Cammeray Public School P&C

Project: SSI_8862

Introduction

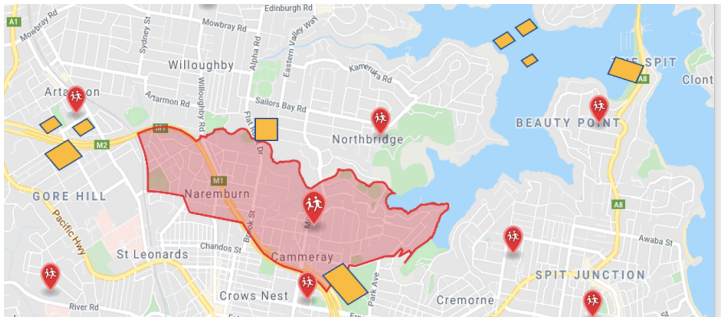
Cammeray Public Schools catchment sits between the Cammeray Golf Club site to the South, the Flat Rock Gully Construction Site to the West and the Middle Harbour construction works to the East. Our children will be impacted heavily by the construction works for the Western Harbour and Warringah Freeway (WHTWF) as covered in our previous submission and now the Beaches Link and Gore Hill Extension Proposal (BLGHE). These impacts do not appear equally distributed between the suburbs who will benefit and those who won't with a vast majority of works centred around Cammeray and Naremburn. The alignment of the proposed tunnel runs along Sydney's largest school zone, which includes multiple sports fields, and so the project disproportionally affects children which is the P&C's greatest concern.

Given the extent of impact and the poor cost/benefit evidenced within the EIS Cammeray Public School P&C objects to the project until such time as:

1) A full phase 2 contamination study is completed and published to accurately assess risk and decide if adequate mitigation is possible and cost effective
2) A comparative public transport review is completed that demonstrates the best option in terms of traffic, construction impact, health, biodiversity and sustainability.
3) A business case is published which evidences the travel time savings claimed and the congestion benefits assumed

Note: The EIS for this project was released just prior to Christmas when the school was winding down after a difficult Covid year and parents were taking an opportunity to go on holidays. Our P&C was not scheduled to meet until one week prior to the closing date of submissions – we appreciate the opportunity to send the submission in one week late however we have not been able to fully consider all aspects of the project in this time. The 12,000 pages are highly technical, and more time would have allowed for a far more informed response which would help protect our children in the future. Our requested extension letter submitted with 13 other impacted schools is attached. It is also noted that the P&C have not had any consultation regarding our previous submission to the WHTWF project and works in the area have commenced. We look forward to being contacted to discuss our concerns further.

Our school catchment in relation to proposed construction sites (orange):



Health and Safety Objections

Our objections with regard to Health and Safety concerns are as follows:

1. **Dust:** Dust risks have been assessed as moderate to high in the EIS for CPS, it's families and parks. Dust is known to negatively impact children's health and of particular concern is dust released from the Cammeray Golf Course Site, along the Warringah Freeway & at Flat Rock which will likely contain Silica and/or be contaminated. This was raised during the WHT EIS but the Beaches Link EIS confirms that contamination testing is not yet complete. The EIS also states that dust risks cannot be fully controlled. Our school, homes and sports fields (Cammeray Park, Tunks Park, Bicentennial Reserve) will likely be impacted limiting our children's ability to play sport during the 5 years of construction works for the WHT and an additional 2 years for BL. 4500m3 of spoil is allowed to be stockpiled outside of sheds at Cammeray & 500m3 outside at Flat Rock
2. **Contamination:** Has been identified as a moderate risk along the Warringah Freeway and high to moderate at Flat Rock Gully as an old landfill site is the proposed dive site. It is very concerning that testing has not been completed before the issuance of the EIS. Cammeray Public uses this area for various activities and many of our children live in and around it. There is concern that leachate may move down the valley toward Tunks Park which is noted in documents as a flood zone and has recently experienced sewage overflows. The Northside Storage Tunnel which holds 500 Million Litres of Sewage and Stormwater in the same area has not been assessed as part of the project, this may create contamination issues and further limitations on our sports fields in the area.
3. **Volume of Trucks on the Street:** During the WHT and WF project there will be 3045 vehicle movements at Cammeray Golf Course and various support sites. An additional 580 movements will take place from the Cammeray Site during Beaches Link. It is not yet clear where all these trucks will turn around and whether this can be done safely among children. There is a large schedule of dangerous goods to be transported. This is a considerable health and safety risk in residential areas around schools. There will also be 900 vehicle movements per day on Brook St, once of our key transport routes.
4. **Worker Parking and Movement:** The BLGHE requires a large volume of workers to move through the area to access local work sites incl. the Balgowlah site. There is concern about underassessed traffic implications on Military and surrounding roads. It is also clear from documents that not all workers can be housed on site for parking. Our streets are already at maximum capacity when it comes to parking.
5. **Noise:** The EIS demonstrates that noise will considerably impact Cammeray Public school and it's catchment (NCA 28.1, 29.1, 30.3, 31.1, 31.2, 31.3, 37.1 etc) The area behind the Golf Course and past Green Park will be noise affected throughout the project as will Bicentennial Reserve. Whether children will be able to safely hear and follow instructions while playing sport is unclear. Noise walls and attenuation is needed. Also, the EPA has raised an issue regarding works 24/7 in and around residential areas.
6. **Mental Health and Wellbeing:** The cumulative impacts (7 years) of living in a major construction zone is substantial for primary school students and their families. We are a densely populated residential area. The mental health of our families is a concern due to the scale and duration of works. This has been raised in the health assessment.

