

Submission from:

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Objection to State Significant Infrastructure Application No. SSI-8863

Western Harbour Tunnel and Warringah Freeway Upgrade

I COMPLETELY AND UTTERLY OBJECT TO THIS DEVELOPMENT. I have waded through the extensive documentation and still can find no compelling reason to go ahead with this project. There is no business case, no transparent reason why so many communities, parks and green spaces have to be destroyed with significant environmental and healthcare related impacts.

Failure to examine Alternatives/ Options requirements of the Secretary's Environmental Assessment Regulations (SEARS)

The EIS section detailing examination of alternative options blithely assumes massive inward and unsustainable migration, and the premise that 'it is essential for Sydney to continue to be a competitive global city'. Who is continuing to support this rationale? It is the Property Council, Urban Taskforce, the Construction Federation all massive vested interests in continuing to propose massive infrastructure trojan horses to which are tied to the concept of TOD and massive overdevelopment bearing no relationship whatsoever to context, community, heritage, liveability or the provision of social and green spaces. This rationale is extracting a terrible cost to the city of Sydney. It is creating a chasm between communities and the development and property lobbies. It is tearing the heart out of Sydney.

I fully support the following Wollstonecraft Precinct Submission as the basis of my submission. I have read it thoroughly and it represents exactly my objections to this EIS. I have examined and worked through these issues with the members of the precinct.

The review of the EIS for these projects has identified significant concerns including;

- inadequate justification and need;
- loss of green, open space;
- construction and operational road network impacts;
- air quality and human health concerns and
- environmental, visual, social, community amenity and heritage impacts

The analysis has also concluded that aspects of the Secretary's Environmental Assessment Requirements (SEARs) have not been adequately met in the EIS. Due to the limited time available given to absorb the massive amount of information in the EIS documents, Precinct's objections do not cover all of these concerns in detail. Furthermore, because we had insufficient time, we make no comments in relation to the WHT south of the Harbour. We reserve the right to make additional comments in a later submission.

OBJECTION No. 1 - INADEQUATE JUSTIFICATION AND NEED FOR THE PROJECT

Precinct starts by objecting to the project and recommends that it either be abandoned or completely revised preferably in favour of a solution that is based on public transport that will: cost less, be capable of moving more people, have much lower impact on

North Sydney CBD and the harbour, integrate with other public transport systems, reduce rather than increase vehicular traffic, and align with the NSW government's policy of an aspirational target to achieve net zero emissions of CO₂e greenhouse gas emissions by 2050.

Reasons for this objection go back as far as 2011:

- Almost all other progressive cities in the world are restricting or reducing growth of road traffic in favour of public transport. Transport for NSW itself has a preference for public transport over more roads yet RMS, its recently adopted orphan subsidiary is continuing with its plan for this unwarranted project without any financial justification.
- An enquiry to RMS received this response: *“A summary of the final business case will be prepared and released by Infrastructure NSW, the NSW Government's independent infrastructure advisory agency, once an investment decision has been made.”* Such a statement is beyond comprehension.
- Infrastructure NSW an independent Authority, in its 8 years of operation since inception in 2011 and first reporting in 2012 has never once chosen in any of its annual reports, to promote the WHT project as one worthy of investment that meets its charter to ensure that the taxpayer's money is spent wisely. Although INSW had been directed to include the project in the State Infrastructure Strategy (see below) the caveat has always been that it is subject to an approved business case.
- Against that background in 2014, the then Premier directed, in developing the *State Infrastructure Strategy*, Infrastructure NSW should take into account certain State strategic priorities - major projects to address congestion on key arterial routes across Sydney, including in Southern Sydney, the West and Northern Beaches, and the augmentation of WestConnex with greater north/south connectivity. This is significant as it effectively prioritised motorway construction before a comparative evidence-base was generated or detailed regional analysis of current and future travel patterns was undertaken, to inform decisions about the preferred transport mode or route alignment from a broad set of options. This analysis is ordinarily expected to occur in best practice strategic transport planning. The Premier's directive resulted in the inclusion of the Western Harbour Tunnel (WHT), on an alignment premised on a future motorway connection to the Northern Beaches (Beaches Link), in INSW's 2014 update of the *State Infrastructure Strategy*.
- In September 2017 an even more significant event occurred: The Premier announced in the middle of a by-election campaign for the electorate of North Shore that government had decided to push ahead with the WHT & BL project. Once again there was no consideration of alternative modes of transport. Quite the opposite. The project was “locked in” and the next capital works budget in 2018 authorised expenditure for design works to proceed. The year following, a massive \$500 million was included in the State Capital Works Budget so as to be “shovel ready” as one member of the government stated.
- In July, 2018 the NSW Government released the *‘Western Harbour Tunnel and Beaches Link Project Update’*. In response to this, North Sydney Council made a submission to the WHT/BL consultation, requesting clarification of numerous issues and concerns identified in the report as well as the following:
 - that state government release a strategic/final business case for WHT/BL;
 - that more information regarding the design, construction and operational impacts on North Sydney be provided;
 - that WHT/BL exhaust stacks be filtered; and
 - that clarification of the impacts of WHT/BL on existing and future open space, sports facilities and water treatment infrastructure at Cammeray Golf Course be provided.
- Precincts and members of the public also lodged similar submissions. Despite large volumes of information on public exhibition, none of the specific questions and comments have ever been answered properly if at all. One question never answered

