by construction traffic have no reasonable means of managing any complaint. It is undemocratic, against the principles of open government espoused in the election platform of the current government and ultimately escalates community unrest.(P 8-44)


### 7.2 Only partial construction impacts have been assessed

- The EIS states that spoil handling at the Pyrmont Bridge Road Tunnel Site (C9) will "occur 24 hours a day, seven days a week" for about four years. Given the land use surrounding the site is dense residential, what mitigation measures will be used to control noise, light spill, etc. outside normal business hours? Have alternative living arrangements and/or compensation been considered? (P 8-55)
- The EIS focusses on the impact of construction traffic during commuter peak-hours. Given the EIS notes that construction-related vehicles will be limited during peak-hours, information should be provided on the impact of construction-related vehicles when both traffic volumes are higher - in particular during weekday lunch peak and Saturday lunch peak for sites like the Pyrmont Bridge Road Tunnel Site where operations are proposed 24/7. (Tables 8-46, 8-47, 8-48, 8-51, 8-52, 8-53).
- The great number of heritage houses in the Rozelle interchange construction zone has not been specifically addressed. Noise and vibration impacts can have far more significant impacts on these types of properties. There is no functional management plan for these risks, no articulated complaints investigation process nor any articulated compensation and remediation strategy.


### 7.3 Construction impacts people walking and cycling more than people driving

- The EIS notes that "in preparing the traffic staging plans during construction the key considerations (...) include maintaining traffic and lane capacity (...) on the arterial road network, particularly during peak periods; minimising impacts on public transport services (...); and minimising impacts on key active transport links". Existing capacity for both public and active modes of transport should be maintained. (P 8-70)
- The EIS uses criteria to assess the impact of existing walking and cycling routes that will need to be diverted as a result of the M4-M5 Link. The criteria are based on distance only and exclude the additional travel time taken to complete the diversion. This approach is flawed and should also consider travel time - if it did, this would completely change the assessment of the proposed removal of the existing pedestrian and cycle bridge over City West Link. (P 8-71, Table 8-50). Further, the EIS is silent as to whether
the existing pedestrian and cycle bridge over City West Link will be replaced postconstruction (P 8-73)


## 8 Traffic and transport

### 8.1 The traffic modelling approach is fundamentally flawed and inaccurate

## The wrong modelling approach has been used

- All traffic modelling is wrong, the question is: by how much? And what are the implications of the error?
- Incorrect traffic modelling has led to overoptimistic traffic predictions which resulted in low toll revenue from of the Cross City Tunnel, Lane Cove Tunnel and Brisconnex in Brisbane, resulting in eventual bankruptcy.
- The traffic modelling process used to develop the Project is fundamentally flawed because:
- Traffic projections are likely to be significantly different to the actual traffic on the street network
- Traffic volumes projected in the model are in numerous instances well above the physical capacity of the road network.
- There is no statement on the level of accuracy and reliability of the traffic modelling process. This is a major shortcoming and is contrary to the Secretary's Environmental Assessments Requirements.
- WestConnex traffic modelling relies on implausible traffic volumes that exceed the capacity of the road links and intersections at several key locations.


## Modelled future traffic likely will be significantly different to real future traffic

- The traffic model used is an 'unconstrained' model. It assumes that all vehicles will travel on the route with the lowest "generalised cost" (i.e. combination of time and money). But it does not consider whether those routes have the capacity to handle all those vehicles. In the real world people change their time of travel, mode of travel and consider whether to make a trip at all to avoid congested routes. As a result travel patterns in the real world are very different to the patterns identified in models.
- Because the strategic model does not limit the volume on road links and at intersection to their ceiling capacity; it cannot (and was not designed to) be used precisely as it is.
- A mesoscopic model, which can provide more a far greater level of detail than the strategic model used would have ensured a more thorough analysis of the networks' ability to cope with the traffic predicted.
- The traffic modelling process is not fit for purpose and places significant risks on the people of NSW in terms of:
- Traffic impacts that are significantly different to those presented in the EIS.
- Toll earnings that are significantly lower than projections - resulting in government subsidising the owner for lost earnings.
- The modelling process incorporates a highly unusual definition of induced traffic (p. 45 of Appendix H). Induced traffic should not include the increase in trips due population growth and land use changes as these are modelled elsewhere.


## Key Inputs to the modelling process are unpublished or incorrect

- The accuracy of the model outputs can only be as good as the accuracy of the inputs. Projections of key inputs relating to population and employment become very unreliable beyond 10 or 15 years. In addition to this, the transport sector is facing a potentially significant disruption from connected, automated vehicles that may have a significant impact on traffic growth. This has not been considered or modelled.
- SMC is using an unpublished Value of Travel Time in the WestConnex traffic modelling. If the Value of Travel Time adopted is incorrect, then all outputs will be incorrect.
- The induced demand of $0.3 \%$ is too low based on historical experience in Sydney.
- The benefits counted from reduced traffic volumes on roads such as the existing M5 and the Eastern Distributor are unlikely to be realized due to real levels of induced demand.
- The 2023 'cumulative' modelling scenario includes the Sydney Gateway and the western harbour tunnel but neither of these projects are currently committed and it is highly unlikely they will be completed by this date. This raises the question of why did the proponent adopt such a misleading position and how does it affect the impacts stated?
- SMC refuses to release the traffic model and detailed analysis for independent unpaid peer review and scenario analysis.


## Modelling scenarios are poorly defined and provide incomplete outputs

- The narrow boundaries of the areas of operational modelling mean the proponents have not fully assessed the Project's impacts on key strategic centres such as the Sydney Central Business District, Parramatta Road, the Anzac Bridge, the City West Link, the Crescent and the flow of traffic north to Drummoyne at the approaches to the Iron Cove Bridge where gridlock already occurs.
- It is not understood why a mesoscopic modelling approach was not undertaken to gain a better understanding of impacts to the surrounding road network.
- The modelling conclusions are internally inconsistent. There is an assumption that traffic would dissipate at the edge of the motorway with no negative impacts on the CBD, Mascot and Alexandria. However there is also an assumption that additional roads would be needed to cope with said traffic.
- The EIS (including Appendix H) fails to provide traffic modelling outputs to assess impacts of the Project on CBD streets and intersections. Given the highly constrained and congested nature of the CBD, NSW Government policy focusses on reducing the number of cars in the CBD in favour of public transport, walking and cycling. The proponent should provide intersection performance results for the following intersections:
- The ANZAC Bridge off-ramp to Allen Street/Botany Road
- The Western Distributor off-ramp to Druitt Street (buses)
- The Western Distributor off-ramp to Bathurst Street
- The Western Distributor off-ramp to King Street/Sussex Street
- Gardeners Road and Botany Road
- All intersections within the modelled area in the Sydney CBD
- Whilst chapters 10 and 12 of Appendix H show mid-block level of service at interfaces with interchanges and points within the tunnels, there is no information about other midblock points such as the ANZAC Bridge. Part 8.3 .3 of the EIS refers to increases in daily traffic forecasts on the Anzac Bridge/Western Distributor, particularly in the AM peak, as traffic accesses the M4-M5 Link and future forms of traffic or network management are intended. Information about the traffic forecasts for the Anzac Bridge/Western Distributor should be provided.
- The construction impact of the future Western Harbour Tunnel and Beaches Link entry and exit ramps connecting to City West Link/The Crescent has been assessed. The operational traffic impact of these ramps has not. This should be completed and publicly released before determination. There is no verifiable or understandable data to determine the veracity of claims of traffic generated by these other links.


## Traffic modelling was insufficient to assess the full impacts of the project.

- The underlying traffic modelling and outputs was insufficient to:
- Demonstrate the need for the project.
- Understand impacts of dispersed traffic on connecting roads, such as the Anzac Bridge, and whether they have available capacity to meet the predicted traffic discharge. Any congestion on exits has the capacity to negate all travel time savings to the exit point, given the small predicted benefits.
- The strategic model (whole system) inputs traffic volumes that simply cannot be accommodated in the road interchanges and feeder routes. It is physically impossible to fit that amount of traffic on a road.
- The modelling area shown in Figure 8-5 should be extended to include Johnston Street and The Crescent/Minogue Crescent/Ross Street corridor to Parramatta Road to provide clarity on how these feeder routes are envisaged to operate in 2023 and 2033. It should include the modelling assumptions applied.
- Volumes on the main links (the trunks) cannot be as high as what is claimed in the EIS. It is physically untenable. This would suggest surface roads across the Inner West should also be modelled in detail to see how they will cope with the overflow.
- The modelling shows the motorway exceeds reasonable operating limits in the peak in less than ten years.


## Unreliable traffic projections snowball into compounding errors in the Project business case, design development and environmental assessment

- Unreliable traffic projections lead to significant and compounding errors in the design, EIS and business case processes, including:
- Dimensioning of motorway tunnels and interchanges (on- and off-ramps) and expansion of roads feeding traffic to and discharging traffic from the toll road
- Assessment of the project's traffic impacts on other parts of the street network
- Assessment of overall traffic generation and induced traffic associated with the project
- Emissions based on traffic volume and driving style (e.g. stop-start driving in congested traffic leads to higher emissions impacts)
- Toll earnings and financial viability, which could trigger compensation claims or negotiated underwriting that would materially undermine the State budget position given the cost of the project.
- Other key inputs to the business case that are derived from strategic traffic modelling, including: purported reductions in crashes, purported improvements in productivity etc.


## Evidence shows that the approach to traffic modelling in NSW is flawed

- The traffic modelling approach applied in the EIS is commonly used in NSW. This approach has proven to be flawed.
- Infrastructure Australia compared predicted and actual traffic levels and found that the assumed steady growth in traffic did not occur. . In Sydney, urban congestion levels are growing at around one third of the forecast rate. (See Figure 1, below)

Figure 1 -Growth in Road Vehicle Kilometres Travelled 2001-2011


Table 3 (above): Road agency urban congestion growth forecasts for the decade to 2011-12 versus actual growth. Source: Infrastructure Australia analysis, using BITRE Working Paper 71 Estimating Urban Traffic and Congestion Cost Trends for Australion Cities (2007) and actual statistics for same reported by BITRE to 2011-12.

- A review of RMS traffic counts on numerous arterial routes within the 'sphere of influence' of the Project have shown no growth in traffic since 2006. During this period Sydney's population (as measured by the Greater Capital City Statistical Area) has grown at a rate of $1.5 \%$ per annum on average. Roads measured:
- Parramatta Rd at Ashfield (station 25002), Leichhardt (station 20012), Five Dock (station 30005) and Annandale
- ANZAC Bridge (station 20001)
- Anzac Parade Moore Park (station 03022 b/w 2008 and 2017)
- Cleveland Street (station 03022)
- Sydney Harbour Tunnel (station 01003)
- O'Riordan Street (station 02309)
- Sunnyholt Road Blacktown (station 69198)
- General Holmes Drive Brighton-Le-Sands (station 23055)
- King Georges Rd Roselands (station 24026)


### 8.2 Specific examples of shortcomings of the traffic modelling process

The projected traffic volumes would exceed the capacity of the motorways and surrounding surface roads preventing them from delivering their objectives.

- For example The St Peters / Sydney Park Interchange will overload the Mascot road network. As a result traffic levels were reduced to fit the modelling.
- In order to make the model work, traffic that exceeds the free flow capacity of the network was reassigned to hours outside of the peak - i.e. the model assumes people shift the time they travel. However, the potential of shifting journey times to reduce overall traffic demand is not considered.
- The modelling has thousands of unreleased cars at key locations; i.e. in reality those unreleased vehicles would result in vehicle queues and or network failure.
- The modelling shows severe degradation to the City West Link if the Western Harbour Tunnel is connected.
- The modelling shows severe traffic levels and increased congestion on Johnston St, and The Crescent (+80\% ADT).
- The modelling shows significant increases in traffic on Victoria Rd (+20\% ADT) which is already at capacity.
- The modelling makes no mention of bus lanes on Victoria Rd. If these lanes were not modelled as car lanes the assumed capacity of the road is incorrect.


## The modelling uses land use forecasts from the 2014 Plan for Growing Sydney.

- The modelling does not consider the latest plans from the NSW Government's Greater Sydney Commission despite them being released nine months ago.
- The proponent excludes the impact of the Western Sydney Airport from analysis of the project. This could have a significant impact on traffic volumes.
- The EIS notes that the project design and land use forecasts have changed significantly since the Stage 2 and Stage 3 EIS. However the cumulative analysis does not quantify the expected change on those roads. The EIS only notes significant increases in traffic volumes.


## The modelling assumes a fixed mode share and does not properly consider the possibility of mode

 shift.- The modelling assuming journey time shifting when mode shifting is more likely.
- The proponent does not consider the impact of the Sydney Metro West. This project will have a significant impact on travel behaviour (and specifically mode share).
- The statements made that public transport cannot serve diverse areas are empirically incorrect. The area the WestConnex is being built in has higher public transport mode use than the Greater Metropolitan Area as noted in the IES.


### 8.3 Specific traffic impacts associated with the Project

## Misleading information on benefits and impacts of the Project

- The EIS provides traffic projections for the 'With Project' scenario and 'cumulative' scenario (which in addition to links in the 'With Project' scenario includes the Beaches Link and F6 motorway connections), but when referencing the traffic benefits/impacts in the early sections, the EIS appears to cite the 'with project' scenario rather than Cumulative Scenario. It is unclear which scenarios the Business Case best reflects.


## Numerous intersections and roads will be significantly worse with the project

- The Project will have significant impacts on the streets near on- and off-ramps. Modelling shows that the Anzac Bridge will have 60\% more traffic in 2033 because of the Project.
- The key intersection performance tables in App H (p. 258 St Peters and 248 Rozelle) demonstrate that many intersections will either worsen (at the worst case scenario of LOS F) or remain unchanged particularly in 2033, including the following intersections:
- Princes Highway/Canal Road
- Princes Highway/Railway Road
- Unwins Bridge Road/Campbell Street
- Campbell Road/Bourke Road
- Princes Highway/Campbell Street
- Ricketty Street/Kent Road
- Gardeners Road/Kent Road
- Gardeners Road/Bourke Road
- Gardeners Rd/O'Riordan Street
- Victoria Road/Lyons Road
- Victoria Road/Darling Street
- Victoria Road/Robert Street


## The Project will worsen bus performance and reliability

- Road congestion is reducing bus performance and reliability. The project will make it worse.
- The EIS says traffic on ANZAC Bridge will increase by 2023 (p.8-103).
- Traffic modelling shows bus times will be slower into the city in the morning (p.3-19).
- The EIS identifies capacity constraints on ANZAC Bridge (p3-19). This project will dump more traffic onto the ANZAC Bridge.


## The Project will have major impacts on the Sydney CBD

- The analysis shows Anzac Bridge/Western Distributor is currently at or close to capacity, particularly in the AM peak where existing operational and geometric features of the road network limit the capacity. The EIS notes that under all scenarios the Project will generate significant additional traffic on these links, requiring major and costly additional motorway infrastructure to the CBD. This is despite the fact that the NSW Government recognises that there is no capacity to accommodate additional car trips to the CBD and all its policies aim to allocate more street space to public transport, walking and cycling. The EIS must assess and identify any upgrades that the Project will cause or require. (App H p. xxxiii)


## The Project will have major impacts on the roads to the west and south

- The EIS notes that the Project would cause additional traffic congestion on a number of key roads including: Gardeners Road and Bourke Road in the south, Frederick Street (Ashfield), Johnston Street (Annandale) and numerous streets in Mascot (p.8-103). The EIS must assess and identify any upgrades that the Project will require.


### 8.4 No details provided of road upgrades required by the Project

Impacts on surrounding road network and required upgrades not detailed

- The EIS notes that an 'Operational Traffic Performance Review' will be undertaken at 12 months and five years after the M4-M5 Link is open to consider the need for "postopening mitigation measures" (Page 223, Chapter 9.8, Appendix H). We object to this approach as it is contrary to the requirements of the EIS process and reflects a clear admission on the part of the NSW Government that:
- It has no confidence in the traffic modelling process to predict to any reliable extent the likely impacts of the Project;
- It is unable or unprepared to describe the true impacts of the Project on the people of NSW;
- It has not considered or budgeted for the potentially significant additional roadwork required to address the impacts of the Project (or the need for road upgrades to feed toll-paying drivers to WestConnex.
- The nature of these "post-opening mitigation measures" are unknown and their impacts could be significant including intersection and road widening (and associated property loss), banning parking in local centres, removal of trees, footpaths and cycling facilities. The people of NSW have a reasonable expectation to understand whether such impacts form part of the Project and they should be detailed in the EIS. They should not be left to a "wait and see" approach. Not only a proper analysis of demand, but also of traffic dispersion should be provided for connecting roads up to three kilometres from every exit and entry portal and the capacity of those roads analysed.
- The EIS (App H, p.269) refers to the RMS plans to carry out "network integration" works surrounding the Rozelle interchange once the project is complete but offers little detail of the nature of the works. It mentions the intersection of the Western Distributor and Pyrmont Bridge Road at Pyrmont, Western Distributor near Darling Harbour and a review of kerbside uses near the Western Distributor, The Crescent, Johnston Street and Ross Street.
- Given that these works could be undertaken to deliver toll paying drivers to the privately owned WestConnex, there is strong potential for a conflict between private profit and community impacts. The cost of any such integration works should very clearly be attributed to the Project cost, and should not impact on the available RMS budget for the State road network's normal maintenance and improvements budget.
- the Secretary's Environmental Assessment Requirements (SEARs) for the EIS (Page 82 - Table 8-1) require the Applicant to consider the operational transport impact of toll avoidance however information provided on toll avoidance in Chapter 9.8 (Page 222) of Appendix H is limited to four short paragraphs.