Health and Safety Objections Con't

7. Pollution: The double ventilation stack at Cammeray will not be filtered. The EIS demonstrates concerning impacts in terms of pollution for CPS and it's catchment. All receivers will experience PM2.5 levels well above national criteria when project opens. Concerningly our local parks will be impacted by increased pollution including Green Park, Cammeray Oval, St Leonard's Park and Bicentennial Reserve. Increased pollution has been modelled (2037) at various community receptor points within our catchment as follows: CR17 KU Pre-School Green Park (CR17)- increased 24hr mean PM 10 & 24hr PM 2.5; CR18 Cammeray Public School (CR18)-increase in 1 hr NO2 & Annual Mean 2.5; CR25 Artarmon Sues Childcare: (Closest point to Willoughby Leisure Centre/ Bicentennial Reserve)- Max 24hr PM2.5 increases which represents the largest increase of 24hr PM2.5 across the project. It is disappointing that a specific CR point was not modelled at Bicentennial & Tunks Parks & local background data was not used ie) Naremburn or Artarmon. Children are most susceptible to pollution, particularly at higher respiration rates. The stacks have no emergency ventilation outlets and so fumes from any high pollution events or emergencies will be dispersed over schools in the area. The EIS confirms that the project will contribute to increased air pollution overall but relies on fuel efficiencies to offset this increase (see Table 8-10). These efficiencies are not yet legislated and a review has been delayed - the project will open before fuel efficiencies are able to be realised. In addition, the sensitivity analysis for CPS demonstrates increased pollution at lower temperatures. Also, the Chief Scientist has raised a question as to whether surface road traffic and induced demand have been sufficiently included in the air quality analysis. Given the evidence and uncertainty the precautionary principal should be employed in an area with such a high density of children. *A letter is attached from the Sydney Children's Hospital regarding the concerns around pollution*

8. Pollution at Height: Cammeray Public School sits at height above the double stacks, and it is not clear if a sensitivity analysis has been completed to assess the impact of this. The EIS identifies buildings 300m away will receive an unacceptable risk of pollution and that more work needs to be done to establish risk at height over greater distances. We would like clarification of Cammeray Public Schools additional pollution risk given it's relative height to the stack.

9. Substratum Acquisition and Property Damage: the land under houses will be acquired approx. 50mtrs either side of tunnelling, ventilation shafts and other underground works. The EIS does not make clear where the substratum will occur and there is no compensation. In areas of high drawdown it is not clear if damage to these properties will be covered.

10. Operational Noise: our noise levels are set to increase after the project opens (a testament to increased local traffic) many buildings are eligible for noise attenuation however this needs to be made a condition of approval. Noise mitigation should be in keeping with heritage values.

11. Visual Amenity: the stack can be seen from a long distance (see map below). Most of Cammeray will be able to see the stack once built which degrades visual amenity and may affect house prices creating financial stress at a difficult time for many families post Covid.

12**. The rights of children:** children have the right to the "enjoyment of the highest attainable standard of health". It is evident that many aspects of this project limit this right in school zones.

Traffic and Congestion

Our objections with regard to Traffic and Congestion are as follows:

During Construction

1. **Volume of Trucks on the Street:** The volume of trucks is particularly concerning for the Brook St corridor as many children cross this area to and from school via active transport, bus and car. The access to the area is already difficult due to previous road projects which have fragmented the school catchment zone ie) Warringah Freeway and Gore Hill Expressway works
2. **Local Traffic Impacts:** The EIS identifies intersection delays and changed traffic conditions during construction. There is also a concern about traffic diverting through Northbridge and along Miller St to avoid the Flat Rock Drive construction site and lights. The area is already very congested before and after school – the delay to cross or access Miller St is a significant issue during these times.

Once Open (Operational)

1. **Trip times**: The EIS demonstrates that trip times to the Beaches will not improve substantially for Cammeray families as the only on and off ramps are via Berry St and Artarmon. The trip time to Dee Why and Manly will be roughly the same as today.
2. **Project justification:** The traffic levels on Military Rd do not reduce from today's levels as a result of the project which was a main aim of the project. The 10% reduction claim is based on a future predicted growth in traffic rather than today's level so there are no tangible improvements to the local area.
3. **Increased Traffic:** The EIS confirms that Vehicle Kilometres travelled will increase overall due to the project creating a higher reliance on car travel. The project also demonstrates that there will be more than 20% increase in traffic (current growth rate plus induced demand) delivered to the Northern Beaches as a result of both the project and failure to consider alternative options. No public transport alternatives, recommended by planners and engineers, have been compared to a toll road.
4. **Toll Road avoidance and other inputs:** the EIS confirms that the project is a toll road however toll avoidance scenarios have not been fully scoped therefore the impact on local roads is unknown. The impact of the B-Line, new Metro and changed work habits/ population shifts post Covid have also not been considered.
5. **Reduced access to Warringah Freeway ramps** The school continues to have a concern about the changed traffic conditions as a result of ramp changes to the freeway. The EIS demonstrates that there will be higher traffic levels around the Warringah Freeway as a result of the project. Of particular concern is the impact on Amherst St & Miller St which goes from a B level of service to a D and the Amherst St & West St intersection which goes from an A to an F. These are both key intersections for school traffic leaving and accessing the school from Cammeray and Naremburn.

Climate, Sustainability and Environment

We object to the project due the poor outcomes demonstrated in the EIS with regard to:

Sustainability: is a key unit of learning across many of our subjects and we have an active sustainability club at the school, these projects do not present as a sustainable transport option as evidenced by the following:

Waste: The EIS states that 3 Million+ Tonnes will be produced with 153,000 Tonnes of waste dumped out to sea. 10,000 m3 of contaminated spoil will be barged out past beaches. The dredging of Middle Harbour puts our Marine Ecology at risk and the location of the dive site in an old area of landfill creates the need to truck contaminated spoil through residential areas and school zones. This risk would be avoided if an alternate location was chosen.