but now required under SEAR's is to report on alternative modes of transport for the WHT&WFU. Later also, the Beaches Link.

- The EIS which comprises 9,000 pages devotes less than 3 pages to alternative modes of transport such as rail and bus. In the case of the Beaches Link, RMS claims population is insufficient to warrant a mass transit railway. In that case it certainly does not justify a road tunnel.
- Against this background, RMS's only justification is that motorists will save a few minutes of travel time and that as a consequence there will be lower traffic on the harbour bridge and tunnel. However, experience shows that when major roads are added or upgraded, more traffic is quickly induced to use those new facilities. The downside to short-term travel time savings will be a permanent increase (doubling) of harbour bridge and tunnel tolls to help offset the impact of motorists choosing to increase use of the harbour bridge and tunnel rather than use the new WHT. For those people who don't have a need to use the WHT this is an unfair imposition.
- Justification of the project is also based on modelling that excludes the impact of the mode-shift that will result when Sydney Metro West is operational prior to the time when the WHT is planned to be completed. It's exclusion from WHT and WFU modelling is fundamental as its inclusion in the analysis would potentially further bring into question the need for the WHT and WFU proposal.
- The WHT and WFU proposals are not underpinned by the level of governance and transparency required to determine the best long term transport solutions for Sydney.
- Chapter 26 of the EIS deals with actions that will be taken in relation to climate change. The chapter commences with actual and forecast statistics produced by the IPCC, one of which is the base case level of atmospheric CO₂ now (410 ppm) and in 2100 (940 ppm), a staggering 134% increase. It goes on to say that during construction, CO₂e of greenhouse gas emissions produced will be 784 Kt and each year there will be between 59 and 72 Kt CO₂e greenhouse gas emissions. Over 25 years to 2050 plus the construction phase, total emissions will be between 2.26 Mt and 2.58 Mt of CO₂e greenhouse gas emissions.

The proposal doesn't align with the NSW government policy of net zero emissions by 2050 and for this reason alone it is not justifiable.

One would expect a government authority to stop and think: why propose a project for more vehicular road traffic when it is a fact that public transport by rail produces only a fraction of the CO₂e greenhouse gas as would a major public road built for petrol and diesel driven vehicles. If RMS won't stop and think, then the Department of Planning Industry and ENVIRONMENT should stamp its authority and stop this project.

- The Beaches Link project (which goes to Frenchs Forest) is clearly not assured to go ahead because of its separation as a stand-alone project due for exhibition mid 2020. The impacts of the Beaches Link project though are included in the Warringah Freeway Upgrade and this makes no sense at all.
- Cost estimates are vague at ~\$16 billion. The changes to the proposal that will be needed to get support from the community, will increase that \$16 billion guesstimated (and estimates are a best guess) cost very significantly.
- The economy is being savaged by the impacts of the Coronavirus pandemic. It will be some time before a clear indication of that impact is known and how long it will take to repair. Government assistance (federal and state) will be needed for the productive part of the economy to revive and to restore our exports and industry. This project would soak up funds that will otherwise be needed to support that part of the economy. An alternative proposal for rail transport would be preferable to the road tunnel and would contribute to the economy with a superior overall outcome.