### 8.5 Impacts on people walking and cycling

- Part 3 of the Secretary's Environmental Assessment Requirements requires assessment of the likely risks of the project to public safety, paying particular attention to pedestrian safety. This is not addressed in Chapter 8.
- We note that pedestrian amenity around the bottom of Victoria Road, where it meets The Crescent will be severely hampered with the removal of two footbridges which currently provide safe and easily scaled regional links to major bus nodes. These also provide safe and easy walking links between Rozelle Bay and Balmain. In the absence of these bridges, pedestrians running late for buses may feel compelled to cross Victoria Road itself, which could pose severe risks for them given the current levels of traffic upon it. There have been suggested 'upgrades' to Victoria Road's traffic lanes, but why is this necessary if the Iron Cove Link was meant to 'traffic calm' the area? Traffic should not be allowed to amplify in this area.
- A direct pedestrian link could also be encouraged between Gordon Street and the Rozelle Bay light rail stop on the other side of the CityWest Link, as the Gordon Street area of Rozelle is the most remote from light rail services and the line of Gordon Street itself is quite direct for possible pedestrian links into Balmain.
- The existing pedestrian links to the Rozelle Bay light rail stop (in Annandale) should not be hampered by escalation in traffic forecast which occur as a result of upgrades to The Crescent or CityWest Link. Indeed the design of safer, better separated and more efficient active transit links will be required wherever possible at this intersection (and others) and should be encouraged for the local communities of Rozelle and Annandale as part of any road upgrades as a condition of approval.


## 9 Air Quality

- Scientists have found that there is no safe level of air pollution. As pollution levels rise deaths and hospitalisations rise too ${ }^{7}$. A thorough cost-benefit analysis that takes into account the health effects due to increased exposure is required.
- Concentrations of some pollutants $\mathrm{PM}_{2.5}$ and $\mathrm{PM}_{10}$ are already near the current standard and in excess of proposed standards (p9-81, p9-93). It is critical to note that these particulates are a classified carcinogen and are known to have critical, and at times fatal, consequences if elevated. People living within 500 metres of heavily affected areas have demonstrably shorter lives, much higher incidences of chronic lung conditions and higher levels of cardiovascular diseases.
- Significant declines in pollutants are due to improvements to in-vehicle technology and fuel. However, plans to improve standards for heavy vehicles, which disproportionately contribute to NOx emissions and thus ozone, appear to have stalled. The proponent needs to provide a scenario that sets out impacts due to delays in adopting improved emission standards.
- The EIS states that the impact on regional air quality is minimal and thus concludes that the project's impact on ozone is negligible. Ozone is a major pollutant and Western Sydney, Campbelltown in particular, suffers the worst ozone pollution. Major components of ozone are generated in eastern Sydney and drift west. Previous environment departments have spoken about the need for an eight-hour standard concentration and goal for ozone (DECCEW, 2010, State of Knowledge: Ozone). OEH needs to provide information about the value of this standard and on the impact of new motorways on that level.
- Given that the modelling for air quality is based on the traffic modelling, which, as shown above, is fundamentally flawed, and given poor air quality has a significant health impact the EIS should not be approved until an independent scientifically qualified reviewer has analysed the stated air quality outcomes and identified any deficits

The St Peters and Rozelle interchanges at are of particular concern. St Peters will have large volumes of vehicles accelerating and decelerating as they enter and exit tunnels and access roads, next to proposed playing fields. This is complicated by emissions stacks located in the Interchange - whereby pollution from the interchange is supercharged by the emissions from the stacks.

The Rozelle interchange has an unprecedented concentration of stacks, in a valley, adjacent to densely populated suburbs. The interchange has steep and long climbs, increasing emissions concentrations, which will then be pumped into the surrounding area. The modelling does not account for stop-start conditions. However, the EIS shows significant traffic volumes heading onto the Anzac Bridge, which already operates at the lowest Level of Service ( $F$ ) in peak times. There will be significant queues heading into the tunnels, greatly increasing the level of emissions. The existing M5 in peak conditions may provide a more realistic base line.

[^12]
## 10 Land Use and Property

- The project would take land intended for housing and employment specified in The Bays Precinct Transformation Plan.
- Increased traffic on Gardeners Road will require land use planning changes that may decrease the value of land.
- Increased traffic on local roads will decrease residential amenity and decrease the potential for new higher density housing. This will affect numerous streets, with particularly major impacts on The Crescent, Minogue Crescent, Ross, Mount Vernon, Catherine, Ross and Arundel streets in Glebe; and Euston Road, McEvoy, Botany, Wyndham, Bourke and Lachlan Streets in the Green Square area. In the redevelopment areas, land adjoining these streets may suffer a loss of development potential, a loss of value and will bear the additional costs of designing for noisy environments.


## 11 Urban design and visual amenity

- Both the St Peters Active Recreation Area and the Rozelle Interchange Open Space are a false promise. Unless there is an agreement for construction and management these will be grassed wastelands with compromised amenity, adjoined by ventilation facilities in Rozelle, divided by above ground portals and difficult to access across busy roads.
- Despite the promise of the WestConnex business case, Parramatta Road remains a barrier to urban revitalisation. There is no discussion of this commitment in the EIS.
- Improving connectivity with public transport, including trains, light rail and bus services in the inner west would make the Parramatta Road corridor a more attractive place to live, work and socialise.
- Increased traffic cannot be accommodated in Central Sydney. It will further impede pedestrian movement and comfort and undermine easy access to public transport and reduce access to jobs over large areas of the city. It will undermine the attractiveness of Central Sydney to internationally competitive high productivity firms and their potential employees. Overall productivity is adversely affected.
- Increased traffic on Bridge Road, Wattle Street and the Western Distributor will reduce the amenity and value of the investment in the renewal of the Fish Markets and renewal of the Bays Market District


## 12 Flooding and Drainage

- At the western end of Bignell Lane near Pyrmont Bridge Road existing flood depth was identified up to one metre in the 100 year ARI. The NSW Government Floodplain Development Manual (2005) identifies this location as a high flood hazard area.


## 13 Non-Aboriginal heritage

- Of the six areas of disturbance and 11 Historical Archaeological Management Units (HAMUs) identified in Chapter 20 of the EIS, all sit within the Inner West Council's LGA, not that of the City of Sydney.


## 14 Greenhouse gas

- The operational Green House Gas (GHG) assessment is based on the WestConnex Road Traffic Model version 2.3 (WRTM v2.3).This model has major flaws and the unreliable outputs of the model put into question the GHG assessment.
- The assessment states that there will be a net increase in GHG emissions in 2023 under the 'with project' scenario, however under the 2023 'cumulative' scenario, there will be a net decrease in emissions (page 22-15). However, as the 'cumulative' scenario includes the Sydney Gateway and Western Harbor Tunnel projects, which are not yet confirmed to proceed, the 'with project' scenario should be considered as a likely outcome - which would see an increase in emissions. Both scenarios for 2033 show a reduction in emissions vs the 'do minimum' scenario. This is likely to rely on 'free-flow' conditions for the Project for most of the day. Should this not occur, the modelled outcomes could be significantly different.
- Emissions were not modelled beyond 2033. This is an omission, as the contractual life of the project is significantly longer, until 2060. The EIS states, on page 22-15 that 'it is expected that savings in emissions from improved road performance would reduce over time as traffic volumes increase'. Therefore, the longer-term outcome of the project is likely to be an increase in GHG emissions
- Targets for renewable energy and carbon offsets are not aligned with NSW government policy. (Table 22-8)
- Targets for renewable energy and offsets are unclear.


## 15 Cumulative Impact

- The TfNSW website says "The Sydney Metro West project is Sydney's next big railway infrastructure investment" but the Cumulative Impact assessment by AECOM (App C) does not include Sydney Metro West. A business case for Sydney Metro West should be completed before the determination of the Project.
- The Inner City Regional Bike Network has not been included among projects assessed under Cumulative Impacts. It is identified by Infrastructure Australia as a Priority Initiative and should be included.
- The Inner West Greenway was considered but not assessed as a cumulative impact. One of the claimed project benefits of the proposal is improved east/west crossings of Parramatta Rd for pedestrians/bikes and the Greenway would achieve this and should be assessed and provided as part of the project. The Greenway was part of inner west LR project before it was deferred in 2011 and Inner West Council has done extensive work on how to complete it.
- King Street Gateway is not included in modelling or Cumulative impact assessment however will alter the road geometry and capacity adjacent to the project.
- No cumulative impact has been considered for the removal of the freight rail corridor in the Rozelle Rail Yards. It is possible light rail extension to the Balmain Peninsula could be achieved, were this rail corridor preserved for future adaptive re-use. This link (running under Victoria Road) could serve both the Cruise Terminal and White Bay Power Station - as well as any future development. It is also possible that such a
connection could be linked to the city easily, using the Glebe Island Bridge. This would streamline Inner West LRT services by a substantial amount, bypassing Glebe, the Pyrmont loop and Ultimo. Unfortunately, the Minister responsible for the Rozelle Goods Yards site can order this corridor's removal immediately - regardless of whether the EIS for Rozelle Junction (as part of Stage 3) is approved or not. It would be a short-sighted and obvious mistake to do this, without first considering the existing rail corridor's potential to link the region more broadly, with something other than cars - as doing so would greatly reduce congestion.
- It should also be considered that if the existing tracks were removed in the near future, a clear land corridor should still be reserved for any possible surface rail replacements. This must be respected as something for future land developments to work around. The ideal time for such a land corridor to be preserved is now, whilst the Goods Yards are still in Government hands, and it is our strong recommendation that it be done as a condition of any approval - but also in the event of WestConnex Stage 3 failing to be approved. Light rail is something which can service this region much faster than the Sydney Metro West proposal, which is a long way from approval - but if the Metro is approved, it would be complimented by an interchange with the more regional light rail network at White Bay.

12 October 2017

From:

Sent:
To:
Subject:
Attachments:
system@accelo.com on behalf of Jo Haylen MP [summerhill@parliament.nsw.gov.au](mailto:summerhill@parliament.nsw.gov.au)
Monday, 16 October 2017 4:10 PM
Submission Details for Jo Haylen MP of State Member for Summer Hill (object) 228170_171016 M4M5 Jo Haylen signed submission_2017Oct16_1609.pdf; 228170_ 171016 Reportable donations_2017Oct16_1609.pdf

Confidentiality Requested: no
Submitted by a Planner: no
Disclosable Political Donation: yes
Name: Jo Haylen MP
Organisation: State Member for Summer Hill (State MP)

Address:

Marrickville, NSW
2204
Content:
Please see attached

Submission: Online Submission from Jo Haylen MP of State Member for Summer Hill (object)
https://majorprojects.accelo.com/?action=view activity\&id=228170
Submission for Job: \#7485 WestConnex M4-M5 Link https://majorprojects.accelo.com/?action=view job\&id=7485

Site: \#3247 M4-M5 Link
https://majorprojects.accelo.com/?action=view site\&id=3247


# JO HAYLEN MP STATE MEMBER FOR SUMMER HILL 

The Hon. Anthony Roberts Minister for Planning Minister for Housing Special Minister of State GPO Box 5341
Sydney NSW 2001

16 October 2017

## Submission: Proposed M4-M5 Link (Application no. SSI 16_7485)

Dear Minister,
Since the release of the M4-M4 Environmental Impact Statement, I have been contacted by countless inner west residents - particularly residents of Haberfield and Ashfield whom I represent in the NSW Legislative Assembly - concerned about the ever-expansion of WestConnex and the extension of intolerable impacts for local communities.

I maintain my strong and categorical opposition to each and every stage of the project, including the M4-M5 Link.

## A. Broader concerns with the M4-M5 Link project

WestConnex will not work. This polluting toll-road is tearing apart established and vibrant suburbs and communities, with this latest stage extending the destruction we have seen in Ashfield, Haberfield and St Peters to Rozelle, Annandale, Lilyfield and Camperdown.

The Government has failed to properly invest in the public transport that would transform our city, including the mooted Western Metro and muchneeded light rail along Parramatta Road.

Instead, the Government is continuing with its flawed project of building expensive and polluting toll-roads that tear inner west communities apart.

I echo the strong concerns of local resident groups objecting to the imposition of unfiltered exhaust stacks in Rozelle and St Peters, as well as the serious engineering concerns raised in relation to the underground interchange at Rozelle.

I am deeply concerned about the proposed impacts on inner west parks, including Blackmore Oval, Buruwan Park and King George Park, Rozelle.

As is the case in Haberfield, I strongly reject any move to locate unfiltered exhaust stacks in close proximity to schools, child care centres, nursing homes and residential homes. I am also deeply concerned at reports that Members of the Government have rejected exhaust stacks in north shore electorates, concerned as they are about air quality, however are content to force extreme particulate emissions on inner west kids.

I share the strong concern of my Opposition colleagues and local community groups including Leichhardt Against WestConnex (LAW) in relation to the Darley Road site. Serious allegations have been raised regarding the leasing arrangements for the site and I concur that proper investigation of these leasing arrangements should be made available prior to any planning approval being granted.

I also note recent reporting indicates the Government has rejected the only private bidder to lodge a tender to construct the Rozelle Interchange and the significant rebuke of Sydney Motorway Corporation this represents.

The reluctance of the private sector to construct the interchange raises serious questions about the viability of the project as a whole. It reveals that the project is unworkable and will not be able to be constructed as designed. It is clear that the Interchange was isolated in the project planning so as to improve financing for the project.

Finally, I am concerned that elements of the Western Harbour Tunnel, a project yet to be detailed in any way by the Government, are included in this design.

While I understand that tunnel stubbs are included with the aim of minimising any future prospective impact on local residents, I share residents' alarm that WestConnex continues to grow, swallowing more and more suburbs in its path.

## B. Preferred Infrastructure Report

Given that many of the details provided in this Environmental Impact Statement are indicative in nature and subject to further review, I strongly urge you to release the Preferred Infrastructure Report for public feedback PRIOR to making your decision to grant planning approval.

It is critical that the community have an opportunity to review and comment on the specific impacts provided in the Preferred Infrastructure Report, particularly given that construction options may necessitate blocks of residents being immediately adjacent to new construction sites.

I am also concerned that residents and stakeholders will not have an opportunity to comment on the detailed designs for the project. The details are critically important to understanding the impacts of the project, and it is a significant failing that communities will not have this opportunity.

## C. Planning approval

The conditions of approval established in the planning approvals for the M4 East and New M5 stages of WestConnex have been ineffectual and frankly insulting to affected residents.

Since work commenced on the M4 East project almost two years ago, I have worked assiduously to help residents affected by the worst of WestConnex construction. I have been frankly appalled by the lack of basic protections afforded to local residents, schools and community groups during years of difficult construction.

Residents have reported impacts including but not limited to:

- Unacceptable levels of dust: Residents are regularly forced to clean homes, vehicles and yards. Residents have sought assurances that the dust does not contain dangerous silica or other pathogens that may pose a health risk.
- Persistent noise and disruption: There has been no coordination of construction and associated utilities work between agencies. The serious omission of intra-agency coordination has meant that planned respite breaks in construction have been non-existent, with work essentially taking place around the clock.
- Vibration: Residents adjacent to the construction sites have reported unacceptable levels of vibration, leading to damage of property including wall cracks and damage to foundations. Vibration and property damage have been reported well beyond the boundaries of the project indicated in the M4 East planning approval. Concerning vibration has been reported by home-owners situated above the tunnels, with little to no protections afforded to affected residents not adjacent to construction sites.
- Local traffic: Heavy vehicles are regularly deployed on local streets, posing a risk to pedestrians and residents, as well as contributing to noise and other disruptions. Residents also report that construction workers have regularly parked private vehicles in local streets, adding additional pressure to local parking. I am disappointed and alarmed that basic mitigation measures - including a crossing guard at Haberfield Public School - have not been granted by the Berejiklian Government.
- Vegetation: Local trees and vegetation have been decimated by WestConnex, particularly in Haberfield, and the impact on local parks far worse than foreshadowed in the EIS for the M4 East. Reg Coady Reserve has been used for construction worker parking, and vital green space alienated and rendered unusable.

The community will not accept conditions of approval that do not afford protections to local residents. Conditions of approval must be both effective and strongly enforced, in consultation with other stakeholders including local councils.

## D. Construction in Haberfield and Ashfield

I note that the EIS outlines two options for new tunnelling in Haberfield: one within the existing construction zone at Wattle Rd, Parramatta Road and Walker Ave; or the other at an expanded construction site on Parramatta Road West requiring additional acquisition of property. In either instance, construction in Haberfield will continue well beyond the 2019 deadline for the M4 East to the end of 2022, with $24 / 7$ tunnelling that will last for almost two years.

This is unacceptable and represents a significant breach of faith with the Haberfield and Ashfield communities, who were assured that construction would cease with the completion of the M4 East project.

Now, an additional construction site is proposed less than 200 metres from Haberfield Public School and requiring the acquisition of additional commercial properties. Parents at Haberfield Public School are understandably concerned that the proposed construction site at the Muirs site will increase the levels of dust, noise and disruption for students and staff.

More than 600 students move to and from the school each day, posing a significant risk and parents are concerned that is approved, the site will result in increased heavy and light vehicles on Bland and surrounding streets.

I note that a child was recently struck at the crossing on Bland Street and that parents report that promised Sydney Motorway "spotters" - staff employed to watch vehicle movements in proximity to the school - are not regularly present.

Haberfield Public School parents and staff are also concerned that the proposed site will see round-the-clock spoil haulage and storage, resulting in significant noise impacts for students studying at the school.

Parents are also concerned at the potential harm from dust and other airborne pollution from the site. The school is regularly affected by thick dust as a result of existing construction work and there is considerable concern that a site in closer proximity will see a spike in respiratory illness at the school.

Residents adjacent to the proposed sites - particularly in the units at 115 Alt Street, Ashfield, and surrounds, and residents on Ilford Avenue, Ashfield, Bland and Alt streets who will be exposed to unacceptable levels of disruption, noise and dust from round the clock construction.

I am also concerned about the ongoing impacts of construction on residents in Northcote Street, Wattle Street, Walker Avenue, Bland and Alts Streets. Residents on these streets have lived through unacceptable disruption and this project will extend that period for years.

Many residents have made decisions about their future - including whether they wish to stay in Haberfield or Ashfield - based on the broken promise that work would be completed by 2019 and extending construction is a breach of faith with them and the community as a whole.