Water Use and Wastewater: The project will use more than 1M Litres of water per day (a majority potable). Wastewater (treated) is to be discharged into Willoughby and Flat Rock Creeks. The EIS identifies a high risk to down street waterways. These creeks already suffer from pollution and are classified as sensitive fish breading environments so any change in water quality could have a significant impact. The creeks regularly flood Tunks and Primrose Parks which will create a greater risk to children should contaminants be mobilised through flood waters or discharge.

Green Space: Overall 20.9Ha of green space will be lost due to the project in areas where green spaces are already under pressure due to population and pollution.

Water Availability: the dam at Cammeray will be lost during the project which puts parks (already drought impacted) as risk as it is the major water supply for Cammeray Oval, St Leonards Park, Tunks Park. These are Cammeray Public Schools main sports fields and weekend sport locations. The Beaches Link project also creates a substantial amount of drawdown which will impact the ability of parks i.e. Bicentennial and bushland to retain water –further reducing children's access to fields. Due to urban densification our sports fields are already at capacity across the area and this issue is a key point of objection.

Tree Canopy and Urban Heating: Over 3000 Trees will be removed as part of the project in addition to significant losses from the WHTFU project– this will significantly impact our urban heating and biodiversity.

Increased Emissions: The EIS confirms that this project will produce more emissions above and beyond doing nothing. The emissions produced when compared to the Metro project are also higher both during and after construction. When benchmarked against a public transport alternative this project is not the most sustainable option.

Threatened Species: Our children learn in class about our precious flora and fauna however this project puts critical habitats, wildlife corridors, waterways and places 23 threatened species at further risk including little penguins, powerful owls and endangered seahorses.

Loss of Heritage: The alignment of the tunnels cuts through several heritage areas in the CPS catchment and the EIS confirms that it will also impact on Aboriginal sites. The area has already suffered great deal of loss to heritage due to historical mismanagement and development. Our school is proud to be named after the Cammeraygal – all remaining heritage should be carefully preserved for future generations - construction should take place away from these sites.

Mitigations

We object to the project and ask that:

Before Approval:

1. Reconsider the route to place the dive site away from contaminated landfill, sewage facilities and flood prone areas and stacks away from our largest school zone
2. Complete a full Phase 2 Contamination study to quantify the risks at Cammeray Golf Course, Warringah Freeway, Flat Rock and Middle Harbour and establish the feasibility and affordability of effective mitigation measures before making decisions
3. Consider public transport alternatives to a toll road to provide for intergenerational equity, adherence to our climate commitments & the protection of biodiversity
4. Reconsider the Immersed Tube design of the harbour crossing to avoid dredging and reduce impacts on the harbour and the potential for contamination events
5. Provide some clear benefits for the children of the area after a long period of construction ie) a joined-up public/ active transport network between Willoughby and North Sydney, more green space, a biodiversity and local heritage education program, a properly sealed/ air-conditioned hall and classrooms.

If Approved, mandate conditions of approval that:

1. Provide for traffic marshalling at key intersections before and after school during construction and better intersection performance/ local traffic flows operationally
2. Provide an alert (subscriber) style air quality monitor at Cammeray Oval and Bicentennial Reserve and the school. These should be permanent given the growth of traffic expected over time and a lack of surety around fuel emission improvements
3. Provide for surface & ground water quality monitoring and alerts for Tunks Park. Ensure the tunnel is fully lined to minimise drawdown
4. Mandate all spoil is to be kept inside and surveillance to ensure compliance
5. Install sound walls at Cammeray Oval and Flat Rock/Bicentennial Reserve
6. Provide an over or underpass of Brook St for safe active transport access and/or stage the project so spoil trucks can remove spoil underground to the Freeway rather than use the school's local transport corridors.
7. Filter or treat pollution emitted from stacks or provide all areas of the school with HEPA filtered air-conditioning as a condition. Include a review of window efficiency and the ability of demountable classrooms and our open style hall to efficiently keep out pollutants and be sustainably air conditioned. Review pre-schools and homes in the area where children are living to ensure their health and safety.
8. Ensure families are properly consulted and fairly compensated for damage and substratum acquisition to minimise stress and uncertainty
9. Ensure Cammeray P&C is consulted with regarding these objections and as part of traffic planning and the air quality committee given the considerable risks presented and the complexity of the catchment area and our transport routes.