IN THE EVENT THAT THE PROJECT IS APPROVED IN SOME FORM

OVERARCHING OBJECTION – No. 2

Precinct strongly objects that the EIS Ignores the Exhibited Documents in Appendix V discussing Urban Design, Landscape Character and Visual Impacts that are to drive the Urban Design Outcomes for Road and State Government Projects in General.

The exhibited documents are “*Beyond the Pavement*” by Transport for NSW and “*Better Placed*” by the NSW Government Architect. There are many important statements in the ‘*Beyond the Pavement*’ document that this project completely ignores, such as in the Urban Design Policy Chapter:

- *‘Projects should be sensitive to existing built, natural and community environments in which they are situated. They should contribute to the future character, functioning and convenience of adjacent areas, provide an interesting experience in movement and should be safe for all users and the community. The architectural and landscape quality of road should be visually pleasing’*
- *‘Urban Design must be integrated into the process of developing, delivering and managing the road’*
- *‘Projects must contribute to the quality of urban design, life of communities and contribute to the sense of place’*

In Chapter 1.3 on Physical design outcomes the document states that:

- *‘road transport infrastructure must fit sensitively with and that roads, bridges, bicycle and pedestrian paths should be designed as part of public domain’*
- *‘The infrastructure planning and design must contribute to the accessibility and connectivity of communities and a general permeability of movement through areas by all modes of movement, including walking and cycling’*

Conditions of Approval in relation to this Overarching Objection No. 2:

As a Condition of Approval, it is suggested that the EIS includes:

- A positive statement that the design must adhere to the Exhibited Documents in Appendix V discussing Urban Design, Landscape Character and Visual Impacts that are to drive the Urban Design Outcomes for Road and State Government Projects in General.
 - A requirement that in relation to North Sydney LGA, a reference design group is formed to oversee and ensure that the design is completed in accordance with the documents in Appendix V referenced above.
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OBJECTION No. 3 - LOSS OF GREEN OPEN SPACE

Precinct strongly objects to the fact that as a result of this project as defined in the EIS there is a permanent loss of green, open space in the North Sydney LGA of 2.9 hectares mainly in the area of the Cammeray golf course. However, because of the uncertainty of the future plans for Berry Bay after completion of construction, this figure could substantially increase.

Precinct strongly objects to the lack of improved linkages for pedestrians and cyclists

Precinct strongly objects to the lack of definitive plans and provision of funding for the return of construction sites to the community.

Precinct also objects to the fact that the construction period of 5 years for the Warringah Freeway Upgrade will result in an even more significant loss of green, open space and inconvenience caused by construction traffic throughout North Sydney. The construction site at Cammeray Golf Course will almost halve the use of the site for recreational purposes. It is not fair to dismiss this loss of convenience and the associated increase in traffic and pollution as being necessary to obtain the so-called long term benefits which have been demonstrated by optimistic forecasts of traffic reduction once the project is complete and dismissal of or underestimates of the disadvantages North Sydney Council and the wider community.

Precinct also objects to the absence of the provision of more green space that is desperately needed for school children. RMS is by its proposal, happy to exhaust unfiltered highly concentrated pollutants from the tunnel into the atmosphere near schools yet has no offsetting proposal that would help alleviate the shortage of green open space playing fields for children now and into the future. It could easily do so by covering part of the Warringah Freeway and providing pedestrian access from nearby schools. The DPIE is urged to think about this much needed amenity for our children whilst at the same time insisting on filtration of the tunnel exhaust gases.