This EIS provides little information is provided as to how the project would manage "interface agreements" with utility providers, leaving residents in doubt as to whether their significant concerns around the coordination of construction activities will be better managed.

I also raise concerns with the impacts of construction for residents at Alt Street, Martin Street, Waratah Street and Dobroyd Parade, who will be impacted by construction of the connecting tunnel beneath their homes.

I note that residents in Family and Community Services (FACS)-owned properties have experienced significant impacts with little to no assistance from Sydney Motorway Corporation or the Department of Housing.

FACS must be directed to take a more hands-on approach to assisting FACS tenants negatively impacted by WestConnex and must assess the suitability of their properties at Alt Street and Dobroyd Parade given the impact of noise, vibration, traffic and dust.

## E. Traffic congestion

Many residents have raised concerns with increasing traffic as a result of the M4-M5 Link, both during construction and after.

The use of existing above-site construction sites for ancillary activities, including worker parking and offices, will dramatically increase the density of light vehicles on local streets in Haberfield. It is unclear as to whether these sites will accommodate parking for workers associated with the entire length of the tunnel project.

Up to 150 cars will be parked at the Northcote or Parramatta Road East civil sites, depending on which is chosen. Wolseley Street will see additional light vehicle traffic as workers access the site and park their vehicles. Up to 90 staff will be present at some construction sites at night during peak construction workforce periods.

Heavy truck movements and spoil handling 24/7, with up to 140 daily truck movements in Haberfield depending on which construction option is chosen.

This will place unacceptable strain on local roads and streets, and I raise particular concern that the safety of students at Dobroyd Point Public School and Haberfield Public School is being put at risk with no effective strategy to manage traffic around these locations. I note that Haberfield

Public School's request for a crossing guard following a child being struck has been ignored.

The community is also outraged at proposals to locate large electronic signs on local streets, including Waratah Street and Dobroyd Parade. These signs are completely out of character for the heritage suburb of Haberfield and undermine the Government's argument that traffic would be taken off local roads.

These signs were not included in the EIS for the M4 East project and are a significant over-reach by Roads and Maritime Services, Sydney Motorway Corporation and the Department of Planning.

The Minister must scrap plans for these signs, investigate alternatives that reduce the visual impact for local residents, and also rule out additional signs of this magnitude on local streets in the inner west.

## F. Exhaust stacks:

An exhaust stack for the M4-M5 Link will be located in the existing ventilation facility on Wattle Street, in close proximity to Haberfield Public School, child-care centres, nursing homes and private residences.

I am concerned that only half a page was dedicated within the thousands of pages of the M4 East EIS on the cumulative impacts on air quality from locating an unfiltered exhaust stack at this location. Now, the placement of a second unfiltered exhaust facility within the existing tower is being treated as a fait accompli.

At minimum, the exhaust stacks in Haberfield and indeed along the entire route, must be filtered. I note the Premier herself is a proponent of stack filtration and urge you to acquiesce to this important demand from the affected community.

I am also concerned that temporary ventilation facilities will be installed at various locations as part of the construction process, often directly adjacent to residential homes. These facilities will have a negative impact on air quality, and also contribute towards construction noise.

## G. Tunnelling Route:

The proposed tunnel route travels from beneath Wattle Street and Alt Street, impacting local streets around Martin Street and Algie Park, converging at Rawson and Dalhousie Streets and then onto Rozelle and St Peters under Turner Avenue, Tillock Street and Dudley Street.

As with the M4 East and New M5 projects, I share residents' concern about the impact of vibrations for above residents, as well as possible pollution of ground water and destruction of established infrastructure.

Similarly, I raise objection with the fact that residents once again will not be compensated for the compulsory acquisition of sub-surface land. In other States including Victoria, residents are able to claim compensation for subsurface acquisition for similar projects. It is unacceptable that homeowners affected by tunnelling directly beneath their home have no recourse to compensation.

Also, the boundary from tunnelling routes and construction sites where residents are eligible to apply for an assessment and compensation for damage must be extended. Multiple residents have complained that they have been impacted by construction and suffered property damage, despite living outside the narrow zone that determines eligibility.

Given the scale and complexity of the project, this zone must be expanded to properly acknowledge and mitigate damage to property.

Appallingly, the EIS fails to indicate how the M4-M5 tunnels would interface with tunnels for the proposed Sydney Metro project, saying only that there is "insufficient public information available."

While I welcome the decision by Roads and Maritime Services to abandon plans for weekend clearways on King Street, Newtown, I am concerned at continuing plans for a weekend clearway on Liverpool Road/Hume Highway, Ashfield. The imposition of a weekend clearway on the main street of Ashfield will place additional pressure on local businesses.

I also note that the EIS indicates Liverpool Road/Hume Hwy, Ashfield will be used as a spoil route for the M4-M5 Link project, jamming the shopping precinct of Ashfield with heavy vehicles and trucks. This will further imperil the viability of Ashfield's business district and must be abandoned.

## Conclusion

WestConnex is $\$ 10$ billion over budget and counting. It does not connect to the airport or port as was initially intended. It will compound traffic congestion, decrease air quality, and subject motorists to decades of expensive tolls, all while wreaking havoc across inner west suburbs.

I strongly urge you and the Government to reassess this ill-conceived project and to explore substantive alternatives that refocus on public transport connections to Sydney's western suburbs.

I note that the City of Sydney and Inner West Council have made submissions offering substantive amendments to the proposed design of the M4-M5 Link and I urge you seriously consider these credible alternatives. It is imperative that the Government address the need for greater public transport alternatives to yet another polluting toll-road.

If you choose to approve the project, I call on you to learn from the many mistakes of the first two stages of WestConnex and to put in place the strictest conditions of approval that protect local residents from the impacts of this project.

Yours sincerely,


Member for Summer Hill

## Political Donations Disclosure Statement to Minister or the Director-General

If you are required under section 147(3) of the Environmental Planning and Assessment Act 1979 to disclose any political donations (see Page 1 for details), please fill in this form and sign below.

## Disclosure statement details

Name of person making this disclosure
Jo Hanlen

Planning application reference (e.g. DA number, planning application title or reference, property address or other description)

Your interest in the planning application (circle relevant option below)
You are the APPLICANT
YES I
10
OR
You are a PERSON MAKING A SUBMISSION IN RELATION TO AN APPLICATION

## Reportable political donations made by person making this declaration or by other relevant persons

*State below any reportable political donations you have made over the 'relevant period' (see glossary on page 2). If the donation was made by an entity (and not by you as an individual) include the Australian Business Number (ABN).
*If you are the applicant of a relevant planning application state below any reportable political donations that you know, or ought reasonably to know, were made by any persons with a financial interest in the planning application, OR
*If you are a person making a submission in relation to an application, state below any reportable political donations that you know, or ought reasonably to know, were made by an associate.


Please list all reportable political donations—additional space is provided overleaf if required.
By signing below, I/we hereby declare that all information contained within this statement is accurate at the time of signing.
Signature(s) and Date


112

| Name of Donor | Donor's residential address | Name of party or person for whose benefit the donation was made | Date of donation | Amount/ value |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Italian Friends of Labor | 10-Dec-15 | \$ | 100.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Banks | 18-May-16 | \$ | 500.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) | 26-May-16 | \$ | 70.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (QLD Branch) - Rankin | 25-Jun-16 | \$ | 100.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Macquarie | 25-Jun-16 | \$ | 75.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Canterbury | May-June 2016 | \$ | 400.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Grayndler | June -Dec 2016 | \$ | 140.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - City of Sydney | 20-Aug-16 | \$ | 115.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian labor Party (NSW Branch) | 22-Sep-16 | \$ | 160.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Wollongong | 22-Sep-16 | \$ | 75.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Country Labor) | 3-Nov-16 | \$ | 320.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Granville | 27-Feb-17 | \$ | 120.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Young Labor Left | 27-Feb-17 | \$ | 100.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) | 28-Feb-17 | \$ | 75.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Labor for the Arts | 2-Mar-17 | \$ | 30.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Londonderry | 9-Mar-17 | \$ | 100.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Sydney | 14-Jun-17 | \$ | 200.00 |
| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Maitland | 26-Jun-17 | \$ | 100.00 |
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| Jo Haylen | 299 Marrickville Rd, Marrickville | Australian Labor Party (NSW Branch) - Cootamundra | 12-Oct-17 | \$ | 100.00 |

## 212

From:
system@accelo.com on behalf of Tanya Plibersek MP
[Tanya.Plibersek.MP@aph.gov.au](mailto:Tanya.Plibersek.MP@aph.gov.au)
$\begin{array}{ll}\text { Sent: } & \text { Monday, } 16 \text { October } 2017 \text { 11:49 PM } \\ \text { To: } & \text { Submission Details for Tanya Plibersek MP of Tanya Plibersek MP (object) } \\ \text { Subject: } & \end{array}$

Confidentiality Requested: no
Submitted by a Planner: no
Disclosable Political Donation: no
Name: Tanya Plibersek MP
Organisation: Tanya Plibersek MP (Federal Member for Sydney)

Address:

Surry Hills, NSW
2010
Content:
RE: WestConnex M4-M5 Link Environmental Impact Statement (EIS).
Application number SSI 7485
I write to provide feedback regarding the WestConnex M4-M5 Link Environmental Impact Statement (EIS).
Westconnex was supposed to join Western Sydney with the port and airport.
Having reviewed the EIS and consulted with community groups and local residents I wish to raise a number of concerns and questions.

Traffic Congestion
WestConnex Stage 3 will cause havoc in the Sydney suburbs of Alexandria, Erskineville, St Peters, Newtown and Green Square.

Successive State Governments have sought to increase urban density in these suburbs, with little thought given to public transport and infrastructure solutions. In addition to this residents will now have a seven lane highway and carpark on their doorstep.

I have major concerns regarding increased traffic on congestion and road usage at the St Peters interchange. The combined traffic of the M4 and M5 that will converge on the St Peters interchange will cause traffic chaos that will then disgorge onto local roads that are already running over capacity.

The 010. M4-M5 EIS Vol 1Ab Ch08 Traffic and transport document does not seem to have fully considered the effects of the St Peters Interchange on roads in Alexandria, Green Square, Rosebery, Kensington, nor much of Erskineville and Newtown. These areas will no doubt be severely negatively impacted by this development and more work should be done on traffic projections by increasing the boundary of the microsimulation area to understand the current traffic flows and volumes and how this will change if the project proceeds in its current form (Figure 8.6, page 8.15). Making local suburban roads into multi-lane highways is not a solution.

Table 8.73 (page 8-104) indicates that with the project there will only be a $2 \%$ improvement (reduction) to traffic on non-motorway roads and a $2 \%$ improvement (increase) in travel speeds in the City of Sydney LGA, which doesn't seems to be much improvement at all for the money spent and inconvenience caused by all of these construction works and changes.

Section 4.43 Traffic and Transport of the Community Guide discusses modifications to the road and cycle networks during and post-construction, but does not mention likely traffic impacts on local roads. This must be examined as
these areas are already over-capacity.
Further, it is vital that weekend clearways are not imposed on King Street, Newtown.
Parking for employees and contractors in the construction phase
Parking and transport for employees and contractors at all worksites must be considered and planned for. Stages 1 and 2 saw allocated parking areas fill up, and contractors and employees using local car parking spaces as overflow. This has caused inconvenience and anger for local residents who have to contend with major changes in their local environment because of construction and are denied the ability to park near their homes, schools and public amenities. I note that Document 008. M4-M5 EIS Vol 1A Ch06 Construction work, Section 6.6 .6 (page 6.92) calls for 'around 150 car spaces' for the St Peters interchange and I would hope that this will cater for all of the various workers employed at, contracted to or visiting this site. I also note that there are no spaces catered for at the Pyrmont Bridge Road tunnel site.

## Bridge Road School

Document 008. M4-M5 EIS Vol 1A Ch06 Construction work, Section 6.5.13 (page 6.66) details the Pyrmont Bridge Road tunnel site. I am still concerned for staff and students at Bridge Road School, which is located across Parramatta Road from this site.

Although there are only 34 pupils at this school it is a special needs school so I ask again if any consideration has been given to their needs and any impact that the tunnels site may have on air, visual, and noise quality. Further, have any discussions been initiated with the school community about the effects of construction?

Naturally I am also concerned by uncapped exhaust stacks located near other schools in the area such as Haberfield, Rozelle and Balmain.

## Legacy Project/s - Green Space

It is of the utmost importance that no green space is lost because of this project and that any remaining lands postconstruction be turned over to the community for recreational use wherever possible. Any trees that have been removed, such as those on Euston Road, Alexandria, must be replaced. It is also vital that all local roads are restored post-construction.

I ask that you take these concerns into consideration. Stage 3 of this development, should it proceed, will have a profound effect on the residents that live near the construction and final works, so every effort should be made to listen to the needs of the people. The residents will still be there, living with WestConnex, long after construction has been completed.

[^13]Submission for Job: \#7485 WestConnex M4-M5 Link
https://majorprojects.accelo.com/?action=view job\&id=7485
Site: \#3247 M4-M5 Link
https://majorprojects.accelo.com/?action=view site\&id=3247

From:
Sent:
To:
Subject:
Mon, 16 Oct 2017 06:18:43 +0000

Program (org_comments)
Attachments: 228234_Final GreenWay Missing Links Update_Oct 2017_20170ct16_1712.pdf, 228234_GreenWay DL brochure for emailing_Sept 2014_2017Oct16_1712.pdf, 228234_GreenWay MCA stage 1_ Final Report_April 2016_20170ct16_1712.pdf, 228234_Submission on West Connex M4M5 Link EIS_GreenWay Program_13 Oct 2017_20170ct16_1712.pdf

From: system@accelo.comOn Behalf OfNick Chapman
Sent: Monday, 16 October 2017 5:13:54 PM (UTC+10:00) Canberra, Melbourne, Sydney
To:
Subject: Submission Details for company Cooks River to Iron Cove GreenWay Program (org_comments)
Confidentiality Requested: no
Submitted by a Planner: no
Disclosable Political Donation: no
Name: Nick Chapman


Address:

260 Liverpool Rd, Ashfield, NSW
2131
Content:
See uploaded submission +3 attachments

Submission: Online Submission from company Cooks River to Iron Cove GreenWay Program (org_comments)
https://majorprojects.accelo.com/?action=view activity\&id=228234
Submission for Job: \#7485 WestConnex M4-M5 Link https:///majorprojects.accelo.com/?action=view job\&id=7485

Site: \#3247 M4-M5 Link
https://majorprojects.accelo.com/?action=view site\&id=3247

Have you explored the GreenWay?

greemway.orષ.al

a sustainalble transport corviclor
The GreenWay and Inner West Light Rail corridor makes it easier to get to and from the City and around the Inner West without using your car. The recently extended Inner West Light Rail runs from Central Station in the City. through Pyrmont and the Inner West to Dulwich Hill, where it connects up with the City to Bankstown heavy rail Line.

The light rail runs every 10 to 15 mins between 6am and midnight (later on Fridays and Saturdays). Visit www.transportnsw.info for service details.

The aim of the GreenWay is to provide a continuous cycling and walking path from the Cooks River cycleway to the Parramatta River at Iron Cove, where it connects to cycle and walking paths to the City and along the Parramatta River foreshores. The existing off-road section of the GreenWay extends North of Longport Street. Summer Hill over Parramatta Road to IronCove and the popular Bay Run. Some Southern off-road sections are in place, but a lot more needs to be done South of Longport Street, the GreenWay consists mostly of temporary sections along quiet local streets. There are 8 wayfinding signs at intervals along the GreenWay. The route is also identified by marker signs and white stencils painted on the surface of local streets and off-road paths.

## Community Culture \& Art

The GreenWay Program taps into the creativity of the Inner West community and celebrates the unique qualities of the GreenWay and its colourful history through art, place making and community culture.

Activities include the annual GreenWay Art Exhibition. environmental art. murals, public art trails and interpretation of indigenous and contemporary culture in the Inner West through art and story telling.



## Cadigal Wangal Land

The GreenWay is situated on the lands of the Cadigal Wangal people of the Eora Nation. Hawthorne Canal was originally Long Cove Creek, marking the boundary between the Cadigal and Wangal Aboriginal group lands

The GreenWhay is a bush link and green corriclor
The GreenWay is an important green corridor for native animals and plants in Sydney's urbanised Inner West It provides excellent habitat for reptiles, birds, flying foxes, bats, possums, frogs and populations of the endangered Long-nosed bandicoot.
Residents of the GreenWay catchment can help to protect local plants and animals by taking steps such as

- Removing exotic plants and weeds and planting local native plants, shrubs and trees to provide extra habitat
- Keeping cats and dogs indoors from dusk to dawn. Bandicoots and many other native animals are nocturnal and are vulnerable to predators.
- Discouraging urban foxes by keeping your compost enclosed and picking up fallen fruit and food scraps. - Avoiding or minimising the use of insecticides by using natural alternatives.


## Would you like to volunteer for the Green Way?

Inner West Environment Group (IWEG)
For over 10 years the IWEG has been establishing and caring for a number of bushcare sites within and outside the Inner West Light Rail and GreenWay corridor: Working bees typically take place at one of the IWEG sites every third Sunday of the month. Everyone is welcome and no prior experience is needed, as volunteer training and equipment is provided at the working bee. Following completion of the light rail extension. IWEG is establishing several additional compensatory bushcare sites, with support from TNSW.
For details about upcoming working bees and
a bushcare site near you, visit www.iweg.org.au

## Friends of the GreenWay

The Friends of the GreenWay is an apolitical community group which has been campaigning for the completion of the Cooks River to Iron Cove GreenWay since 2007.
The Friends' group is always looking for new members to help with its ongoing campaigns including promotion. displays and letter writing. If you want to assist a good cause and have some fun at the same time, then please visit www.friendsofthegreenway.org.au

## Other Volunteer Groups

Several other community groups are active along the GreenWay (or close by) including the Cooks River Mudcrabs. Ashfield Council GreenWay Bushcare, Marrickville Council Biodiversity Volunteer Program and various locat history and community arts groups. Checkout what's going on via your local Council website or visit www.greenway.org.au

## Discover the GreenMay using pectal power

Contact your local Bicycle User Group (BUG) and find out about a range of cycling activities, including supervised rides along sections of the GreenWay and to other destinations. Visit the "trail section" on the GreenWay website to locate a BUG near you.