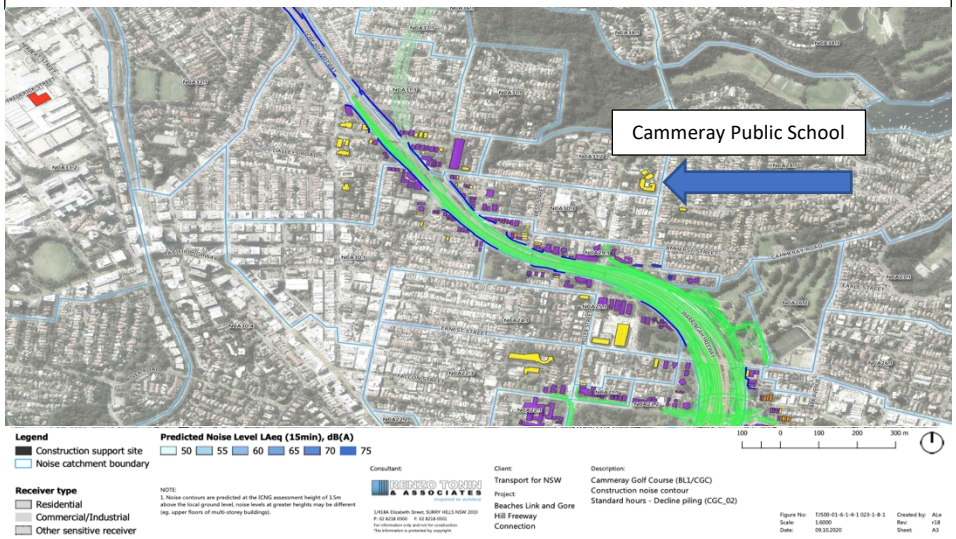
Cammeray Public School P&C Position

"Following review of the Beaches Link and Gore Hill Extension EIS, Cammeray Public School P&C formally objects to the project as presented. The basis of our objection, in summary, is the clear risk to children's/ resident's health and safety, the use of incomplete or outdated data, the lack of business case and that no comparative analysis has been done with regard to public transport alternatives. The documentation makes it clear that impacts during construction from dust, diesel fumes, truck movements and noise (especially at night-time) place children's health at unreasonable risk and that these risks will not always be satisfactorily mitigated. Possible impacts on large numbers of residential properties will cause our families undue stress and the placement of major construction sites next to our key green spaces will inhibit our children's access to sport for up to 7 years. Long term, the EIS demonstrates that traffic and pollution in and around the school, our playing fields and homes will increase. The project has poor sustainability and climate outcomes, which contradicts what our children are learning at school, and there is insufficient evidence presented to show a positive cost/benefit overall. In light of considerable risk we would ask that the Department of Planning ask for a re-issue of the EIS for public consultation containing a Phase 2 Contamination Study, a public transport comparative analysis (as per the SEARS requirements) and a business case that clearly evidences the claims made regarding the projects benefits."

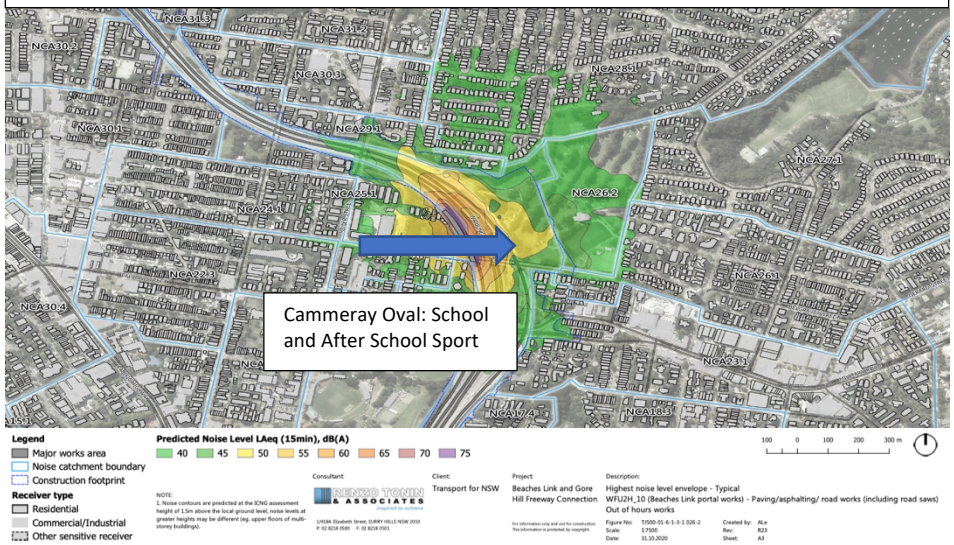
Cammeray Public School P&C has not made any reportable political donations.

Appendix A: Noise Examples

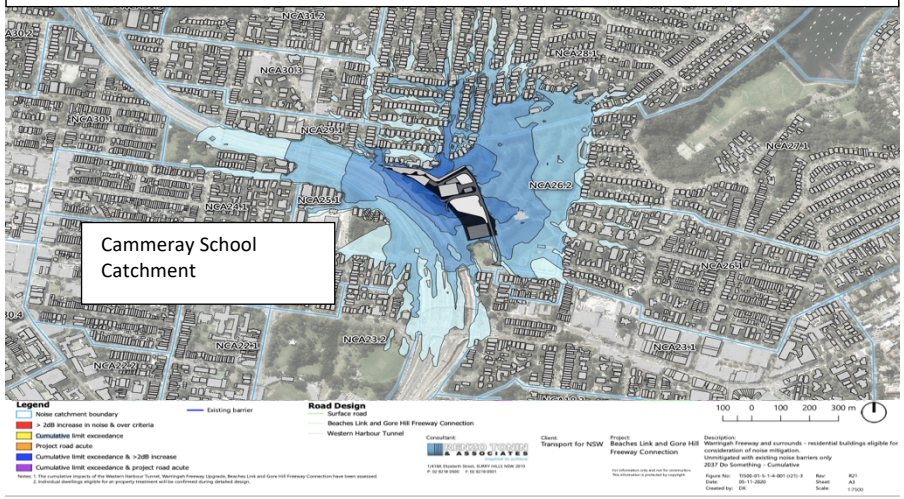
Appendix G Noise and Vibration Part 2, Annexure N; Receiver building identified for additional operational road traffic noise mitigation with existing noise barriers only (Once built)