Reasons for Precinct's objections include but are not limited to:

- North Sydney has one of the lowest ratios of green open space area to developed area and is already critically short of green, open space when compared to other LGAs in the Sydney basin. Rather than a loss, there should be an increase in green, open space provided by this project whilst the government has the chance to do so.
- School children need more green space and playing fields now and even more in the future as population explodes.
- The Cammeray Golf Course, on state owned land is already one of, if not the smallest areas for recreational golfing available to the public in NSW. The proposed increase in the width of the Warringah Freeway, the proposed entry to the Beaches Link tunnels and the location of buildings that will service the ventilation of both tunnels will significantly reduce that recreational space. A better alternative is needed.
- The land on which the golf fairways and greens sit serves as a catchment for stormwater that North Sydney Council harvests for watering open green space and flora in the LGA. The volume of water harvested is ~ 30 million litres annually. RMS acknowledges the impact of the construction site and the permanent loss of space will have on this catchment and is "investigating solutions". This is a major deficiency of the EIS also seen elsewhere, that addresses solutions to negative impacts of the project "that will be solved as they arise". Those solutions must be documented and included in any conditions of approval and the complete life-time cost borne by RMS. It would not be acceptable to lose for one minute the use of the stormwater catchment and its reuse during the construction phase.
- The Ridge Street temporary construction site significantly reduces green, open space of St Leonards Park for 4+ years, will permanently remove part of the park and leave a near vertical permanent scar along the edge of the freeway where the Falcon Street off ramp emerges from the tunnel.
- The information sheet "Future Use of Berry Bay" is unclear, leaving many questions unanswered before approval of this EIS, not the least of which is who pays for the facilities that are decided upon and who is the umpire. It does not even attempt to stipulate that there will be no permanent loss of green open space as a starting point.

Mitigation Measures and Conditions of Approval in relation to Objection No. 3:

As a Condition of Approval, it is suggested that the EIS includes:

- The Warringah Freeway Upgrade to facilitate the future Beaches Link and the ventilation of the tunnels to exhaust stacks must not result in permanent loss of any green open space from the Cammeray golf course.
- The facilities buildings that will house ventilation equipment for the tunnels and exhaust stacks should be located well underground and redesigned so that they can if necessary, later include filtration equipment. The purpose of this measure is to eliminate the permanent loss of open green space on the Cammeray Golf Course, to protect the health of the public from air pollution and to help with the solution to loss of water catchment for North Sydney Council's use.
- The proponent must, before commencing the WFU, design and provide at its cost a permanent solution to harvesting and distribution of the stormwater presently harvested and distributed by North Sydney Council from the Cammeray Golf Course.
- Areas for car parking on the construction sites are to be reduced and that shuttle buses provided to deliver workers to and from the site to nearby public transport pick up / drop off locations. (For example, this would allow a reduction in the site footprint and less impact on the Ridge Street boundary. It may even eliminate the need for the Ridge Street East construction site.)
- Approved detail plans and funding for how construction areas and work depots throughout the North Sydney LGA (Cammeray golf course and Berry Bay) will be developed or reinstated.
- All Remediation Plans and Costs so that they are not left to North Sydney Council to fix
- Creation of more Green Open Space and improving pedestrian linkages such as a green bridge from Cammeray to St Leonards Park
- Inclusion of an approved master plan for the Future Use of Berry Bay with an undertaking that the cost of implementing the final plan will be fully funded by RMS.
- Building of more land bridges across the Freeway
- New open space and green grid, a concept being pushed by Greater Sydney Commission for pedestrians and cyclists.
- Constructing a steady grade cycleway from Falcon Street/Military Road to Milsons Point and completing the Sydney Harbour Link (www.sydneymarbourlink.com)
- Building a dedicated bus loop to service both railway stations to help create a more pedestrian friendly, healthy environment.
- Provision at RMS cost, of a public park comprising green open space and cycle paths over the Warringah Freeway along the length of the North Sydney CBD with access from Mount Street. This has been a vision promoted by Council, precincts even developers, but the upgrade provides the opportunity for government to invest in a truly generational change for public benefit without the need for a trade-off to private interests.
- Provision of a separate green roof over the freeway near Cammeray such that it is designed primarily for the use of children to play and for public use at other times.