WWW.
greenway .org.au
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City of Canterbury Cryed Cafural Doremigy

## Cost Benefit Analysis Framework for the GreenWay Corridor

## Stage 1: MCA Report

GreenWay
April 2016

Independent insight.

This report has been prepared for The GreenWay. SGS Economics and Planning has taken all due care in the preparation of this report, However, SGS and its associated consultants are not liable to any person or entity for any damage or loss that has occurred, or may occur, in relation to that person or entity taking or not taking action in respect of any representation, statement, opinion or advice referred to herein.

SGS Economics and Planning Pty Ltd
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Offices in Canberra, Hobart, Melbourne and Sydney

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## EXECUTIVE SUMMARY

## What is the GreenWay?

The GreenWay is an urban green corridor in Sydney's inner west running from Iron Cove to Cooks River. The corridor was a disused goods rail line which has now been renewed as a light rail, cycling, walking, arts, environmental and community corridor. It's also starting to perform a role as a knowledge-based, creative industries corridor connected to Broadway and CBD. It represents a truly holistic urban renewal initiative with a view to the future needs of the inner city economy.

Significant investment has already been made along the corridor, however more is required to fully realise its potential. Many of these remaining investments represent 'missing links' (sometimes literally, in terms of bike paths). In isolation each investment is difficult to justify to policy makers, however they all contribute to realising the overall GreenWay 'package of benefits'.

## A framework to evaluate the GreenWay initiative as a whole

A cost benefit framework can help to articulate this holistic package and potentially support further strategic and capital investment in the corridor through providing a structure to the evidence base

Rather than looking at the incremental improvements in isolation, four options have been used to clearly evaluate the Greenway initiative as a whole. This highlights how each small investment builds toward an overall outcome for the corridor which cannot be seen (or valued) when looking at in isolation.

OPTIONS FOR THE GREENWAY

| No investment | Current investment | Partial investment | Full realisation |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| What if no investment was ever made | Already planned investment will occur, but nothing else | Most of the main cycleway links are developed | All links along with social, environmental and planning investment |

The study aims to separate out the costs and benefits of the light rail line development from the investment in the cycle route and associated park, amenity and planning investments. Whole synergise between the two are significant and are acknowledged.

This report will act as an initial qualitative assessment of the costs and benefits and provide supporting evidence that the non-market benefits are 'real' - a proof of concept evaluation.

This will be completed using research and data analysis and will be brought together using a Multi Criteria Analysis (MCA). This will form the foundation of a full cost benefit analysis, where benefits and costs can (largely) be monetised together. This will require further research into the appropriate methods of placing dollar values on certain benefit types, plus research on how certain benefits can be quantified in the project.

## Understanding the costs and benefits of the GreenWay initiative

The GreenWay corridor is more than just number of local transport and amenity investments. Economic shifts and policy directions highlight its significance at a much broader level with the potential to unlock a range of benefits for development and renewal. This initial evaluation highlights that the individual investments are far greater than the sum of their parts.

To robustly evaluate any project economists have clear rules to ensure costs and benefits are not over, or under, counted in an assessment. There should be no 'double counting' of the same benefit and only the 'incremental' benefits from the project (compared to the base case) should be considered. In addition the triple bottom line - social, environmental and financial should be considered.

Costs are relatively clear and quantifiable. Therefore, the MCA has focused on understanding the spectrum of benefits (or dis-benefits) of the GreenWay initiative across the following categories:
-Direct transport improvements and associated time travel savings

- A more sustainable and resilient transport network
- Renewal stimulus for new and more diverse developments
- Economic uplifts from more connected and productive jobs
- Social benefits with improvements to health, safety and sense of place/community
-Environmental benefits with reduced emissions and increasing urban habitat for native and endangered species.

The MCA has applied weightings to effectively operate as a sensitivity test. Four weighting scenarios were used to focus on different evaluation perspectives: Uniform, Economic, Social and Transport.

The full realisation option is the optimal scenario under all weightings except the economic weighting see below chart. This demonstrates the significant benefit each individual investment makes when they all come together to realise the whole GreenWay initiative corridor.

Under Economic weighting, the partial realisation option is the more effective as it is able to still deliver similar benefits of transport time saving and mode shift for a lower cost. However, this option would not deliver the same environmental or social benefits and the full realisation of the GreenWay.

MULTI CRITERIA ANALYSIS RESULTS


Source: SGS Economics and Planning
The GreenWay project provides a high amenity corridor to support and attract housing density and knowledge jobs and creative industries employment. Improving the GreenWay area, including the bike path, will make these development opportunities more appealing and take the pressure off the other existing infrastructure. With both the new light rail line in the area and renewal of the GreenWay combined there would be enormous synergistic benefits associated.

## How the Greenway can unlock benefits from the light rail corridor

This study has largely focused on the GreenWay initiative in isolation. However, the GreenWay runs parallel to a newly established light rail corridor. This major transport investment has provided benefits to the corridor, significantly improving its connectivity and catalysing investment and activity around its stops.

Full realisation of the GreenWay initiative can improve the amenity around this transport investment and provide a 'lastmile' connection through safe and welcoming pedestrian and cycling links.


The greenway can help unlock significant benefits from the existing light rail investment

This can effectively unlock benefits along the corridor which the GreenWay alone or the Light Rail alone could not have achieved.

## 1 INTRODUCTION

### 1.1 What is the GreenWay?

The GreenWay is an urban green corridor in Sydney's inner west running from Iron Cove to Cooks River. The corridor was a disused goods rail line which has now been renewed as a light rail, cycling, walking, arts, environmental and community corridor. The GreenWay program was developed from a grass roots vision in the 1990s to foster greater community connections in this part of Sydney, facilitate sustainable transport and education, enhance the surrounding urban environment, and improve local awareness and enjoyment of the area's history and culture.

It is starting to perform a role as a knowledge-based, creative industries corridor connected to Broadway and the CBD. It represents a truly holistic urban renewal initiative with a view to the future needs of the inner city knowledge economy. Significant progress has been made in recent years towards achieving the objectives of the program, with the majority of the actions identified in the 2009 Master Plan for the Corridor either completed or substantially underway.

While significant investment has already been made along the corridor, more is required to fully realise its potential. Many of these remaining investments represent 'missing links' (sometimes literally, in terms of bike paths). In isolation each investment is difficult to justify to policy makers, however they all contribute to realising the overall GreenWay 'package of benefits'.

### 1.2 Purpose of this report

A cost benefit framework can help to articulate this holistic package and potentially support further strategic and capital investment in the corridor through providing a structure to the evidence base.

The aim of this report is to provide a multi-criteria assessment of four options:

- a base scenario in which no investment was ever made in the GreenWay;
- a current scenario option in which already-planned investments are assumed to take place but none further occur;
- a partial realisation scenario in which most of the main cycleway links are developed; and
- a full realisation scenario in which all the missing links are developed along with social, environmental and planning investments along the route.

FIGURE 1 OPTIONS FOR THE GREENWAY

| No investment | Current investment | Partial investment | Full realisation |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| What if no investment <br> was ever made | Already planned <br> investment will occur, <br> but nothing else | Most of the main <br> cycleway links are <br> developed | All links along with social, <br> evironmental and <br> planning investment |

The study aims to separate out the costs and benefits of the light rail line development from the investment in the cycle route and associated park, amenity and planning investments.

This report will act as an initial qualitative assessment of the costs and benefits and provided supporting evidence that the non-market benefits are 'real' - a proof of concept evaluation.

This will be completed using research and data analysis and will be brought together using a multi criteria analysis (MCA). This will form the foundation of a full cost benefit analysis, where benefits and costs can be monetised together. This will require further research into the appropriate methods of placing dollar values on certain benefit types, plus research on how certain benefits can be quantified in this project.

### 1.3 Understand the GreenWay investments and purpose

The GreenWay has been the focus of a program of urban renewal, a key piece of which has been the light rail route. As part of the next stage of urban renewal, the councils of Leichhardt, Marrickville, Ashfield and Canterbury have been aiming to upgrade the shared path, improve the safety of major road crossings, improve linkages with other cycle routes in the area and undertake placemaking and social investments in the area.

Figure 2 shows the GreenWay route, existing and planned cycle routes and key areas for upgrades.

FIGURE 2 GREENWAY AND MISSING LINKS


The Northern Links, from Iron Cove to $K$, has already been upgraded and is well patronised by recreational cyclists, but the lack of links to other routes means that it is not heavily used by commuter cyclists.

The Central Links between E and J are used by cyclists much less, as this route has to contend with crossing the busy Parramatta Road and a rail line.

The Southern Links, stretching from E to A, are infrequently used and mostly by locals due to a lack of attractive links with other major cycle routes.

## What is the GreenWay trying to achieve?

The purpose of GreenWay extends beyond encouraging cycling through improved cycling infrastructure.
Ultimately it is a plan for placemaking, where people can travel, socialise, exercise, play, create and work amid green spaces and shady trees while feeling part of their community. Greenways goals are to foster community connections, facilitate sustainable transport, enhance the urban environment, promote sustainability education and encourage greater awareness and enjoyment of the local culture.

Some of the initiatives introduced to promote these goals include:

- Murals and public art along the corridor
- Urban bushcare sites and working bees to create green spaces, community engagement with public space and social engagement
- Regular festivals and art exhibitions
- Working with university design teams to create light rail stops that create a sense of safety and community
- Establishing a bandicoot education and awareness program.

The GreenWay has come a long way since the late 1990s, and stakeholders are now looking forward to 2019 for the next stages of GreenWay development.

A number of key priorities have been identified for further development. In particular, there is a high priority on finishing the missing links in the GreenWay cycle route, and implementing a more rigorous evaluation of costs and benefits of the GreenWay corridor.

## 2 THE STRATEGIC JUSTIFICATION

The GreenWay corridor is more than just number of local transport and amenity investments. Broader economic shifts and policy directions highlight its significances at a much broader level.

### 2.1 Economic context

There have been significant structural changes in Australia's and Sydney's economies in recent times, which have spatial implications and consequences for transport and initiatives such as the GreenWay.

## Structural changes in the macro-economy

In the Australian economy generally, traditional manufacturing industries have declined in their share of economic output, while the service and knowledge economy has grown rapidly. This reflects the shift in Australia towards the production of services rather than goods, and the shift from labour-intensive work to businesses which are capital and knowledge intensive. As a result, there are more people working in sectors such as finance, engineering, IT, legal and at universities, and fewer in more industrial roles in manufacturing, mining, and agriculture.

Figure 3 illustrates this, showing the change in gross value added by industry as a share of GDP in Sydney between 1995 and 2015.

FIGURE 3 SYDNEY INDUSTRY STRUCTURE


[^14]The economic geography of Sydney has also changed, with freight and industrial businesses relocating from inner city areas to the outer suburbs, particularly in Western Sydney. Conversely, knowledgeintensive businesses want to be located in central and well-connected areas.

## Agglomeration driving the new knowledge economy

Agglomeration economies give rise to greater efficiency through economies of scale, shared production and consumption inputs, and knowledge sharing between firms through large numbers being located in the same place.

As knowledge industries do not require the large land areas or access to raw materials that traditional industrial businesses do, firms are attracted to central city locations by the benefits of agglomeration, and can be more densely located in office spaces. Even with congestion and higher rents, professional services are drawn to these areas because they provide significant competitive advantages. This is particularly in the size of their potential customer base, formal and informal knowledge transfers between co-located firms, and the ability to source skilled labour.

High amenity and vibrant places also play a critical role in supporting these knowledge industries. That means it's just as much about the connection between the banker and the lawyer as it is about the cafes, restaurants, parks and streetscape.

## The spatial geography of Sydney and effective job density

Previous analysis conducted by SGS has examined the level of agglomeration across Sydney through an index of effective job density (EJD), as shown in Figure 4. This uses data at the Statistical Area 2 level to calculate the number of jobs available in an area within a reasonable travel time, and reflects the huge concentration of employment in Sydney's CBD and inner suburbs compared to outer metropolitan areas.

FIGURE 4 EFFECTIVE JOB DENSITY


Source: SGS Economics and Planning

With the benefits of agglomeration likely to attract more jobs to well-connected areas, this presents challenges in terms of both transport and public spaces. As housing costs remain expensive in Sydney, population growth is anticipated to diverge spatially from jobs growth. This will place pressure on the transport network - a more diversified network (beyond private motor vehicle) can build resilience and improve health and other outcomes. Inner areas will also become more densified. This will place
pressure on existing social and community infrastructure, particularly as these new residents trade location and connectivity for private spaces (such as big houses and backyards).

## Implications for the GreenWay

These changes in Sydney's economic structure, the concentration of employment in the central city, and the likely impacts on transport to and from the city have implications for the GreenWay corridor.

As the economy shifts towards knowledge intensive industries, with more of these jobs concentrated in the inner city and surrounds, the GreenWay's connections to other parts of Sydney's cycle networks become increasingly important. This includes those that link with the cycleways in the CBD, as well as those connecting to other major centres where large proportions of the population live.

Congestion is also likely to increase as a result of the central concentration of jobs, placing more pressure on private and public transport infrastructure. Transport modes like cycling will be consequently important in providing an alternative for those travelling reasonably short distances. The strategic location of the GreenWay has the ability to increase resilience in the inner city network by providing an alternative option for people travelling to work, while also providing an efficient and pleasant way to travel for those living in the inner west.
Improving transport links and travel speeds, can also increase the EJD in an area, as more people are able to access more jobs, and employers are able to find more potential employees.

High amenity corridors and improved connectivity are also more likely to attract educated workers and knowledge industries, which will be important in the future with the wider shifts in the economy, and the decline of traditional industry.

### 2.2 GreenWay in the broader policy agenda

There has been a concerted effort in recent years to improve rates of participation in active transport across Sydney at the metropolitan and local level, and improve the city's green spaces and urban environment. These improvements have been recognised as not only good for the environment and health but also good for the economy.
"The GreenWay project aligns with the strategic aims and objectives of many existing State and local policies"

As a result, the GreenWay project aligns with the strategic aims and objectives of many existing State, metropolitan, and council policies, particularly those concerning cycling, active transport, and the provision of green space.

## Metropolitan plans and strategies

## A Plan for Growing Sydney - Sydney Green Grid Project (2014)

The Plan for Growing Sydney is the guiding document for Sydney's metropolitan area for the next 20 year. The development of a city wide 'Green Grid' network is one of the key actions identified in the Plan in working towards the creation of more interlinked and multipurpose open green spaces. The development of the Grid is intended to promote a healthier urban environment, improve community access to opportunities for recreation and exercise, encourage social interaction, support both active and public transport modes, and contribute to improving Sydney's environmental resilience.

The city-wide Green Grid includes the development of open spaces, bushland, parks and other natural corridors and landscapes, which connect residential areas to jobs, transport and centres.

The GreenWay corridor perfectly aligns with these ambitions and forms an important regional connection in the overall Green Grid Project. The NSW Government Architect's Office and the Greater Sydney Commission have both identified the GreenWay as a best practice example of the implementation of the Green Grid concept.

## NSW Bike Plan (2010)

The NSW Bike Plan was developed with the intention of growing bike-riding over a ten year period, and encourages actions that will make cycling as accessible to people as driving a car, particularly for short journeys. Initiatives identified in the Plan include the development of interactive mapping and information for cyclists, improved signage, more facilities such as bike parking at employment and public transport centres, and increasing community awareness and knowledge of cycling and its benefits.

The Plan identifies the GreenWay corridor as a major missing link and priority route for the metropolitan Sydney bike network.

## Sydney's Cycling Future (2013)

The Sydney's Cycling Future Strategy aims to prioritise investment in bicycle infrastructure and support a cultural shift towards more people using bikes for daily transport. The strategy targets solutions aimed at the 70 per cent of NSW residents who would like to use cycling more as a means of everyday transport, but need the practice to be made a safer and more convenient option.

Separated cycleways and connected networks which link to major transport interchanges and city centres are identified as priorities for investment, along with promoting the use of existing cycleway infrastructure, and engaging government and other key stakeholders in the process.

The completion of missing sections of the GreenWay route are noted as a priority for the Inner West area, with local neighbourhood links to transport nodes seen as very important.

## Inner Sydney Regional Bicycle Network - Demand Assessment and Economic Appraisal (2010)

This report established the economic benefits of developing the Inner Sydney Regional Bicycle Network of separated cycleways. This built on previous work which identified specific enhancements to the network that would improve the quality of cycling links within the inner Sydney area, providing greater connectivity and separation between cyclists and traffic along key arterial corridors.

Part of the network that was established through this process is the GreenWay corridor route. The implementation of the entire network was estimated to generate significant benefits, outweighing the associated economic costs, including savings in vehicle operating costs, reduced traffic congestion, travel time savings, and gains in productivity. Qualitative benefits in terms of social, environmental and liveability outcomes were also identified.

## Eastern Sydney and Inner West Regional Action Plan (2012)

The Eastern Sydney and Inner West Regional Action Plan details five key priorities of the NSW Government's vision for this part of Sydney: being well connected with efficient transport; providing more housing options; being globally competitive; being safer and more liveable; and being supportive of vulnerable community members.

The Action Plan identifies the GreenWay active transport corridor as a priority action for delivering more effective and reliable transport to the region. The Action Plan also notes that the bushcare element of the GreenWay project is important to improving the regions biodiversity, and has been able to be implemented alongside the complex construction of the Inner West Light Rail Extension.

## Draft Parramatta Road Urban Transformation Strategy (2015)

The Draft Strategy outlines the longer term vision for a 20 kilometre stretch of Parramatta Road, with the aim of accommodating population growth, supporting employment industries and businesses, and the creation of diverse precincts along the route. The other key part of this vision is delivering better public transport and easier ways to travel, particularly in enhancing the ability of people to walk or cycle. The section of the Parramatta Road corridor around Taverner's Hill is expected to be developed into an urban village, and will connect to the GreenWay corridor.