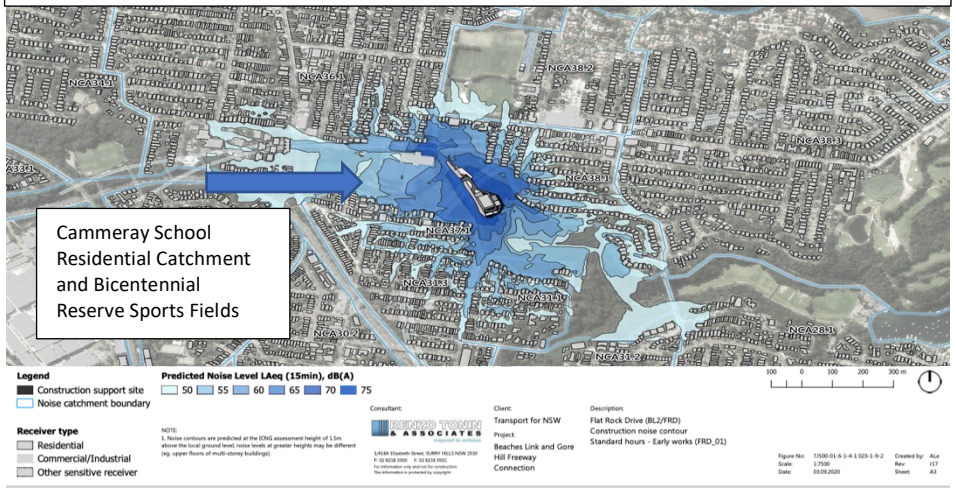
Appendix G Noise and Vibration Part 2, Noise from Out of Hours Road Works Cammeray Golf Course Site



Residential Buildings Eligible for Noise Mitigation Consideration - Construction



Appendix G Noise and Vibration Part 2, Noise from Flat Rock Gully Site Establishmnet



Appendix B: Air Quality Examples

Annual Contour Plot showing dispersion of NOx pollutant over the school catchment area

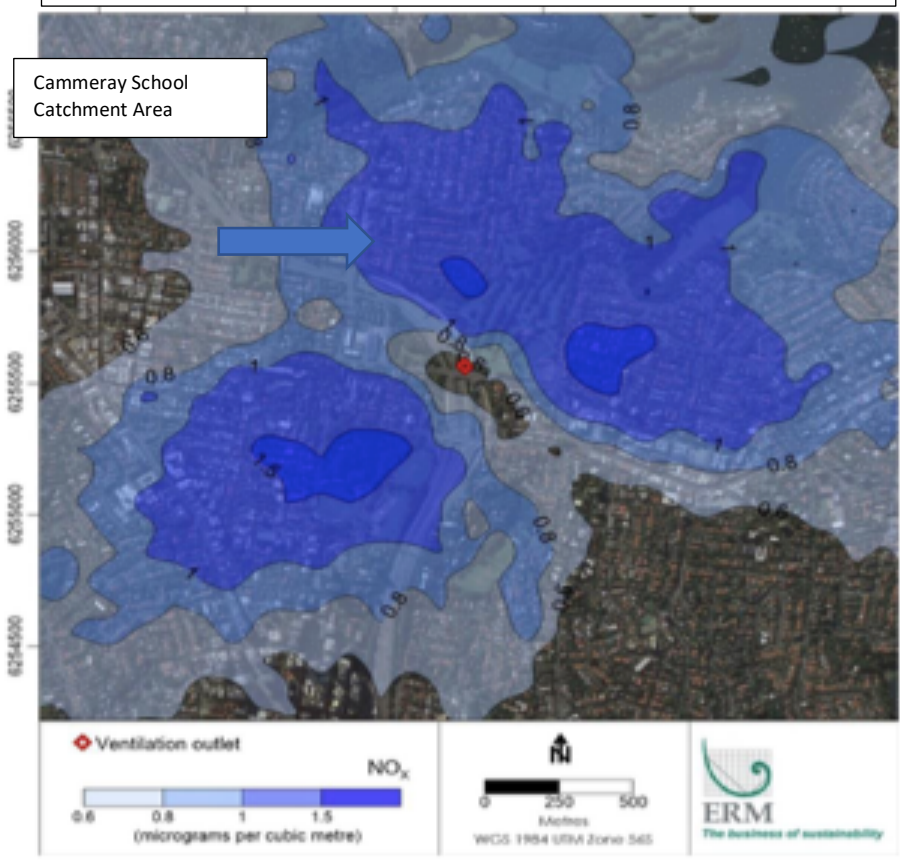


Figure I-15 Contour plot of change in maximum 1-hour mean NO_2 concentration in the 2027 cumulative scenario (all sources, 2027-DSC