OBJECTION NO. 4 - CONSTRUCTION AND OPERATIONAL ROAD NETWORK IMPACTS

Precinct strongly objects to the negative impact on pedestrian safety and want to ensure that pedestrian safety is addressed before any approvals are given to this project. For North Sydney CBD and the whole LGA more generally, there will be immense permanent collateral damage from the WHT project as it is currently proposed.

The North Sydney LGA has the highest concentration of schools in Australia. We need to ensure we are creating a child-friendly and safe walking environment and not prioritising cars over people. The proposal to funnel more cars onto North Sydney streets reduces pedestrian amenity and safety for students and workers.

Precinct strongly objects to the WHT & Warringah Freeway Upgrade because the traffic impact on local streets is unacceptable.

The EIS shows the intersection performance of many key intersections along the Pacific Highway, Miller Street and Military Road will have an 'F' rating, the lowest rating there is meaning traffic can't get any worse, at peak hours:

- Miller St and Falcon St intersection
- Miller St and Berry St intersection
- Miller St and Ernest
- Miller St and Amherst Street
- Pacific Highway and Bay Rd
- Pacific Highway and Berry St
- Military Rd and Ben Boyd Rd

This analysis demonstrates the fundamental disconnect between the identified outcomes of the WHT and WFU projects and the strategic objectives of adopted state land-use and transport planning strategies. The 30 minute city paradigm described in the Region Plan is public transport specific. The EIS shows increases in private vehicle accessibility. These notions are at odds with each other.

Precinct further objects to the fact that RMS has demonstrably failed to cooperate closely with North Sydney Council in relation to which the EIS suggests that the negative impacts of the WHT and WFU projects on the North Sydney CBD will be minimised through the *"on-going development of the North Sydney Integrated Traffic Plan (NSITP)"*.

However, recent reports from Council suggest that the NSITP has been deferred indefinitely.

This lack of cooperation is also evidenced by the following examples of differing approaches to through traffic:

Miller Street:

- North Sydney Council has plans for a Miller Street Pedestrian Plaza (Miller Street Place) by closing through traffic between the Pacific Highway and Berry Street
- The EIS has a half-hearted approach to traffic management by closing right hand turns from Miller St onto Berry St.

Berry Street:

- North Sydney Council's vision is to make Berry Street two-way bi-directional with parking lanes either side and widened footpaths. Berry Street is the one street in North Sydney that enjoys the sun most of the day where people can sit on widened footpaths to enjoy lunch or a coffee before work.
- The EIS shows it as a Berry Highway - 4 lanes heading east from the Pacific Highway, completely destroying the chance of North Sydney Council's vision coming to reality.
- Removal of the left turn slip lane from the Warringah Freeway (northbound) and Falcon Street (westbound) means that all northbound Pacific Highway traffic, with destinations between Crows Nest and Chatswood, will be channelled through the North Sydney CBD as a result of WHT and WFU proposals. This is a major change from the 50-50 split that currently occurs between the Pacific Highway and Falcon Street routes and the preferred outcome identified in the *North Sydney Integrated Transport Program*, which sought to encourage more traffic to use the Falcon Street route in preference to the Pacific Highway through the North Sydney CBD.
- Detailed examination of the EIS proposal by North Sydney Council proves beyond any doubt that the projects do nothing at all to simplify the most complex road in

Australia and instead has made it more complex. At the same time, the impact on North Sydney CBD and nearby roads results in unacceptable increased traffic. In short, it represents a disastrous outcome for North Sydney that threatens years of careful planning to improve the public domain and align the CBD with the North District Regional Plan.

- The impact on North Sydney is profound and the conclusion is that a mass transit solution is the only way forward.

Precinct further objects to certain omissions in the EIS Appendix Y – Compilation of Environmental Management Measures:

- The section dealing with Traffic and Transport has no mention of management measures during Design – which would include consultation with North Sydney Council.
- The document deals only with three areas:
 - Pre-construction - Construction traffic. This covers road pre-condition reports and repair/remediation action only where necessary.
 - Construction - Apart from reference to Maritime, this section deals entirely with Construction Traffic on roads.
 - Operation – This mentions a review of operational network performance will be carried out 12 months post opening of the project and again at 5 years post opening to confirm the operational impacts on surrounding arterial roads and major intersections. There is no suggestion about remedial actions if needed. We know there will be numerous negative impacts in North Sydney because RMS has not consulted properly with North Sydney Council.