The Draft Strategy shows the GreenWay route aligning with residential uses, existing and future open space, and with key mixed-use areas and transport stops. The GreenWay is also identified as being important to providing Taverner's Hill with walking and cycling links, access to other modes of transport and public facilities.

## Sydenham to Bankstown Urban Renewal Corridor Strategy (2015)

This Strategy establishes a framework which is intended to guide the delivery of infrastructure in the corridor linking Sydenham and Bankstown for the next 20 years, and support future growth, maintain the character of local areas, and achieve improvements to public space and transport networks.

The GreenWay connects to this Urban Renewal corridor near Dulwich Hill, and is identified as a key element of the integrated transport strategy for the Sydenham to Bankstown corridor in connecting to the regional cycle network.

The GreenWay's extension from Lewisham to Dulwich Hill is seen as important to provide connection to destinations like the University of Sydney, and in providing a more viable means of travelling by bicycle to major employment centres like the CBD.

## Local government plans and strategies

The GreenWay also has the support of the four surrounding councils through which the route travels, and forms part of many of their strategic plans and policies.

- Ashfield LGA's Community Strategic Plan, Ashfield 2023 Our Place Our Future, identifies the continued establishment of the GreenWay corridor as a key focus for Council in terms of improving biodiversity and sustainability in the inner west region.
- The Leichardt 2025+ Community Strategic Plan identifies the GreenWay project as a key strategy for achieving their objective of encouraging public transport use, as part of an integrated transport system.
- Similarly, Marrickville's Community Strategic Plan, Our place, our Vision, identifies the GreenWay as important to its objectives of creating a community which walks, rides and uses public transport, as well as to enhancing biodiversity connectivity and local and regional habitats.
- Under the City of Canterbury's Environmental Management Plan 2012-15, the GreenWay was also a key action towards the LGA's overall strategy of developing and encouraging accessible transport which caters to the needs of all mode users. The GreenWay also works towards the LGA's longer term goals of having transport alternatives, using natural resources responsibly, and generally caring for the natural environment, as outlined in its Community Strategic Plan 2014-2023.


### 2.3 Summary

The character of Sydney is changing, moving from a land-heavy, car reliant manufacturing city to a densely populated city reliant on public and non-motor transport, populated with knowledge and creative industries.

This transition means that infrastructure investment needs to shift its focus from transporting goods and materials from one place to another by motor vehicle to establishing multi-model transport links between densely populated areas. New South Wales, Sydney and Council planning departments have recognised this and are shifting their focus to improving investment in public and active transport. Most regional plans for inner city speak of the aim to increase the safety and attractiveness of non-motorised transport through improving infrastructure for bikes and pedestrians.

The GreenWay aligns with this changing economic geography and with this vision of the future.
It is creating a cycling transport corridor to improve access to Sydney's major cycling routes and employment nodes, while also improving local amenity in a highly attractive and rapidly developing corridor.

## 3 OPTION SPECIFICATION

The following section specifies the GreenWay options which will be assessed in this report.

### 3.1 Base scenario

## What would have happened if the GreenWay initiative didn't occur?

Without the GreenWay initiative, some pre-existing paths would still exist, but they would generally be of fair to poor quality and not attractive to current or potential cyclists. Other social investment, such as investment in arts and bush environments, would not occur.

Table 1 provides a summary of base scenario GreenWay investments.
TABLE 1 BASE SCENARIO - NO GREENWAY INITIATIVE

| Northern Links K, N | Central links F to J | Southern Links A to E |
| :--- | :--- | :--- |
| Moderate-high recreational use, esp <br> Marion St Nth to Iron Cove | Low, mostly local recreational use | Low, mostly local recreational use; |
| Moderate commuter use |  | moderate use in established parks |
| No specific bush care sites | Low commuter use | Low commuter use |
| No community art/culture activities | No specific bush care sites | No specific bush care sites |
| Some Council activities in parks/schools | Some Council activities in parks/schools | Some Council activities in parks/schools |

## Capital costs

Nil

| Ongoing costs |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| 2015 | 2016 | 2017 | 2018 | $\$ 320,000$ |
| $\$ 320,000$ | $\$ 320,000$ | $\$ 320,000$ | $\$ 320,000$ |  |

Source: Personal communication with client, 2016
Naturally, the capital cost of the base scenario is nil - no capital investment is undertaken.

The only element of operating costs is the occasional maintenance of some pre-existing GreenWay infrastructure, such as some shared pathways, and public art such as murals beneath the City West Link Bridge and at the Jack Shanahan Skate Park in Dulwich Hill.

It has been estimated at $\$ 100,000$ per year multiplied by the 3.2 councils affected by the GreenWay project, or $\$ 320,000$ per year. Based on this, the total cost between 2015 and 2019 is $\$ \mathbf{1 . 6}$ million.

### 3.2 Current investment

## What will happen with no further investment other than what has already occurred or been confirmed?

Under this option, the existing shared path and associated projects would remain and be regularly maintained. The path from Iron Cove to Marion Street would exist along with other pre-existing paths, but the remaining 55 per cent of path would not be updated.

Table 2 provides a summary of current scenario GreenWay investments.
TABLE 2 CURRENT INVESTMENT - NO FURTHER DEVELOPMENT

| Northern Links K, N | Central links F to J | Southern Links A to E |
| :--- | :--- | :--- | :--- | (

The capital cost of $\$ 500,000$ for this option is from a Leichhardt Council allocation for 2016/2017 to upgrade Northern Links $K$ and $N$. It is already planned so it has been included in this assessment.

The operating costs of this option include contributions from each of the four affected Councils to a total of $\$ 120,000$ per year to fund the GreenWway Memorandum of Understanding ( MoU ), an agreement on operation and maintenance of the GreenWway; plus a further $\$ 100,000$ in total from the four Councils over five years to operate and support GreenWay projects such as funding for art exhibitions, studies on use of the GreenWay and so forth. Ashfield Council, the lead Council for the GreenWay program, is expected to contribute $\$ 50,000$ in in-kind support per year from 2015-19, while the other councils are expected to contribute $\$ 25,000$ each.

The total operating expenses over the five year period are $\$ 1,725,000$. Capital costs are expected to be $\$ 500,000$; for a total cost over five years of $\mathbf{\$ 2 . 2}$ million.

### 3.3 Partial realisation

## What will happen with the current package of investments?

The current package of investments would involve upgrading a select number of medium and high priority missing links in the GreenWay. These would include northern links at Leichhardt North Feeder and Hawthorne Canal South (K and N); the high priority Central links at Old Canterbury Road Crossing 1, Lewisham West, Longport Street Crossing, Cadigal Reserve and Parramatta Road Crossing (F to J); and the medium priority links at Cooks River 1 and Johnson Park (B1 and E); plus some minor landscaping improvements along the entire GreenWay.

This option aims to identify the highest priority links and the minimum number of links necessary to allow a shared path to run the entire length from Cooks River to Iron Cove, and joins some regional cycle routes to the GreenWay. Table 3 provides a summary of the partial realisation scenario.

TABLE 3 PARTIAL REALISATION - CURRENT PACKAGE OF INVESTMENTS

| Northern Links K, N | Central links F to J |  |  | Southern Links A to E |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Moderate-high recreational use, | Moderate recreational use |  |  | Moderate mostly local recreational use; moderate use in established parks |  |
| Moderate commuter use | Moderate commuter use |  |  | Low commuter use |  |
| Promotion of active transport and planning links | Promotion of active transport and planning links |  |  | Promotion of active transport and planning links |  |
| Maintenance of 10 existing bush care sites +6 compensation sites | Maintenance of 10 existing bush care sites +6 compensation sites |  |  | Maintenance of 10 existing bush care sites +6 compensation sites |  |
| Schools program for 5-10 schools | Schools program for 5-10 schools |  |  | Schools program for 5-10 schools |  |
| Public art (1 commission pa), GreenWay Arts Exhibition and other cultural activities | y Public art (1 commission pa), GreenWay Arts Exhibition and other cultural activities |  |  | Public art (1 commission pa), GreenWay Arts Exhibition and other cultural activities |  |
| Placemaking and place management around GreenWay Hubs | Placemaking and place management around GreenWay Hubs |  |  | Placemaking and place management around GreenWay Hubs |  |
| Capital costs |  |  |  |  |  |
| Northern Links K, N | \$500,000 |  |  |  |  |
| Central Links F to J | \$11,620,000 |  |  |  |  |
| Southern Links B1 and E | \$650,000 |  |  |  |  |
| Ongoing costs | 2015 | 2016 | 2017 | 2018 | 2019 |
| GreenWay MoU \$ | \$120,000 | \$120,000 | \$120,000 | \$120,000 | \$120,000 |
| GreenWay project support \$ | \$100,000 | \$100,000 | \$100,000 | \$100,000 | \$100,000 |
| In-kind (excl. Ashfield) | \$75,000 | \$75,000 | \$75,000 | \$75,000 | \$75,000 |
| In-kind support (Ashfield) | \$50,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 |

The bulk of the capital costs from the partial realisation option will come from the central links F to J , which is expected to cost $\$ 11.6$ million. This funding is expected to come from Marrickville and Ashfield Councils, with some support from Urban Growth and RMS in the New South Wales government. The remainder of the capital costs is expected to come from Leichhardt Council allocating $\$ 500,000$ for Northern Links L and K, and \$650,000 from Marrickville Council for the completion of Links B1 and E, including some minor landscaping.

Operating costs of this option are expected to be the same as those experienced under the Current Investment option.

The total capital costs of this option are expected to be $\$ 12.77$ million. Total operating expenses over five years are expected to be $\$ 1.725$ million, for a total cost of $\$ \mathbf{1 4 . 5}$ million.

### 3.4 Full realisation

## What will happen once the corridor is fully realised?

This option completes all of the missing links identified in Figure 2, allowing for even novice cyclists to easily ride from Cooks River to Iron Cove safely. It also completes a number of links to other regional cycle routes in the area, for example the Longport Street Feeder and a number of southern feeder routes, to increase the number of people who can safely access the path. This option also provides more funding for placemaking. Two commissions for public art will be allowed per year instead of one, as with the partial realisation and current investment options. Investment in placemaking and place management will occur along 50 per cent of the GreenWay corridor, rather than selected hubs. Four new bush sites will be established. Table 4 provides a summary of full realisation scenario GreenWay investments.

TABLE 4 FULL REALISATION - ALL LINKS COMPLETED

| Northern Links K, N | Central links F to J |  |  | Southern Links A to E |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Moderate-high recreational use, esp Marion St Nth to Iron Cove | Moderate-high, mostly local recreational use |  |  | Moderate-high mostly local recreational use; moderate use in established parks |  |
| Moderate-high commuter use | Moderate commuter use |  |  | Moderate commuter use |  |
| Promotion of active transport and planning links | Promotion of active transport and planning links |  |  | Promotion of active transport and planning links |  |
| Maintenance of 10 existing bush care sites +6 compensation sites +4 new bush sites | Maintenance of 10 existing bush care sites +6 compensation sites +4 new bush sites |  |  | Maintenance of 10 existing bush care sites +6 compensation sites +4 new bush sites |  |
| Schools program for 5-10 schools | Schools program for 5-10 schools |  |  | Schools program for 5-10 schools |  |
| Public art (2 commission pa), GreenWay Arts Exhibition and other cultural activities | Public art ( 2 commission pa), GreenWay Arts Exhibition and other cultural activities |  |  | Public art (2 commission pa), GreenWay Arts Exhibition and other cultural activities |  |
| Placemaking and place management along 50\% of GreenWay | Placemaking and place management along 50\% of GreenWay |  |  | Placemaking and place management along 50\% of GreenWay |  |
| Capital costs |  |  |  |  |  |
| Total capital costs | \$15,790,000 |  |  |  |  |
| Ongoing costs | 2015 | 2016 | 2017 | 2018 | 2019 |
| GreenWay MoU \$ | \$240,000 | \$240,000 | \$240,000 | \$240,000 | \$240,000 |
| GreenWay project support \$ | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 |
| In-kind (excl. Ashfield) \$ | \$150,000 | \$150,000 | \$150,000 | \$150,000 | \$150,000 |
| In-kind support (Ashfield) \$ | \$100,000 | \$100,000 | \$100,000 | \$100,000 | \$100,000 |

The total capital cost of constructing all of the missing links, plus providing further investment for placemaking and landscaping, is expected to come to $\$ 15.79$ million. The additional activities surrounding the GreenWay are expected to double the ongoing costs of the project, to a total of \$3.45 million over five years. The total cost of this option is expected to be $\mathbf{\$ 1 9 . 4}$ million.

## 4 <br> CBA FRAMEWORK AND ASSESSMENT CRITERIA

There are many expected costs and benefits associated with the GreenWay project. As well as the construction and operation costs, a number of benefits are expected.

Some of these potential benefits have been quantified in previous analyses, to some extent. Others are known to be quantifiable, based on previous research. Some benefits, while real, cannot be easily quantified using existing data and research.

### 4.1 Overview of GreenWay impacts

The most direct and obvious benefits arising from the GreenWay project relate to the increase in ease of cycling from Cooks River to Iron Cove (or vice versa) or any shorter trips along the way. This is reflected in a number of different benefits of the project, including reduced transport times for people cycling for transport and encouraging mode shift to cycling as cycling becomes relatively easier compared to other transport modes such as driving. Ultimately, a goal of the project is to encourage more cycling through increased convenience.

Increasing cycling in the area is expected to have a number of flow-on benefits.

- First, people who are already cycling along these routes may experience reduced accident risk as the paths are safer and more separated from cars.
- Second, people, including children, who are enticed to cycling or cycling more as a result of the project are likely to experience health and wellbeing benefits from greater physical activity.
- Third, additional transport infrastructure in an area can increase the attractiveness of living in a place, potentially driving up land values in an area. Cycling infrastructure may be no different to this, but there is limited research on the subject.
- Finally, it can promote business and other development in the area. Cycling infrastructure is more likely to drive business development than roads, as cyclists tend to travel more slowly and notice their surroundings in detail, and find it easier to stop along the way.

There are a number of benefits which may be delivered by the GreenWay's contribution to reducing traffic congestion. Encouraging more people to switch to cycling and active modes of travel instead of cars has benefits in terms of:

- Reducing parking pressures on local streets, transport hubs, and streets close to shops
- Reducing the need for parking to be included in new developments on the GreenWay corridor area
- Reducing the number of cars used to transport children to and from schools on a daily basis
- Reducing wear and tear on roads, and
- Reductions for vehicle owners in private car costs, such as for petrol and maintenance.

The investments proposed as part of the GreenWay project are also likely to deliver other types of benefits, particularly environmental and social benefits. Increasing bush areas can increase habitats for native animals, provide a more continuous tree canopy which facilitates bird migrations and offers protection from predators, and improve the GreenWay's function as a bio-corridor. Increased vegetation along cycling and walking paths can also provide a cooler environment, helping to reduce the urban heat island effect and generate flow-on benefits such as in reducing reliance on artificial cooling, and also make walking and cycling a more attractive travel option even on warmer days.

Promoting investment in public art and placemaking can provide social benefits in the form of a sense of place or community, with the GreenWay offering space for investment in public art forms, as well as for cultural activities to occur, such as the GreenWay Art Prize. The strategic location of the corridor means that it can also cater to emerging creative and cultural industries are located in the suburbs along the route, and can provide a focal point for these industries to be based around, such as art galleries.

The GreenWay is also likely to act as an attractor for casual users, particularly on weekends, with many people likely to use route to visit parks and venues in the vicinity. This in turn has the potential to produce financial benefits for local businesses and councils, as more people visit the area and spend money on things like coffee, which can then be reinvested in improved facilities and spaces for the public in the GreenWay corridor.

The GreenWay is also close to a number of schools, and could also be used as an important educational resource in teaching children about their local environment and the importance of active living. A study is already underway, aiming to encourage more children and their parents to travel to school using the GreenWay corridor and walking or cycling, and thereby reducing the number who travel by car. This too has benefits, in healthier and more active children, but also in reducing traffic at peak times. The GreenWay provides a safe and attractive alternative for local children to get to school, and improving the lighting and visibility along the route will also provide social benefit in the form of reducing the risk of accidents or crime.

## Evaluation framework

While there are a number of benefits that are likely to be generated by continued and improved investment in the GreenWay corridor, it remains difficult to accurately quantify and value these in monetary terms. Figure 5 shows a list of assessment criteria considered for use in the multi-criteria assessment, and a potential metric for its use in a cost benefit analysis.

FIGURE 5 ASSESSMENT CRITERIA AND MEASURE/METRIC

| Criteria | What does it cover? | Measure/metric |
| :--- | :--- | :--- |
| Costs | Initial establishment of GreenWay links | Dollars |
| Capital | Estimated costs of maintaining the GreenWay and <br> operating associated programs | Dollars |
| Ongoing | Any travel times savings from improved linkages | Minutes saved based on surveys |
| Benefits | Mode share shifts to more sustainable modes/more <br> resilient network | Analysis of existing literature to determine the <br> likelihood of shifts to more sustainable modes of <br> transport from improvements to a cycle route. |
| Direct transport | New development opportunities - do different options <br> unlock/use land that could otherwise be developed on? |  |
| Kiosk/small pop-up employment |  |  |

### 4.2 Criteria Assessment

This section goes into more detail on the criteria used in the MCA. It explains some of the source data used in more detail, and presents and justifies their rankings in the multi-criteria analysis. For each criteria, the four options are rated on a score of 0 to 5 , where 0 is the least preferable and 5 is the most preferable.

## GreenWay Costs

## Capital Costs

The capital costs of the project increases as the GreenWay Corridor is realised to a greater extent. In particular, the lowest costs ( $\$ 0$ ) are experienced in the base scenario, whilst, the highest costs $(\$ 15,970,000)$ occur in the full realisation scenario. Table 5below summarises these capital costs.