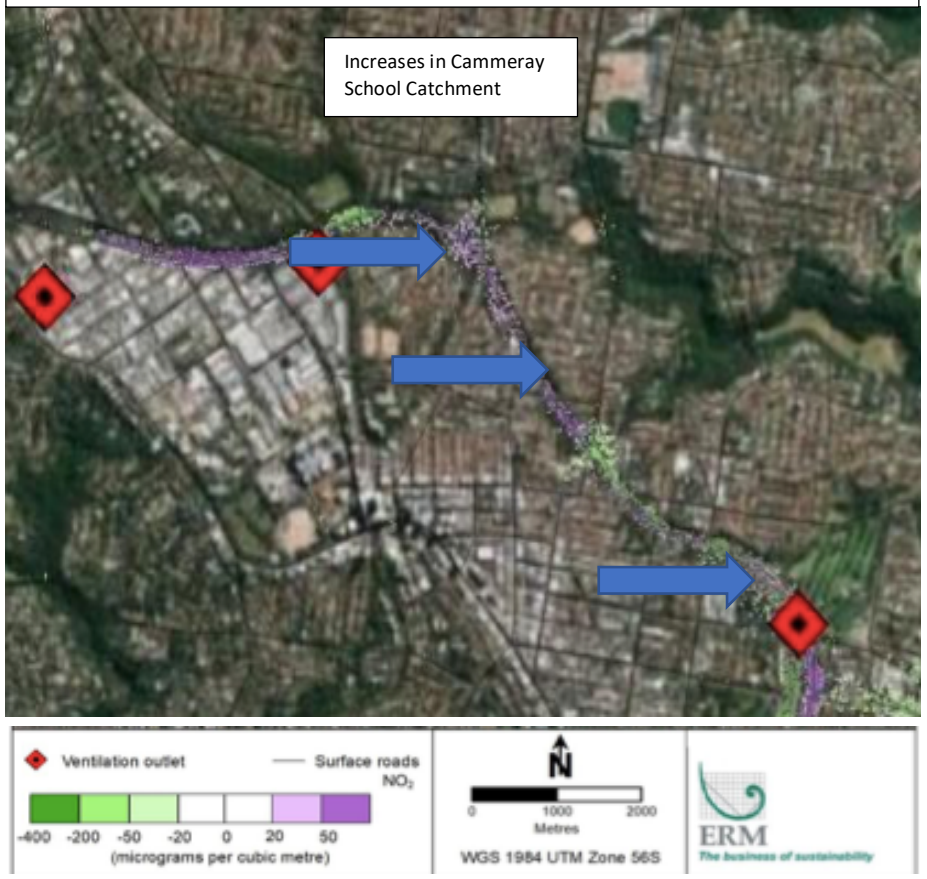


Figure J-8 Local contour plot of annual mean NO_x for Warringah Freeway in 2027-DSC scenario

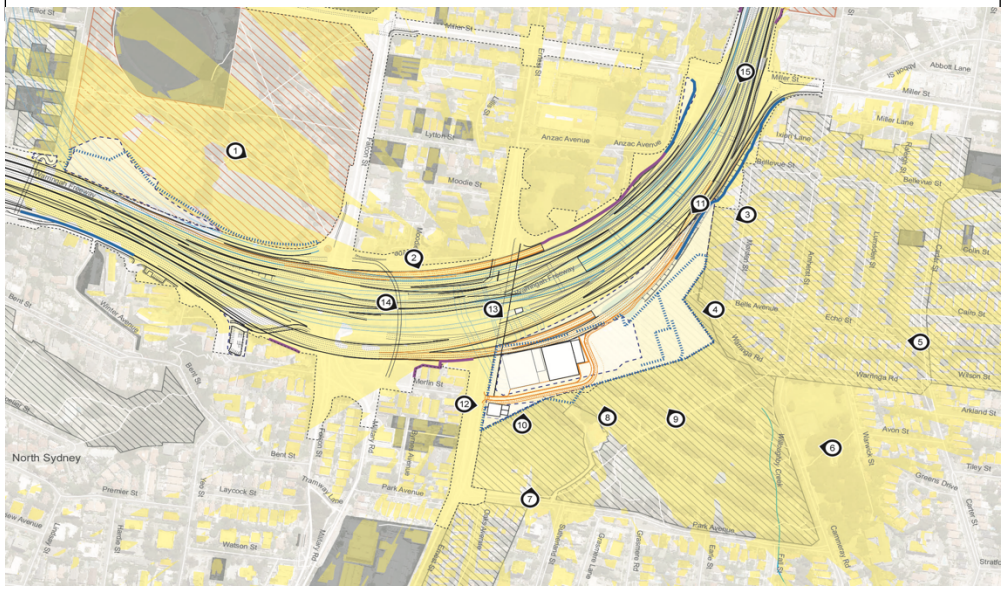
Table 8-66 Results of sensitivity tests for ventilation outlet temperature – percentage changes

ID	Name	Change in $PM_{2.5}$ relative to central estimate (%)								
		HT01 (15°C)			HT02 (25°C)*			HT03 (35°C)		
		Max 1h	Max 24h	Annual Average				Max 1h	Max 24h	Annual average
CR08	Wenona School	9%	20%	31%				0%	2%	-18%
CR10	Neutral Bay Public School	-2%	28%	40%				-10%	-21%	-22%
CR11	Neutral Bay Medical Centre	10%	20%	24%				-29%	-28%	-32%
CR17	KU Cammeray Preschool	4%	18%	24%				-12%	-6%	-12%
CR18	Cammeray Public School	18%	-4%	8%				-3%	-14%	-20%

*No values presented for 25°C as the percentage change is compared against this central estimate.

There is a significant increase in pollution at lower temperatures

Appendix V: UDLCVIA. Stack Field of Visual Influence (Yellow). Cammeray Public School and the majority of it's catchment will see the stack once built. Many Naremburn families will be able to see the Artarmon Stack.



Cammeray Public School

Reductions in emissions are based on external factors which are not yet legislated - this presents a significant risk that pollution will be higher than modelled.

Table 8-10 Percentage changes in total traffic emissions in the Beaches Link GRAL domain

Scenario comparison	Change in total emissions (%)				
	CO	NO_X	PM_{10}	$PM_{2.5}$	THC
Underlying changes in emissions with time[a]					
2027-DM vs 2016-BY	-55.4%	-46.1%	-10.4%	-19.7%	-56.7%
2037-DM vs 2016-BY	-65.9%	-51.8%	-9.9%	-21.1 %	-67.2%
Changes due to the project in a given year					
2027-DS(BL) vs 2027-DM	-4.0%	-4.8%	-4.6%	-4.6%	-5.2%
2027-DSC vs 2027-DM	+4.7%	+1.3%	+0.8%	+1.0%	-3.0%
2037-DS(BL) vs 2037-DM	-0.2%	+0.1%	+0.2%	+0.3%	-2.5%
2037-DSC vs 2037-DM	+8.4%	+6.5%	+7.1%	+7.1%	0.0%

(a) The 2027-DM and 2037-DM scenarios include the WestConnex M4 and WestConnex M8 projects. The 2016-BY scenario does not.