Mitigation Measures and Conditions of Approval in relation to Objection No. 4:

As a Condition of Approval, it is suggested that the EIS includes as a minimum:

- Using a Tunnel bypass of Berry St to feed through traffic onto the Harbour Bridge and onto the Beaches Link as an essential requirement for the North Sydney city CBD to retain any sense of pedestrian friendliness.
- Retention of the northbound slipway from the Warringah Freeway and Falcon Street (westbound).
- Using truck convoys so that individual streets can be opened (and closed) at reasonably predictable and nominated time, enabling local residents to plan accordingly.
- Providing shuttle bus transport to work site and designated off-site parking for workers so local businesses/residents do not lose access to their on-street parking.
- Adding a dedicated bus lane in Blue Street and Pacific Highway
- Creating land bridges to facilitate 'green grid connectivity' and new walking paths, cycle ways, sports fields and parklands.
- Constructing a steady grade cycle way from Falcon St/Military Rd to Milson's Point and the completion of the Sydney Harbour Link.
- Urgent review of the proposed traffic system flows detailed in the North Sydney Area particularly streets like Pacific Hwy, Miller St, Berry St, Falcon St, Ernest St
- More thorough, rigorous review and redesign to reduce the impending high levels of congestion on local roads under the EIS plans. Such review must take into account North Sydney Council's Public Domain Strategy Stage 2 which proposes among

other things, Berry Street as two way bi-directional with widened footpaths and parking bays to facilitate increased public amenity.

OBJECTION No. 5 - AIR QUALITY. HUMAN HEALTH CONCERNS AND SOCIAL WELLBEING

I believe this government should be held directly responsible for compensation in respect of healthcare, employment benefit, expenses and any provable expenses consequential upon any cancer or respiratory disease caused by the potentially lethal ventilation stacks to any citizen affected by particulate fallout from these stacks. This should not be borne by the taxpayers who have strongly objected to this useless proposal from the very start, and who the government refuse to enter into any meaningful discussion with.

Precinct strongly objects to the EIS because the proposed tunnel is too long for the type of ventilation proposed and does not use international best practice in its tunnel ventilation and exhaust stack proposal;

Precinct strongly objects to the lack of a filtration system to remove fine particulate matter from the exhaust gases and

Precinct further strongly objects because the World Health Organisation has declared that outdoor pollution is already a leading environmental cause of cancer deaths.

Precinct vehemently objects to the EIS because cost and transport outcomes are being prioritised over human health outcomes. This is a serious failure of the proponent's duty of care for human health and well-being. If approved, the consenting authority (the Minister for Planning and Public Spaces) is equally culpable as is the government that exposes itself and its relevant ministers (Premier, Transport and the Cabinet) responsible, to the risk of future class action claims for damages.

Precinct strongly objects because the longitudinal ventilation system as proposed is known to be inadequate to control the in-tunnel pollution for tunnels longer than 4 km. For example, the pollution levels in the M5 tunnel beyond the airport have been a major concern for years sometimes making it necessary for the operator to ask motorists to wind up their car windows and turn on air conditioning. As a result, filtration is now being trialled. This is certain to be a significant problem in the WHT which is 7 km long.

Precinct strongly objects because the EIS ignores known problems and furthermore ignores the recommendation on filtration for new tunnels made by the 2018 Joint Parliamentary Inquiry into WestConnex.

Precinct strongly objects to the EIS because it will be more expensive (if not totally impractical) to retro-fit filtration equipment, than to incorporate it at the outset. Based on experience with the M5 tunnel and from overseas, we already know that filtration equipment will be needed.

Precinct strongly objects because the EIS presumes and has based its modelling that vehicles using the tunnels will be compliant with Euro6 fuel standards. The Australian government has refused to adopt that standard and therefore the pollution levels in the WHT will be higher than predicated in the EIS. Even if government was to adopt the Euro6 standard at some time in the future, we will not see any benefit for many years as time is given for all manufacturers to comply.