TABLE 5 RANKING CAPITAL COSTS

| Metric description | Capital costs | McA Criteria Ranking |
| :--- | :---: | :---: |
| Base | $\$ 0$ | 5 |
| Current | $\$ 500,000$ | 4 |
| Partial | $\$ 12,750,000$ | 2 |
| Full | $\$ 15,970,000$ | 1 |

## Ongoing costs

The total ongoing costs of the project from 2014 to 2019 increases as more of the GreenWay Corridor is realised, as shown in Table 6. The lowest ongoing cost over the five year period occurs with the base scenario $(\$ 1,600,000)$, whilst, the highest ongoing cost occurs with the full realisation scenario $(\$ 3,450,000)$. The table below summarises the total ongoing costs of each scenario over the five year period.

TABLE 6 RANKING ONGOING COSTS

| Metric description | Total ongoing costs | MCA Criteria Ranking |
| :--- | :---: | :---: |
| Base | $\$ 1,600,000$ | 5 |
| Current | $\$ 1,725,000$ | 4 |
| Partial | $\$ 1,725,000$ | 4 |
| Full | $\$ 3,450,000$ | 2 |

In a full cost-benefit analysis, these ongoing costs would be projected forward for 15-30 years or the expected life of the GreenWay, along with the associated benefits. For the purposes of this MCA, it will be sufficient to look at the benefits over the short term.

## GreenWay Benefits

## Direct transport

The benefit of upgrading the links within the GreenWay will accrue in travel time savings for commuters along the GreenWay.

- The base case scenario will not result in travel time savings.
- The current scenario will result in fairly trivial travel time savings as the upgrade will not involve completing any of the links outlined as priorities. Travel time savings may occur due to increased bush care maintenance along pathways.
- The partial upgrade involving the completion of the Northern, Central and the majority of the Southern Links will result in travel time savings for commuters hoping to travel across the GreenWay corridor.
- The full realisation of all the identified links - priority and others - will result in the maximum travel time savings as commuters should be able to access the GreenWay from the beginning to the end.

Travel time savings will accrue to current users as well as those shifting modes from other forms of transport to either cycling or walking along the GreenWay. However, Transport for NSW suggests for cyclists and people walking, the travel time savings are likely to be minimal and rather the more important benefits are linked to increased health.

TABLE 7. RANKING TRAVEL TIME SAVING OPTIONS

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Direct transport benefits | 1 | 1 | 4 | 5 |

## Transport resilience

Constructing missing links in the corridor will provide greater accessibility for cyclist within the corridor and also to the CBD. Links which are in close proximity to schools, such as A, C, D, E, G, H, H2, I, J, J2, K, are expected to have particularly large impacts on the schools accessibility via cycling. This increase in accessibility will generate a strong incentive for both commuters and school children to shift away from private and public transport towards cycling. Key benefits of this shift include reduced traffic congestion, improved health of commuters and school children as well as a more sustainable transport network.

The GreenWay corridor links populations from the Leichhardt (in the north) and Marrickville (in the South) LGAs. The Leichhardt LGA has access to the CBD via an existing cycleway, however, without the construction of the missing links the Marrickville LGA does not. As shown in Figure 6, there is a comparable difference in household mode shares of walking and cycling (see the walk only and other modes categories). It is expected that constructing the missing links will reduce this difference.

FIGURE 6: MODE SHARE COMPARISON


Source: BTS (2012/13)
A recent study by Macmillan et al. (2014) simulated the effects of various cycle path policies for Auckland, New Zealand. The key findings showed that a greater increase in people choosing to cycle over other modes of transport occurred when cycle paths were physically separated from the roads rather than shared. Currently, there are already some shared bike lanes on roads near sections of the corridor. However, these results suggest that providing a physically separated cycle path, via the construction of missing links, will have additional and significant positive effect on people taking up cycling as a mode of transport. Constructing high priority links are likely to have the greatest effect, thus we can rank the benefits as per Table 8.

A potential case study could be the Greenway Schools Active Travel Project, a program to encourage children at schools near the GreenWay to start walking, cycling or scootering to school instead of being driven by parents. Changes in transport modes of schoolchildren in the area could be studied as the GreenWay project progresses.

TABLE 8. MODE SHIFTING AND TRANSPORT RESILIENCE

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Mode Shifting | 1 | 2 | 4 | 5 |

The partial realisation scenario only leaves out some low and medium priority links, while the current investment scenario has significant differences between the partial and full realisation scenario. For this reason we have ranked the partial and full scenarios much higher than the current scenario, with less difference between mode shift between partial and full realisation options.

## Renewal stimulus

## New business development opportunities

The GreenWay Corridor is likely to attract a significant number of recreational visitors on both weekdays and weekends. This increase in visitation has the potential to offer new development opportunities for businesses such as cafes or markets stalls. Ease of transport by bicycle may attract knowledge businesses to the area. These new opportunities if successful will generate employment and benefit the local councils via tax revenues.

A recent report by Super Sunday (2016) collected data about current usage levels at various links of the corridor on a Sunday. On average the busiest hour was between 10am and 11am across all surveyed links. Table 9summarises this information.

TABLE 9 CURRENT USAGE

| Time | Current usage (trips) |
| :--- | :---: |
| $9 a m-10 a m$ | 203 |
| $10 a m-11 \mathrm{am}$ | 208 |
| $11 \mathrm{am}-12 \mathrm{pm}$ | 199 |
| $12 \mathrm{pm}-1 \mathrm{pm}$ | 147 |

Source: Super Sunday (2016)
By constructing the additional missing links, in particular the high priority links, these usage figures are expected to increase. Thus, the potential for development and businesses opportunities will also follow due to a larger customer base. This type of effect can be seen in popular cycling events such as the Spring Cycle in Sydney which attracts a large number of participants and an array of market stalls at the finish site.

To quantify the new business development opportunities we will assume that the expected benefit generated by each scenario is proportional to the usage levels.

## Increased (non-business) development opportunities

Construction of the GreenWay corridor, beyond the base scenario, will present further opportunities for development. Some potential land developments include additional facilities for recreational and community activities or events. Currently there are only minimal developments within the corridor, and hence it appears that these development opportunities are not present.

It is expected that the full realisation scenario will offer the greatest increase in development opportunities. This can be attributed to a reduction in costs due to the land already being developed through the construction of the corridor and increased visitation numbers. Sscenarios with less construction are expected to provide proportionately less development opportunities. With this reasoning we have ranked the expected benefits stemming from non-business development in each scenario in Table 10. As previously mentioned, the partial and full realisation scenarios involve completing all high priority links, and so we will assume that the benefits are also similar.

## Change in development opportunities

The different scenarios considered in this analysis will present different types of development opportunities for the corridor. These development opportunities are heavily dependent upon which links are completed and which areas are connected via the shared path.

For example, the full realisation scenario will connect populations from all sections of the corridor to the CBD via a cycle path. This scenario will offer the surrounding population greater access to jobs, increased diversity of recreational users and a demand for bike friendly amenities. The scenarios with missing links are less likely to experience these changes or, at least, to a lesser extent. Furthermore, increases in people cycling to work may reduce the demand for facilities such as car parks.

The benefits addressed above are difficult to quantify and are expected to be of only a small magnitude.

The benefits of renewal stimulus from the business development, non-business development and changes in development opportunities are shown in Table 10

TABLE 10 RENEWAL STIMULUS: MCA RANKING

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Expected benefit from businesses <br> Expected benefit from non- <br> business development | 1 | 3 | 5 | 5 |
| Expected benefit changes in <br> opportunities | 1 | 3 | 5 | 5 |
| Total renewal stimulus | 1 | 1 | 2 | 2 |

## Economic Future

## Uplift in land values

Anecdotal evidence from real estate agents suggests that cycle paths in Sydney have previously had a positive effect on surrounding property prices. This suggestion has been confirmed in the United States, The University of Delaware (2006) showed that on average properties within 50 m of a bike path could be expected to increase property values by at least US $\$ 8,800$. In light of this, it is reasonable to infer that a greater uplift in land values will be experienced from investment options which construct more missing links.

Land value uplifts could be measured by accessing unimproved land values throughout the GreenWay from the Valuer General over time. SGS could then develop a hedonic price model of land values in the area to determine the extent to which land values are affected by the proximity to quality cycling infrastructure. Other variables that would need to be controlled for include proximity to other transport infrastructure (trains and light rail); quality of parks close to each property, shops and schools nearby, distance from CBD and so forth. This analysis would allow us to quantify the land value uplift as a result of GreenWay developments.

If sufficient data are available SGS to estimate land value uplift, any future cost-benefit analysis must be careful not to double-count the impact of other social, economic or transport impacts. Land value uplift is caused by increased demand for land in an area, which may be due to people placing value on locations with reduced transport times, the improvements in health expected from walking or cycling more, the amenity of tree cover or personal safety.

## Agglomeration benefits

As noted in Section 2, agglomeration economies give rise to greater efficiency through economies of scale, shared production and consumption inputs, and knowledge sharing between firms through large numbers being located in the same place. Transport projects such as dedicated bike lanes can provide agglomeration benefits through reducing the time it takes for businesses to access other businesses, for customers to access businesses, and for ideas sharing. However, agglomeration benefits can be very difficult to measure.

In the case of this project, it is unclear whether a new cycle path will have significant agglomeration benefits as it runs adjacent to a light rail line - people along this route are already brought closer together by this public transport link. However, the development of green infrastructure within the corridor is likely to make some light rail stops more appealing via improved lighting and safer access for commuters.

It is likely that the GreenWay investment which is the subject of this MCA may also improve the agglomeration benefits experienced by the light rail line. The issue of underdeveloped greenways detracting from the full potential benefits of a green corridor due to safety issues have been identified by researchers (see Luymes et al (1995)). To unlock the full range of possible benefits stemming from the GreenWay corridor appropriate investment and renewal should be undertaken.

Based on this reasoning we can rank the land value uplift and agglomeration benefits stemming for each investment option, as shown in Table 11.

TABLE 11 ECONOMIC FUTURES STIMULUS: MCA RANKING

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Land value uplift | 0 | 1 | 3 | 4 |
| Agglomeration benefits | 0 | 1 | 3 | 4 |
| Total economic futures | 0 | 1 | 3 | 4 |

## Social benefits

## Safety

Currently, sections of the GreenWay are disconnected as there are no safe connections over large roads such as Old Canterbury Road and Parramatta Road, which are difficult for pedestrians and cyclists to cross. This is likely the largest deterrent for commuters to riding/walking the full length of the GreenWay, and thus accessibility to both the Bay Run cycle/walk path and the Cooks River cycle/walk path. Safer connections will result in cost savings in reduced accidents.

The base case and current investment scenario are likely to result in the minimal increases to safety as there will be no major upgrades to creating safer passages for travel. The partial and full completion scenarios will result in better safety along the GreenWay path, in particular the full realisation option as the upgrades are comprehensive across the full length of the trail.

Transport for NSW outlines how safety benefits can be captured using user willingness to pay measurements of accident prevention.

## Health

The benefits of upgrading the linkages throughout the GreenWay will likely result in health benefits for some commuters using the path. This is typically measured as additional distance walked/cycled. For those that already use parts of the GreenWay, they may consider extending their 'trip' given easier access. New users may be enticed to use the GreenWay due to better facilities.

The base case and current investment opportunities are unlikely to result in large health benefits as commuters are unlikely to increase their distance cycled or walked due the missing links along the GreenWay. The partial and full potential are more likely to result in increased number of commuters along the GreenWay and therefore increased health benefits.

Transport for NSW estimates health benefits to fall somewhere between $\$ 0.064-\$ 2.15$ depending on whether cycling or walking was used.

## Sense of community/place

Improvements to the green infrastructure around Leichhardt, Ashfield, Marrickville and Canterbury LGAs may result in an enhanced sense of community for residents in these areas. Typically, these benefits are often anecdotal and difficult to quantify in dollar terms. Morrison and Dowell (2015) find that there is significant correlation between a place of identity and an increased willingness to pay to retain cultural assets. This study used a contingent valuation method to extract users' willingness to pay. Whilst the findings are significant, a benefit transfer technique to apply the findings to this study is not appropriate given the study focused on regional economies with much larger cultural assets. Scaling the findings for these factors is likely to produce inaccurate measures.

Table 12 presents a rank of these various benefits for each GreenWay option.
TABLE 12 SOCIAL BENEFITS: MCA RANKING

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Safety | 1 | 1 | 3 | 5 |
| Health | 0 | 1 | 4 | 5 |
| Sense of community | NA | NA | NA | NA |
| Total social benefits | 0.5 | 1 | 3.5 | 5 |

## Environmental benefits

## Reduced emissions

As established in the Transport subsection above, the upgrade of the GreenWay will encourage travel mode shifts to non-motorised vehicles. This will result in some reduction in greenhouse gas emissions.

However, given the mode shift is minimal - even at full realisation - the benefits of those reducing their GHG consumption is minimal.

## Green canopies

As cities become denser, green space often gives way to new developments in the form of roads, parking and new buildings. These concrete, brick, tile and bitumen structures absorb light from the sun which turns into heat, increasing temperatures and causing urban heat areas. At best, this results in higher cooling bills and fewer people outside on warm days; at worst, people can die from heat related illnesses. Urban heat islands can be mitigated by planting vegetation in urban areas: sunlight hitting plants is converted to chemical energy for the plants' needs, transpiration by trees provides an evaporative cooling effect and shade from trees reduces the amount of sunlight hitting hard areas. This can cool the apparent air temperature by as much as 7-15 degrees. Acting Minister for Cities, Greg Hunt, announced plans to increase urban canopies by increasing city tree plantings and green roof coverings, to reduce extreme heat stress in cities, particularly away from the coast.

The additional bush care sites proposed under the current, partial and full development options propose improvements in vegetation, which can reduce the urban heat island effect in areas near the GreenWay. This has the potential to reduce cooling costs in nearby buildings, and potentially increase usage of shaded areas such as the cycleway, parks and businesses such as cafes or markets. As well as causing cooler, more pleasant microclimates, it reduces the risk of sunburn. The full realisation option provides the greatest improvement to green canopies due to its development of new bush sites.

## Native habitat

The long nosed bandicoot is one of the identified endangered native fauna with a presence within the GreenWay corridor. Currently, a six month study is being conducted by the University of Sydney to collect information about the colony of long nosed bandicoots living around the GreenWay corridor. As there is little information about their habitats and habits, it is difficult to quantify whether or not improvements of the pathways and connectivity of the entire GreenWay corridor will necessarily result in increased wellbeing of the colony. For this reason, benefits are assumed to be modest. The current and partial options have the same improvements to habitat, while the full realisation option establishes additional bush sites.

TABLE 13 ENVIRONMENTAL BENEFITS: MCA RANKING

| Benefit | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Reduced Emissions | 0 | 0 | 1 | 1 |
| Green canopies | 0 | 2 | 2 | 4 |
| Habitat for endangered species | 0 | 1 | 1 | 2 |
| Total environmental benefits | 0 | 0.5 | 1 | 1.5 |

## Synergise with other investment

This study has largely focused on the GreenWay initiative in isolation. However, the GreenWay runs parallel to a newly established light rail corridor. This major transport investment has provided benefits to the corridor, significantly improving its connectivity and catalysing investment and activity around its stops.

Full realisation of the GreenWay initiative can improve the amenity around this transport investment and provide a 'last-mile' connection through safe and welcoming pedestrian and cycling links.

This can effectively unlock benefits along the corridor which the GreenWay alone or the Light Rail alone could not have achieved.

## 5 MULTI CRITERIA ASESSMENT

### 5.1 Metric standardised scores

The benefits and costs in the criteria described in the previous section were rated on a scale of 1 to 5 , where 1 was least preferable and 5 was most preferable. This approach is not intended to consist of a detailed analysis of all the options, but to give a high level assessment of relative outcomes. It also identifies the scenarios that are most worthy of further detailed analysis.

TABLE 14 WEIGHTINGS OF CRITERIA

| Griteria | Base | Current | Partial | Full |
| :--- | :---: | :---: | :---: | :---: |
| Capital costs | 5.0 | 4.0 | 2.0 | 1.0 |
| Ongoing costs | 5.0 | 4.0 | 4.0 | 2.0 |
| Transport time savings | 1.0 | 1.0 | 4.0 | 5.0 |
| Transport future | 1.0 | 2.0 | 4.0 | 5.0 |
| Renewal stimulus | 1.0 | 2.3 | 3.7 | 4.0 |
| Economic future | 0.0 | 1.0 | 3.0 | 4.0 |
| Social | 0.5 | 1.0 | 3.5 | 5.0 |
| Environmental | 0.0 | 1.0 | 1.3 | 2.3 |

### 5.2 Metric weightings

Decision makers can often have different priorities when making a decision on a particular infrastructure project. The weighting process effectively acts as a sensitivity test by providing different weights to different criteria. The weightings used for this MCA were:

- Uniform weighting: the same weighting across each ten categories of benefit ( $12.5 \%$ each)
- Economic weighting: Heavier weighting on the costs of construction and maintenance, and economic benefits of the project.
- Social weighting: Heavier weighting on social and environmental benefits
- Transport weighting: Heavier weighting on transport time savings and transport futures

TABLE 15 WEIGHTINGS OF CRITERIA

| Criteria | Uniform | Economic | Social | Transport |
| :--- | :---: | :---: | :---: | :---: |
| Capital costs | $12.5 \%$ | $25 \%$ | $10 \%$ | $10 \%$ |
| Ongoing costs | $12.5 \%$ | $25 \%$ | $10 \%$ | $10 \%$ |
| Transport time savings | $12.5 \%$ | $10 \%$ | $10 \%$ | $25 \%$ |
| Transport future | $12.5 \%$ | $10 \%$ | $10 \%$ | $25 \%$ |
| Renewal stimulus | $12.5 \%$ | $10 \%$ | $5 \%$ | $8 \%$ |
| Economic future | $12.5 \%$ | $10 \%$ | $5 \%$ | $8 \%$ |
| Social | $12.5 \%$ | $5 \%$ | $25 \%$ | $8 \%$ |
| Environmental | $12.5 \%$ | $5 \%$ | $25 \%$ | $8 \%$ |
|  | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |

### 5.3 Results of multi criteria assessment

Figure 7 shows the results of the multi-criteria assessment under four possible weightings. With the exception of the Economic weighting, under each weighting the full realisation option comes out as the optimal scenario, scoring 0.35 higher than the partial option under uniform weighting, 0.59 higher than the partial option under social weighting and 0.49 higher than the partial option under transport weighting.