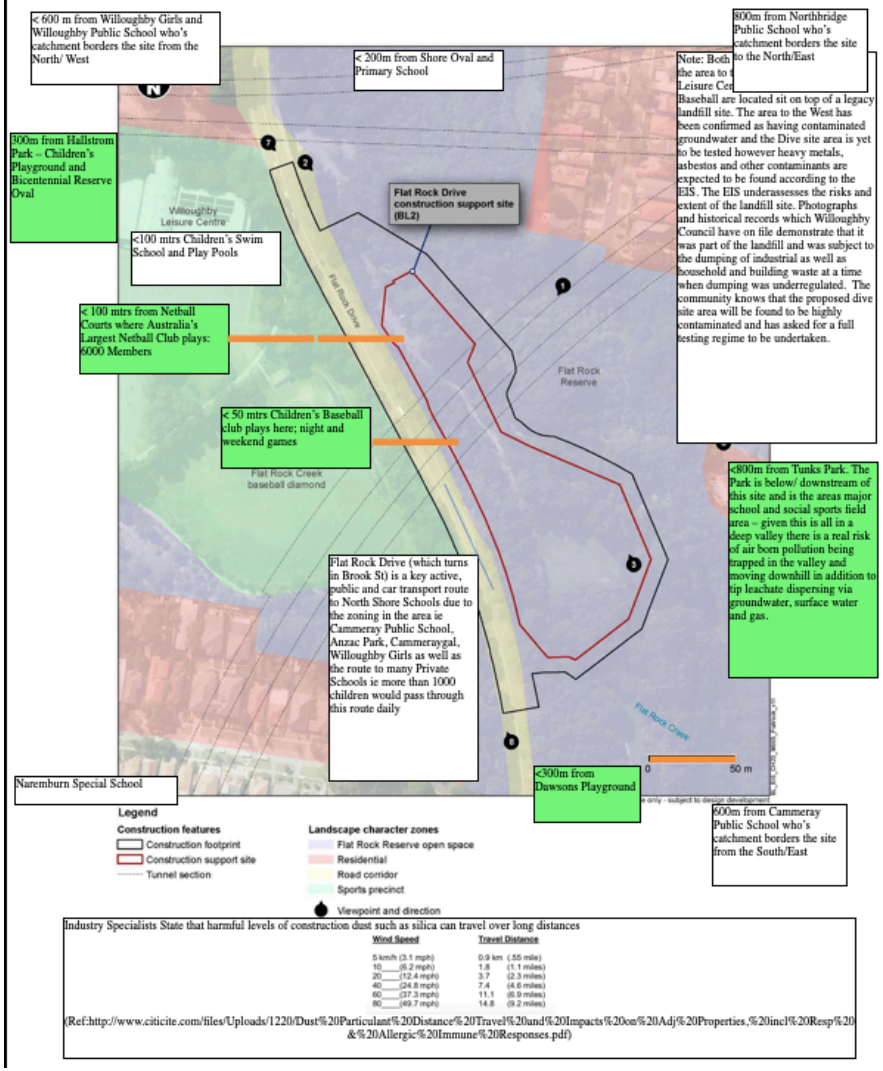
Comparing the 'Do something 2027' scenario with the 'Do minimum 2027' scenario, emissions of CO, NO_X, PM_{10}, $PM_{2.5}$ and THC decreased by around four to five per cent. In 2037, emissions of all pollutants remained relatively unchanged, with the exception of THC which decreased by 2.5 per cent.

For the 'Do something cumulative 2027' scenario, emissions of CO increased relative to the 'Do minimum 2027' scenario by 4.7 per cent, emissions of NO_X, PM_{10} and $PM_{2.5}$ increased by 0.8 to 1.3 per cent, and emissions of THC decreased by 3.0 per cent. In the 'Do something cumulative 2037' scenario the emissions of all modelled pollutants increased, with the exception of THC which remained unchanged.

The overall changes in emissions associated with the project in a given future scenario year (2027 or 2037) would be smaller than the underlying reductions in emissions from the traffic on the network between 2016 and the scenario year as a result of improvements in emission-control technology. Although there are some differences between the definitions of the 'Base case' and 'Do minimum' scenarios, between 2016 and 2027 the total emissions of CO, NO_X and THC from the traffic on the road network are predicted to decrease by between 46 and 57 per cent. Between 2016 and 2037 the reductions range from 52 to 67 per cent. For PM_{10} and $PM_{2.5}$, the underlying reductions are smaller. This is because there is currently no anticipated regulation of non-exhaust particles, which form a substantial fraction of the total. In the case of PM_{10}, the underlying reductions in emissions are similar

Crystalline Silica and Contaminated Dust Risks and Proximity to Children

Flat Rock Gully Site



Industry Specialists State that harmful levels of construction dust such as silica can travel over long distances

Wind Speed	Travel Distance
5 km/h (3.1 mph)	0.9 km (.55 mile)
10 (6.2 mph)	1.8 (1.1 miles)
20 (12.4 mph)	3.7 (2.3 miles)
40 (24.8 mph)	7.4 (4.6 miles)
60 (37.3 mph)	11.1 (6.9 miles)
80 (49.7 mph)	14.8 (9.2 miles)

(Ref:http://www.citicite.com/files/Uploads/1220/Dust%20Particulant%20Distance%20Travel%20und%20Impacts%20on%20Adj%20Properties,%20incl%20Resp%20&%20Allergic%20Immune%20Responses.pdf)

Crystalline Silica and Contaminated Dust Risks and Proximity to Children – Cammeray Major Construction Site for Beaches Link