Precinct strongly objects because the proposed height of the stacks is far too low to allow pollution (gases and particulates) to disperse far and wide. There are too many tall

structures nearby that will result in eddies and downdrafts causing the pollutants to fall over nearby suburbs. This is wilfully negligent. Dispersal theory is predicated on high stacks in open areas such as where mineral and chemical plants are located and not in high density populated areas. At the very least, wind tunnel testing is warranted.

Precinct objects because there is no serious documented plan to manage the unintended consequences (noise, dust, particularly lack of community convenience etc.) during the construction phase. This is crucial given the large number of schools, hospitals, childcare and nursing facilities in the area. Whilst there are plenty of words of comfort in explanatory documents and at information sessions, none are evident in the EIS.

Precinct objects because although the detail provided in support of this project is extensive and highly technical in nature, it ultimately reaches the conclusion that the appropriate design of ventilation outlets would achieve the same outcomes as installing air filtrations systems and do not represent an unreasonable risk to the community. Even if one were to accept the evidence on face value, precautionary application of a filtration system, in line with various international practices, should be considered a prudent and more responsible approach to this issue. This would better satisfy the SEARs Air Quality objective '*to minimise air quality impacts to minimise risks to human health and environment to the greatest extent practicable*'. The additional cost associated with this would be negligible in the context of the total project cost.

Precinct urges the Consenting Authority and government to reject this proposal as exhibited and to insist on the installation of air filtration equipment if it is to go ahead at all.

Reasons for rejecting the EIS as exhibited are:

- Despite RMS claims in the EIS, exhaust fumes and microscopic particulates from vehicles using the tunnel and discharged via the exhaust stacks in close proximity to schools, day-care centres and thousands of homes will – **as confirmed by latest medical research and contrary to the outdated advice from the State Chief Medical Officer** - place our children and the elderly at unacceptable risk for many years, despite the promise of low emission electric cars (not heavy diesel trucks).
- North Sydney LGA has the highest concentration of schools and child-care centres anywhere in Australia.
- The federal government's refusal to adopt the highest international standard (Euro6) for vehicle emissions will exacerbate the emissions forecast for the tunnels which is modelled on that standard
- During high bushfire seasons (and government leaders are on record to say they will occur more frequently) air quality (AQI) in the LGA will go through the roof to catastrophic conditions above anything experienced recently.

Mitigation measures and Conditions of Approval in relation to Objection No.5:

As a Condition of Approval, it is suggested that the EIS includes as a minimum:

- Buildings and Equipment for the ventilation of the tunnel and delivery to exhaust stacks be placed underground such that all land temporarily resumed for construction is returned to its original state at the cost of the proponent.
- Fit air filtration equipment to all ventilation stacks. Use international best practice filtration techniques to ensure capture of all particulate matter generated by heavy trucks and diesel vehicles that are to be diverted off existing roads
- In addition to end of tunnel ventilation and filtration of exhaust gases, use cross ventilation and filtration of exhaust gases at two additional points along the length of the tunnels. All of this equipment must be placed underground with only exhaust stacks protruding above ground

- Ensure that exhaust stacks are raised to a level, proven by wind tunnel testing that will ensure that at ground level, zero additional particulates above existing background levels will be measurable within 200 metres of schools, hospitals, childcare facilities and nursing homes.
- Undertake sufficient background testing for at least 12 months and collaborate with all stakeholders before commencement of more detailed design.
- Ensure that in-tunnel and outside pollution is monitored continuously at all appropriate locations and all information is reported publicly every month for the life of the project. (much the same as Sydney Water is required to ensure that drinking water meets acceptable standards)
- A requirement that on days when in-tunnel air quality exceeds certain levels (to be mutually agreed and standardised) that the WHT will be closed to diesel trucks and similar vehicles.
- A requirement that the tunnel operator will be required to carry out remediation work at its cost in the event that maximum allowable pollution levels are exceeded for specified periods.

Denis Moore.