Under Economic weighting, in which higher priority is given to capital and ongoing costs and economic benefits, the partial realisation option comes out on top, followed by the base scenario. This is because the partial realisation scenario is able to deliver similar transport time savings, mode shift and economic benefits for a lower cost compared to the full realisation option, but not delivering the same environmental or social benefits.

FIGURE 7 MCA RESULTS


[^15]
## 6 NEXT STEPS

The MCA from the previous chapters has demonstrated that full realisation of the GreenWay plan is the best option to meet the criteria of providing economic development, ease of sustainable transport, social and environmental benefits at a minimal cost.

The purpose of this MCA was to consider some of the costs and benefits of the four options and consider their relative magnitudes. This is not intended as a final piece of analysis, rather, it is a preliminary piece of research to form the framework of a fully quantified cost-benefit analysis of further developments in the GreenWay.

The following section details what next steps are required to expand framework into a robust evaluation.

### 6.1 Clarify project parameters

To conduct a robust cost-benefit analysis, the boundaries of the project must be clearly identified. First, costs and benefits must be calculated over a particular timeframe. An infrastructure project such as this may calculate benefits anywhere from 20-50 years into the future. The timeframe for analysis must be chosen based on the expected life of the maintenance and program funding, the expected life of the cycleway and so forth.

SGS will also need to work with GreenWay to clearly identify which outputs are part of the GreenWay project and which are not. The analysis must make a clear distinction between the outputs that would not have occurred without the GreenWay investments, and the outputs that would have occurred anyway. In particular, benefits of land value uplift and business development as a result of the GreenWay must be teased out from the benefits of the light rail, for example.

It is also possible that other programs and investments have been occurring along this corridor at the same time - it is important to identify these so that their benefits and costs can be separated from those caused by the GreenWay.

### 6.2 Data gathering

The first stage of a cost-benefit analysis would involve gathering data on the measures/metrics identified in Figure 5. For each of these data values, SGS will collect the data available and evaluate the most suitable way of monetising benefits that is applicable to the Greenway project.

The major areas we would be seeking data from external sources, with GreenWay's assistance, will be:

- Valuer-general data on unimproved land values, to estimate uplift in land values from the GreenWay (separating these from the uplift from the light rail)
- Any recent usage statistics on different sections of the GreenWay route, to identify the number of people achieving a range of benefits
- Outcomes of investments in GreenWay programs such as the GreenWay Schools Active Travel Project and art exhibitions, to identify the effectiveness of these programs

There would also be a need to seek publicly available data from a range of sources to assist in quantifying benefits, or to better understand the environment in which the GreenWay is operating.

These will include:

- Census journey to work data, to gauge the prevalence of cycling for transport at the last Census
- Population forecasts from id for the affected Council areas
- Data on businesses operating in the GreenWay vicinity, particularly those that have moved to the area or started up within the last five years
- Data on industries, jobs and effective job density in the Greenway area.

Finally, SGS will investigate previous research programs that have identified a method of quantifying benefits similar to those expected from the GreenWay, such as parkland visitation, health benefits of walking and cycling and reductions in power costs from reducing urban heat islands, to ensure the correct estimation method is used when estimating Greenway methods.

### 6.3 Cost benefit analysis

The next stage would involve constructing the cost benefit analysis. This will involve drawing up an expected timeline of construction costs, maintenance costs and expected benefits for each of the four options considered over the defined timeframe.

Alternatively, SGS could select two of the most promising looking options based on this MCA and prepare a cost benefit analysis for these options alone. Where possible, this cost benefit analysis will be designed to comply with the NSW Government Guidelines for Economic Appraisal.

The outcome of the cost benefit analysis will be an estimate of the net present value, benefit cost ratio and internal rate of return for the options considered.

### 6.4 Reporting

The final output of this project would be a report containing the research and analysis in this report, plus an explanation of the cost benefit analysis process described in Sections 6.1-6.3. If some costs or benefits are not quantifiable, SGS will include a qualitative discussion on how the GreenWay program causes the cost or benefit, and the likely significance of the benefit. The main finding of the report will be a recommendation of a preferred option, based on the outcome of the cost benefit analysis.

## 7 CONCLUSION


#### Abstract

The character of Sydney is changing, moving from a land-heavy, car reliant manufacturing city to a densely populated city reliant on public and non-motor transport, populated with knowledge and creative industries.


The GreenWay project aligns with this changing economic geography and with this vision of the future. It is creating a cycling transport corridor to improve access to Sydney's major cycling routes and employment nodes, while also improving local amenity in a highly attractive and rapidly developing corridor. It seeks to increase the safety and accessibility of non-motorised transport through improving infrastructure for bikes and pedestrians.

The GreenWay project is also providing a high amenity corridor to support and attract housing density and knowledge/creative jobs. Improving and fixing the GreenWay area, including the bike path, will make these development opportunities more appealing and take the pressure off the other existing infrastructure.

Four options were tested for the MCA: Base, Current Investment, Partial Realisation and Full Realisation. Each option was assessed for its expected costs benefits and ranked on a scale of 0 to 5 on a scale of least preferable to most preferable. The costs included the expected costs of construction and ongoing costs over five years.

The benefits considered included:

- Transport time savings as commuters will be able to access the GreenWay from beginning to end.
- Transport futures will evolve, shifting transport modes from motorised to non-motorised transport. This will generate significant benefits in the way of reduced traffic congestion, improved health of commuters and school children as well as a more sustainable transport network.
- Renewal stimulus will offer the potential new development opportunities for businesses such as cafes or markets stalls. This could generate employment and benefits via tax revenues.
- Renewal stimulus for non-business developments, providing an appealing high amenity corridor to attract and support housing density
- Social benefits including improvements in health and fitness, increased safety for cyclists and other corridor users and a sense of community in the area. Bicycle path connections will improve safety while also improving health with more time spent utilising the path either walking or cycling.
- Environmental benefits of improved native habitats, cooling green canopies and reduced emissions will also be accrued.

The MCA tested four different weightings of the benefits listed, Uniform, Economic, Social and Transport, with Uniform giving equal weighting to each class of benefit and the other weightings prioritising specific benefit types. Under the Uniform, Social and Transport weightings, the full realisation option was ranked as most preferable. Under Economic weighting the partial realisation option is the more effective as it is able to deliver some benefits of transport time saving and mode shift for lower cost. However, this option would not deliver the same environmental, transport or social benefits and the full realisation of the GreenWay.

The GreenWay's connections to other parts of Sydney's cycle networks are becoming increasingly important. The project will unlock a multitude of benefits for development and renewal in the area that will have flow-on impacts for Sydney. With both the new light rail line in the area and renewal of the Greenay combined, there would be enormous synergistic benefits from the investment.

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13 October 2017

Dear Sir/Madam

## Comments on M4/M5 Link EIS - Application no: SSI 7485

Thank you for the opportunity to comment on the above EIS. The majority of the comments in this submission relate to the proposed Rozelle Rail Yards Recreation Area and adjacent residential and foreshore areas.

## 1. Background re: the GreenWay

The GreenWay is a 5.8 km sustainable transport and urban environmental corridor which extends from the Cooks River at Dulwich Hill to the Parramatta River at Iron Cove. The GreenWay vision was first developed by the Inner West community in the late 1990's and is being implemented by the Inner West Council and City of Canterbury Bankstown in collaboration with various state agencies, land owners and community groups. The GreenWay Program has 5 main elements:-
i. active travel - completion of the GreenWay Missing Links (shared use path)
ii.place making and place management - with a particular focus on the 9 new Inner West Light Rail stops
iii. urban bush care - management of 16 community bush care sites
iv.arts and culture - identifying and celebrating the natural, historical and cultural qualities of the GreenWay corridor through art and community culture
v.sustainability education - using the GreenWay to teach school and university students about urban sustainability in Sydney's Inner West.

Please see attached GreenWay Program DL (attach. A) and the GreenWay Missing Links Update - October 2016 (attach. B) for further information about the GreenWay Program and more specifically, the GreenWay Missing Links design and construction project.

The GreenWay has been identified by the Greater Sydney Commission as the no. 1 priority Green Grid project in the Draft Central Sydney District Plan (2016), as referenced in Appendix N of the M4/M5 Link EIS Report. There is considerable potential for the existing GreenWay to be extended to become the Cooks River to Bays Precinct GreenWay, via an extension to the existing GreenWay from Iron Cove, along the Inner West Light Rail corridor via the Rozelle Rail Yards Link and proposed new Park to Anzac Bridge and the CBD, as outlined in the M4/M5 EIS Report - Active Transport Strategy section. See more detailed comments below.

## 2. Comments on M4/M5 Link EIS - Active Transport Strategy

The EIS outlines an integrated approach to the provision of additional active travel links between the Rozelle Rail Yards Recreation Area and adjacent suburbs and existing or potential active travel routes. This includes the proposed Rozelle Rail Yards Link to the existing Cooks River to Iron Cove GreenWay, as well as additional links along Whites Creek,
across a new Rozelle land bridge to Bicentennial Park/Glebe Foreshore and new North/South links between Victoria Road and City West and to Callan Park/Iron Cove Bridge/Victoria Rd.

The existing Rozelle Goods Rail Yard and City West Link are major barriers to North/South active travel and every opportunity should be taken to improve the situation through construction of the above new North/South land bridges.

There is also considerable potential to reinstate Glebe Island Bridge for active travel use only, thereby providing a direct link from the existing Cooks River to Iron Cove GreenWay, along the Rozelle Rail Yards Link and across Glebe Island Bridge to Pyrmont/Ultimo and the City.

The GreenWay Program recommends a "whole of government" approach be implemented to coordinate, design and construct an integrated Rozelle Rail Yards Active Travel Network over the short to long term. Its over aching objective should be to greatly enhance active travel links from all surrounding areas/cycleways (North, South, East, West) to facilitate easy, safe and comfortable access to/through the Rozelle Rail Yards Recreation Area. Planning and implementation of the integrated active travel network should involve all key stakeholders including Sydney Motorways Corporation, TfNSW, RMS, Dept. Planning and Environment (including NSW Government Architect), Greater Sydney Commission, Inner West Council, City of Sydney and local cycling and community stakeholder groups.

## GreenWay recommendation 2.1- construct the Rozelle Rail Yards Link

The GreenWay Program strongly supports the proposed Rozelle Rail Yards Link from the proposed Rozelle Rail Yards Recreation Area to the existing GreenWay at Iron Cove. This would facilitate an extension of the GreenWay from Cooks River to the Bays Precinct/Anzac Bridge and is consistent with recommendations in the Greater Sydney Commission's Green Grid proposals in the draft Central Sydney District Plan.

GreenWay recommendation 2.2 - reinstate Glebe Island Bridge as an active travel only link The GreenWay Program strongly supports reinstating the Glebe Island Bridge as an active transport only link from the existing Cooks River to Iron Cove GreenWay via the proposed Rozelle Rail Yards Link across Glebe Island Bridge to Pyrmont/Ultimo and the City.

## GreenWay recommendation 2.3-maximise creation of new North/South land bridge

 links The GreenWay strongly supports the creation of new North/South links wherever possible eg the proposed land bridge to Bicentennial Park/Glebe Foreshore, to overcome the barrier effect of the City West Link and facilitate better active travel access from existing regionally significant recreation areas to the North (eg Callan Parkllron Cove) to/through the Rozelle Rail Yards Recreation Area and existing regionally significant recreation areas to the South and East (eg Bicentennial Park, Glebe Foreshore, Blackwattle Bay)GreenWay recommendation 2.4 - establish a 'whole of government' Rozelle Rail Yards active travel planning and delivery program The GreenWay Program strongly supports the establishment and proper resourcing of a 'whole of government' Rozelle Rail Yards active travel planning and delivery program to be responsible for coordinating an integrated approach to the improvement of active travel links from all surrounding areas to/through the Rozelle Rail Yards Recreation Area over the short to long term. The program should include all relevant parties including (but not limited to) TfNSW, SMC, RMS, DPE (including NSW Government Architect), Greater Sydney Commission, Callan Park Trust, Inner West Council, City of Sydney and local cycling and community stakeholder groups eg GreenWay Steering Committee, Inner West Bike Alliance.

## 3. Comments on M4/M5 Link EIS - Urban Design Strategy

The Urban Design section of the EIS Report proposes a number of key strategies to enhance the design quality and built form of the proposed Rozelle Rail Yards Recreation Area. Many of these strategies relate directly to key elements of the GreenWay Program, particularly in relation to our active transport, urban biodiversity, art/community culture, heritage and place making activities.

### 3.1 Urban Design Strategy objective "respond to the local character"

The area to be occupied by the Rozelle Rail Yards Recreation Area (formally the Rozelle Goods Yard) has a rich rail and port history. The residential areas surrounding The Goods Rail Yards and Blackwattle Bay are some of Sydney's earliest working class suburbs. The bays and foreshore areas of Parramatta River/Sydney Harbour were very significant for local indigenous people such as the Cadigal/Wangal people of the Eora Nation. Callan Park, a site of great recreational value and considerable Aboriginal and European heritage significance, is located less than 1 km North of the site.

## GreenWay recommendation 3.1 - respect and reflect local heritage and culture

 It is essential that the urban design for the Rozelle Rail Yards Recreation Area is in keeping with and reflects the Rail Yards' rich rail and port history, the 'working class roots' of the surrounding residential areas and the rich European and Aboriginal heritage of adjacent foreshore areas such as Blackwattle Bay and Iron Cove.GreenWay recommendation 3.2 - maximise physical and heritage links to Callan Park It is essential that during the development of heritage conservation and interpretation strategies and works, every effort is made to connect (physically and thematically) the Rozelle Rail Yards Recreation Area with the rich European and Aboriginal heritage of Callan Park and the Iron Cove foreshore area.

### 3.2 Urban Design Strategy objective "connect and provide for communities"

Construction of the Rozelle Rail Yards in the early $20^{\text {th }}$ Century and the more recent construction of the City West Link has created a significant barrier between existing residential areas to the North and South, in particular Rozelle, Leichhardt and Annandale. Establishment of the Rozelle Rail Yards Recreation Area, with new North/South land bridges and a greatly improved active travel network to/through the Rozelle Rail Yards from surrounding areas, represents a once-in-a-generation opportunity to help overcome the barrier effects of the City West Links and Rozelle Rail Yards and provide valuable, well designed and vibrant open space areas for the enjoyment of local residents and visitors.

GreenWay recommendation 3.3 - strive for well designed, vibrant recreation areas which are well connected to surrounding residential areas Establishment of the Rozelle Rail Yards Recreation Area is an invaluable opportunity to overcome the barrier created by City West Link and Rozelle Rail Yards and reconnect existing communities to the North and South. It is essential that the new public domain and recreation areas (formal and informal) help to re-establish North/South connections and provide a high quality, versatile and vibrant recreational resource which meets the needs of local residents and visitors during the day and at night.

### 3.3 Urban Design Strategy objective "enhance green links"

The Cooks River to Iron Cove GreenWay has been identified by the Greater Sydney Commission as the no. 1 Priority Green Grid project in the Draft Central Sydney District Plan
(2016). As suggested in our comments re: active travel in section 2 above, a proposal is also being considered to extend the existing GreenWay along the proposed Rozelle Rail Yards Link so that it becomes the 'Cooks River to the Bays GreenWay'. One of the reasons why the existing Cooks River to Iron Cove GreenWay has been accorded high priority is because it is a multi-purpose corridor (see section 1 above) which supports a range of activities of value to an inner city area subject to increasing development intensification. The existing Cooks River to Iron Cove GreenWay incorporates active travel links, urban bush care sites, well designed, multi-purpose hubs providing meeting places/community connections (particularly around the light rail stops), public art, formal/informal recreation areas, cafes etc. Creation of the Rozelle Rail Yards Recreation Area is an invaluable opportunity to extend the multi-purpose GreenWay East to the Bays, Anzac Bridge and Pyrmont/Ultimo.

GreenWay recommendation 3.4 - create a multi-purpose Green Grid extension from Iron Cove to the Bays Precinct/Anzac Bridge. Establishment of the Rozelle Rail Yards Recreation Area is an excellent opportunity to extend the multi-purpose Cooks River to Iron Cove GreenWay along the Rozelle Rail Yards Link to the Bays Precinct, Anzac Bridge/Glebe Island Bridge and Pyrmont/Ultimo. Modelled on the existing multi-purpose GreenWay, the extended section should offer multiple opportunities and facilities within a defined green corridor, including cycling, gathering places, public art, urban bush care sites, cafes, WSUD etc. All vegetation species should be native to the area and, where possible, grown from local provenance. Native species should reflect current GreenWay vegetation guidelines, as outlined in various GreenWay bush care strategies and revegetation guidelines ref: www.greenway.org.au.

GreenWay recommendation 3.5 - use GreenWay palette of vegetation species, street furniture, lighting etc for all new shared paths. To provide consistent, well designed, high quality shared paths which connect well with existing infrastructure, it is recommended that shared path designs and associated landscaping in the Rozelle Rail Yards Recreation Area and adjoining neighbourhoods, make use of, and/or are complimentary to the existing GreenWay palette of landscaping and streetscape elements including (but not limited to) street furniture, lighting, landscaping, signage, path width, native vegetation species etc.

### 3.4 Urban Design Strategy Objective "water sensitive urban design (WSUD)"

Provision of WSUD in redevelopment sites like the Rozelle Rail Yards Recreation Area should be a priority, to reduce overland flow/flooding, achieve multiple landscape design/open space objectives and help manage/mitigate stormwater pollution into Blackwattle Bay.

GreenWay recommendation 3.5 - implement best practice WSUD Best practice WSUD should be comprehensively applied throughout the Rozelle Rail Yards Recreation Area and adjacent foreshore and residential areas.