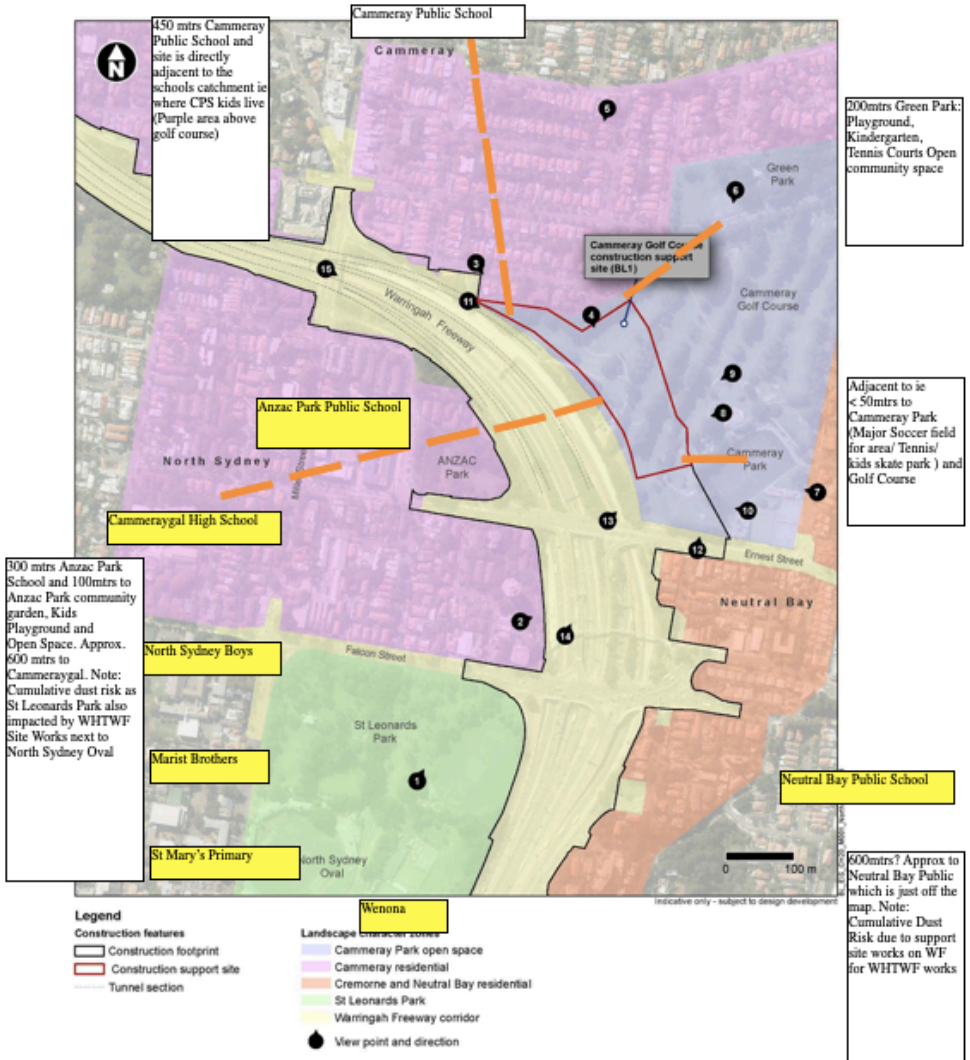


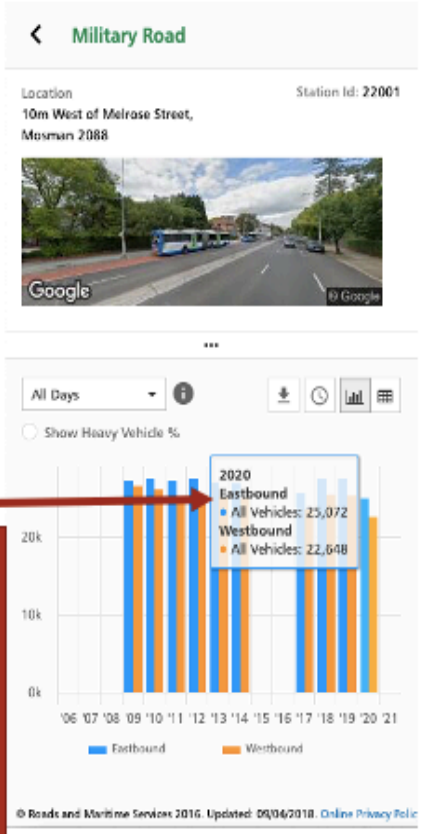
Figure 22-5 North Sydney precinct landscape character zones and viewpoints

Traffic Volumes on Military Rd stay at today's level after building the tunnel

DSC = do something cumulative ie) WHT and BL

Table 8-19 Average weekday two-way traffic volume on selected roads

Road	Average weekday two-way traffic volume by scenario (vehicles per day)					
	2027-DM	2027-DS(BL)	2027-DSC	2037-DM	2037-DS(BL)	2037-DSC
ANZAC Bridge	176,292	176,425	159,435	185,214	185,696	166,552
Western Distributor, near Erskine Street	108,816	111,759	66,892	117,552	121,318	73,750
Sydney Harbour Bridge	203,452	214,061	166,494	220,514	231,959	183,838
Warringah Freeway, near North Sydney Oval	277,916	286,494	231,354	296,689	309,246	251,501
Gore Hill Freeway, near Artarmon Reserve	138,315	134,156	138,111	148,859	145,875	154,880
Eastern Distributor tunnel (northbound)	45,623	45,817	33,788	50,585	50,640	38,744
Military Road, near Spofforth Street	66,391	48,914	47,814	70,602	52,254	50,561
Manly Road, near Avona Crescent	71,545	41,660	43,413	76,851	49,247	46,937
Wakehurst Parkway, near Yarraman Avenue	20,989	48,325	50,567	23,692	53,611	56,635
Warringah Road, near Bangalla Place	82,949	62,024	61,507	87,038	66,566	65,764



The traffic numbers in future AFTER Beaches Link is built are the same as current numbers and building the tunnel only achieves a 10% decrease on FUTURE predicted traffic

Project Need/ Justification Questions?