### 3.5 Urban Design Strategy Objective - "sensitive economic revitalization"

For many years the area which is the focus for this EIS has been blighted by a combination of the existing Rozelle Rail Yards and the heavily trafficked, noisy, high impact City West Link. The result has been a degraded, ugly, low value, low amenity "brown barrier" cutting through the surrounding high quality, heritage rich residential suburbs of Rozelle, Leichhardt and Annandale.

The proposed Rozelle Rail Yard Recreation Area is located immediately North and East of the Inner West Light Rail Corridor and GreenWay, which provide a socially and economically significant connection between the residential suburbs of the Inner West with the "jobs rich" suburbs of Pyrmont/Ultimo and the City. This role was recognized in the GreenWay Cost

Benefit Analysis (2016) developed by SGS Economics for the GreenWay councils (attach. C). It has also been highlighted in various economic strategies and studies commissioned by the former Leichhardt Council. In particular, these studies highlight the significant role of the Inner West Light Rail/GreenWay as a knowledge-based and creative industries corridor connecting Inner West knowledge workers to creative industries hubs in Pyrmont/Ultimo and the CBD. This economic and social value has been reinforced by the continuing redevelopment of redundant industrial land adjacent to the former Rozelle Goods Line (now Inner West Light Rail), such as the Lewisham West Development Precinct, which surrounds the Lewisham West Light Rail Stop.

The Lilyfield and Rozelle Bay Light Rail Stops are located in close proximity to the proposed Rozelle Rail Yards Recreation Arera and surrounding residential streets. This presents an opportunity for the existing residential areas and the proposed recreation area to be complimented by appropriate services and employment generating land uses, of an appropriate scale and location, to enhance social and economic value of the Rozelle Rail Yards area which, up until now, has mostly been either inaccessible to other uses or used for large-scale and relatively low value manufacturing and industrial uses (eg crane hire).

## GreenWay recommendation 3.6 - provide for appropriately-sized and configured mixed-use hubs in proximity to Rozelle Bay and Lilyfield Road light rail stops.

During the design of the Rozelle Rail Yards Recreation Area and accompanying active travel links and land bridges, consideration should be given to the introduction of appropriatelysized and configured services and employment generating land uses to compliment the existing residential/commercial mix in the surrounding, established residential areas of Rozelle, Leichhardt and Annandale. Particular attention should be focused on potential mixed use hubs around Lilyfield Road and Rozelle Bay light rail stops.

## 4. Comments on M4/M5 Link EIA - Chapter 20 - biodiversity

As described in section 2 above, one of the most important functions of the Greater Sydney Commissions' Green Grid is to enhance urban biodiversity and provide links between existing significant urban biodiversity corridors such as Parramatta River, Iron Cove and the Cooks River. The existing Cooks River to Iron Cove GreenWay was established over 15 years ago to enhance urban biodiversity through establishment of urban bush care sites along the corridor (currently 16 in total) and encourage use of indigenous native vegetation species in all open space areas, public and private land scape schemes in the vicinity of the corridor. The proposed Rozelle Rail Yards Recreation Area is an important opportunity to retain valuable existing vegetation/habitat (including some weed habitat) and establish new habitat wherever possible to protect locally significant animal and bird populations and boost local biodiversity value.

The existing Rail Yards contain the most extensive areas of native small bird habitat in the (former) Leichhardt area, much of it in weedy sections. This has been documented in the report Avian Biodiversity Monitoring and Bird Management within the Leichhardt LGA (Saunders 2008). Species range from the Superb Fairy Wren and Tawny Frogmouth to the Eastern Yellow Robin and Grey Fantail. During the construction of the M4/M5 link and the Rozelle Rail Yards Recreation Area, it is essential that total clearing of existing weedy habitat is avoided, as this would significantly impact on local biodiversity, in particular small bird breeding areas and foraging habitat. As is the case with the GreenWay/Light Rail Corridor, any clearing to make way for new development should be staged, to maintain some appropriate habitat for local species to survive through the period of change in their urban environment. Where areas are cleared, opportunities should be investigated for the establishment of compensatory vegetation areas. This was done successfully during the development of the Inner West Light Rail corridor, which was conditioned by DPE to provide

1Ha of compensatory bush care area, to replace vegetation/habitat lost during construction of the light rail extension.

GreenWay recommendation 4.1 - staged clearance of existing habitat (including weedy areas) and use of compensatory plantings. Where clearing of existing vegetation is required (including clearance of weedy areas), it is recommended that this be done in a sensitive, staged manner to allow existing, locally vulnerable bird and animal species to adapt to rapid change in their local environment/habitat. In cases where extensive areas of existing vegetation (including weedy areas) are to be cleared, there should be a requirement to compensate for this loss by the establishment of new native vegetation areas of equivalent size to the cleared areas, to provide adequate habitat compensation for locally vulnerable species eg small birds.

GreenWay recommendation 4.2 - retention of valuable pockets of native vegetation Every effort should be made to retain existing, valuable pockets of native vegetation throughout the site and to use this vegetation as sources of local provenance for propagation and progressive re-vegetation of new open space areas within and adjacent to the site.

GreenWay recommendation 4.3 - use recommended GreenWay vegetation species and extend green corridors wherever possible All revegetation and newly landscaped areas should use appropriate, native vegetation species (preferably sourced from local provenance), as recommended in relevant GreenWay bush care and revegetation guidelines (see www.greenway.org.au). During the establishment of new green active transport links eg the proposed Rozelle Rail Yards Link, appropriate landscaping should be used and new bush care plantings established wherever possible, to extend and enhance the existing Green Grid network, as recommended in the Greater Sydney Commission's Draft Central Sydney District Plan.

Thank you for the opportunity to provide comments in this submission on the proposals outlined in the M4/M5 Link EIS (SS17485).

If you have any questions and/or would like more information about the GreenWay Program recommendations in this submission, please contact with the GreenWay Place Manager, Nick Chapman at nick.chapman@innerwest.nsw.gov.au, mob 0417402043.

Yours sincerely

Nick Chapman
GreenWay Place Manager
c/o Inner West Council

## attachments

A GreenWay Program DL
B Greenway Missing Links Update - October 2017
C Greenway Cost Benefit Assessment Report, SGS Economics, April 2016

## I submit my strongest objections to the WestConnex M4-M5 Link proposals as

 contained in the EIS application \#SSI 7485, for the reasons set out below.

Address:


Submission to:

Planning Services, Department of Planning and Environment GPO Box 39, Sydney, NSW, 2001

Attn: Director - Transport Assessments
Application Number: SSI 7485
Application Name:
WestConnex M4-M5 Link

Suburb: $\qquad$ ENMOR= Postcode ...2042
$>$ Alternative access route for trucks - Leichhardt: The EIS states that there are 'investigations' occurring into alternative access to the Darley Road site. The EIS does not provide any detail on which residents can comment about alternative access which would keep trucks off Darley Road. The plans for alternative access should be expedited. It should be a condition of approval that the alternative access is confirmed and that no spoil trucks are permitted to access Darley Road due to the unacceptable noise, safety and traffic issues that the current proposal creates
$>$ I do not consider so many disruptions of pedestrian and cycle ways to be a 'temporary' impact. Four years in the life of a community is a long time. The EIS acknowledges that there will be more danger in the environment around construction sites. It is a serious matter to deliberately take steps to reduce the safety of a community, especially when as the traffic analysis shows there will be a legacy of traffic congestion even in 2033. A promise of a plan is NOT an answer to those concerned about the impacts.

The original objectives of the project specified improving road and freight access to Sydney Airport and to Port Botany. Neither Stage 2 or 3 provides such access. Both the new M5 and the new M4-M5 Link will dump 1,000s more per day onto the roads to the Airport which are already at capacity.
> Where is the commitment to community consultation and to long term planning when the EIS for the M4/M5 Link is released before any response to the extensive community feedback on the M4-M5 Link concept design could possibly have been seriously considered. This demonstrates deep government contempt for the people of NSW and the communities of the Inner West of Sydney in particular.

The impact of the project on cycling and walking will be considerable around construction sites. The promise of a construction plan is not sufficient. There has not been sufficient consultation or warning given to those directly affected or interested organisations. There needs to be a longer period of consultation so that the community can be informed about the added dangers and inconvenience, especially when you consider that it is over a 4 year period.

There has been no independent consideration of alternatives, in particular of a major expansion of commuter rail transport. The Department should reject this inadequate EIS and have a review of the flawed processes that have already led to massive expenditure on the inadequate option of privatised toll roads. This proposal is out of step with contemporary urban planning.

Campaign Mailing Lists : I would like to volunteer and/or be informed about the anti-WestConnex campaigns - My details must be removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties
$\qquad$ Mobile $\qquad$

Mr Tony Wong \& Ms Kwung In Min
1 Callan Street
Rozelle, NSW 2039
0414679664
2 October 2017
Attention: Director, Transport Assessments Planning Services Department of Planning and Environment
GPO Box 39
Sydney NSW 2001
Application number: SSI 7485

## Depariment of Planning Fircued 11 OCT 2011 <br> Scanning Room

## Dear Sir/madam,

This is a submission to the EIS for the M4-M5 Link.
We object to the location of the iron cove link ventilation facility/outlet as part of the M4-M5 Link project and believe EIS design should be rejected on current location of the iron cove link ventilation facility, as there are alternate sites that are more appropriate in terms of reducing human impact:

The current proposed design of the iron cove link ventilation facility will:

- Adversely impact respiratory health on all nearby residents, due the unfiltered design of the ventilation facilities.
- Have a large human (community) impact unnecessarily due to close proximity to densely populated residential areas. (Other portals intersection of Victoria Road and The Cresent are in less populated, and in industrial sites - see Figure 1. as a proposal)
- It will have negative affects on air quality around the surrounding bay, and impact the usage of the surrounding parklands and around the bay walk,
- Potential adverse impacts on the development of children at nearby Rozelle Public school due to air quality and noise (extraction fans and facilities)
- Major overshadowing from main ventilation stack of residential properties to the southern side of the outlet.

The proposed relocation site (Western corner of the intersection of Victoria Road and The Cresent - see Figure 1) solves numerous issues mentioned above:

- The site should be the primary location as there is already a planned tunnel portal (two in fact) which we have been informed by SMC representatives that the tunnel ventilation outlets need to be located near portals
- The site is already in an industrial area, that will not destroy established dense residential communities, far less human impact.
- The site reduces the air quality/noise impacts to Rozelle Public school
- The site poses minimal/no overshadowing impacts on residential blocks


## In Response: We request:

1. Relocation of the ventilation facilities to the western corner of the intersection of Victoria Road and The Cresent (See Figure 1) where the main tunnel from the M4/M5 link will join to Anzac bridge, logically this is where the facility should be located given the current industrial/commercial usage of surrounding land.
2. Filter all particulate coming out of the ventilation outlets/facilities


Figure 1. Proposed relocation of Iron cove link ventilation facility

suistration

We also object to EIS design concepts for the M4-M5 Link as it will also dramatically degrade the enjoyment and quality of life at 1 Callan Street, Rozelle (the property) in the following ways:

1. Substantial increase in noise levels from new bus stop located next to the property
2. Traffic safety of vehicles exiting/entering Callan Street
3. Major overshadowing from main ventilation stack north of property importantly mainly during the key time in the morning when we are actually at home to enjoy it.
4. Potential Electro Magnetic Field exposure from the new electricity sub station located adjacent to the property
5. Potential overshadowing from new ventilation facility ( 20 m height?) east of property
6. Noise and dust from new ventilation facility

## 1. Noise levels from new bus stop located next to the property

The introduction of a new bus stop will increase the noise levels and enjoyment of our backyard as it is aligned to the rear of the property.
The additional noise will be due to the acceleration and deceleration of busses at the new stop, and this is of particular concern due to the high frequency of busses that will be expected to stop/start at this stop.

## Recommendation:

1. Relocation of bus stop in between Springside Street and Callan Street, as the adjacent building will now be a commercial facility (Iron Cove ventilation facility), and will have no impacts on residents.
2. Addition of sound barrier (design to be agreed to by owners of 1 Callan Street) on northern boundary and sound insulation to the 1 Callan st property, as well as extensive plantings of mature trees to reduce the additional noise as a result.


Figure 2. Relocation of proposed bus stop bay

## 2. Traffic safety of vehicles exiting/entering Callan Street

The intersection of Victoria Road \& Callan St should be made into a cul de sac due to the potential for vehicle accidents due to the new curvature of the proposed design resulting in a less line of sight visibility, and buses/vehicles approaching at speed due to momentum of the hill descent between Darling st and Callan St. The existing Victoria road alignment to Callan St, is currently challenging and dangerous, the new curvature makes that challenge even harder, as the line of sight is further compromised.

## For buses travelling along Victoria road:

- The bus lane now having less line of sight for exiting vehicles from Callan St results in vehicles exiting, potentially in front of a bus, and bus drivers with less time to react.


## For vehicles turning left onto Victoria Road from Callan St

- The new curvature in the road makes the even harder to exit, and more of a blind corner further compounded by the speed vehicles/buses will be approaching due to momentum of the hill descent.


## For vehicles turning into Callan St:

- The turn into Callan St from Victoria road is currently challenging and dangerous as the left hand turn has to be made in the bus lane, with an approaching bus with limited line of sight to be able to react to turning vehicle. The new design makes it even more dangerous as the curve is even more accentuated, and the bus has even less time to react to a vehicle turning into the narrow Callan street.

Recommendation: The intersection of Victoria Road \& Callan St should be made into a cul de sac

## 3. Major overshadowing from main ventilation stack north of property

Due to the realignment of the main ventilation tower directly north of the property there is a larger over shadowing impact on the backyard where most of our northerly aspect will be occupied by a tall ventilation tower.

Recommendation: The ventilation facility should be moved between the section on top of the tunnel between Toelle St \& Clubb St, as there would be less impact on overshadowing on neighbouring properties. See Figure 3
Hotern

Sthers



Figure 3. Relocation of ventilation stack

## 4. Electro Magnetic Field (EMF) exposure from the new electricity sub station located adjacent to the property

Due to the close proximity of the substation adjacent to a residential property there is higher potential of ill effects of exposure to Electro Magnetic Field (EMF) for residents in Callan street, this is completely unnecessary to position it so close to densely populated residential properties, when there are more appropriate locations located in more commercial zones.

Recommendation: The substation be relocated to traffic island in the center of victoria road. See Figure 4


Figure 4. Relocation of substation

## 5. Potential overshadowing from new ventilation facility east of property

The height of the structure is still in question, but should be limited to ensure that it minimizes any further overshadowing impact on neighbouring buildings.

Recommendation: Restrict building height of ventilation facility to 8 meters

## 6. Noise and dust from new ventilation facility

There will be additional noise and dust from the new ventilation facility opposite the property, causing further noise and reduction in the quality and enjoyment of the property.

Recommendation: Restricted operating hours, 7 am to 6 pm , and strict noise restrictions between 6 pm and 7 am . The facility should also be insulated via a sound barrier to ensure no impacts on residents of Callan street.

## In conclusion

Due to the concentrated build up of iron cove link infrastructure surrounding our property, the impact will be:

- Increased noise levels
- Close proximity of new ventilation facility
- Close proximity of new bus stop
- Potential high pitch noise from electricity substation
- Increased dust levels - close proximity to tall ventilation stack
- Increased chance of exposure to EMF - close proximity to new electricity substation
- Increased in overshadowing to backyard during the morning period, which is the only time we get to use our backyard (we both work full time)
- Increased traffic in a street that is not suitable for more traffic, potentially leading to reduction in the capacity for off street parking in Callan Street.

All of these factors contribute to the quality and enjoyment of the property which will be significantly diminished and almost render the property unfit for habitation (unless the first 4 points are addressed). The net result is a property we can no longer justify to add value to due to the reduction in quality and enjoyment of the property, and a property we cannot now sell due to the massive diminishing of the underlying value in our property, because of the build up of all the associated tunnel ventilation infrastructure.

Signed


Tony WONG


Kwung In MIN


[^0]:    Campaign Mailing Lists: I would like to volunteer and/or be informed about the anti-WestConnex campaigns - My details must be removed before this submission is lodged, and must be used only for campaign purposes and must not be divulged to other parties

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[^6]:    National Trust Policy Statement on Urban Freeways, 16 September, 1976
    National Trust Policy on Urban Freeways, 21 July, 1981
    Towards a Transport Policy for the National Trust (Revision 1), 1989
    National Trust Policy Paper - Transport - The Heritage Implications, 1995
    Trust Alert - Motorway proposals threaten inner city Urban Conservation Areas, September, 2005

[^7]:    Within our own walls we determined what we'd build, and when we'd do it, and we just went and did it. We told people that we wanted their land and that we'd take it ... We developed a very bad reputation ... - The official oral history of the Sydney - Newcastle Pacific Highway (Roads and Maritime NSW)

[^8]:    WestConnex is socially, environmentally and financially a SCANDAL ... it and Adani are the two greatest threats to global warming in this country.

    - Sydney Lord Mayor Clover Moore, anti-WCX rally Euston Rd, Alexandria, April 2017

[^9]:    ${ }^{1}$ Roads Australia, 2013, Building the Case for Customers.

[^10]:    ${ }^{2}$ Searle, G and Legacy, C, 2017, Do the business cases for major Australian transport infrastructure adequately incorporate planning concerns? Draft Paper for the State of Australian Cities Conference, Adelaide, November 2017

[^11]:    ${ }^{3}$ Sydney City Centre Access Strategy, (TfNSW, 2013)
    ${ }^{4}$ Coordinator General of the Sydney City Centre
    ${ }^{5}$ Sydney City Centre Access Strategy, (TfNSW, 2013)
    ${ }^{6}$ Coordinator General of the Sydney City Centre

[^12]:    ${ }^{7}$ Barnett, Adrian G, It's safe to say there is no safe level of air pollution', Australian and New Zealand Journal of Public Health Vol 38. Issue 5

[^13]:    Submission: Online Submission from Tanya Plibersek MP of Tanya Plibersek MP (object)
    https://majorprojects.accelo.com/?action=view activity\&id=228385

[^14]:    Source: SGS Economics and Planning

[^15]:    Source: SGS Economics and Planning, 2016

