

## Dear Parents and Citizens of CPS,

We understand that, like us, you are concerned about the health and safety of your family.

In October 2017, the RMS published the scope of proposed road projects which have the potential to directly impact our school and our health and safety over the next 6 years. Funding for these projects has been announced as part of the recent state budget and the planning and approval process is well underway.

A group of concerned parents, with various backgrounds and professional qualifications, have reviewed the scoping documents, scientific papers and relevant newspaper articles to put together the following information report. We hope this report helps you to understand the range of impacts specific to our school catchment of Cammeray and Naremburn (and the surrounding suburbs).

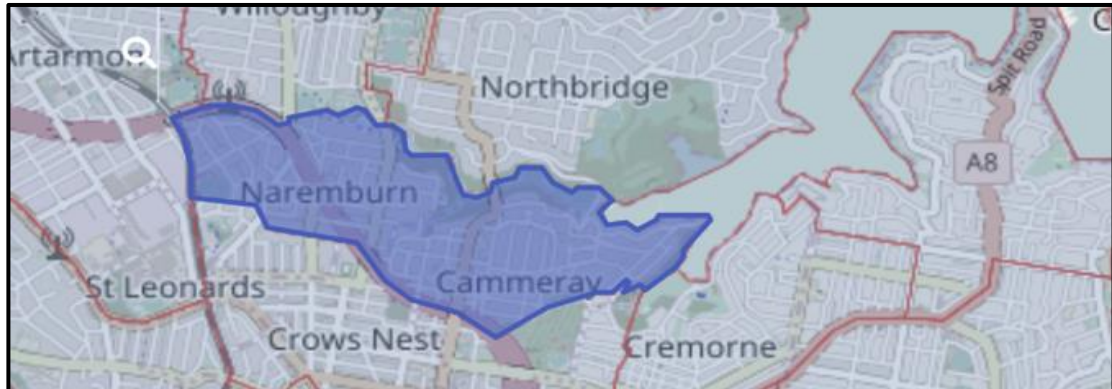
You might like to read the whole report or simply click on the circle below to go to the issue you are most concerned about.



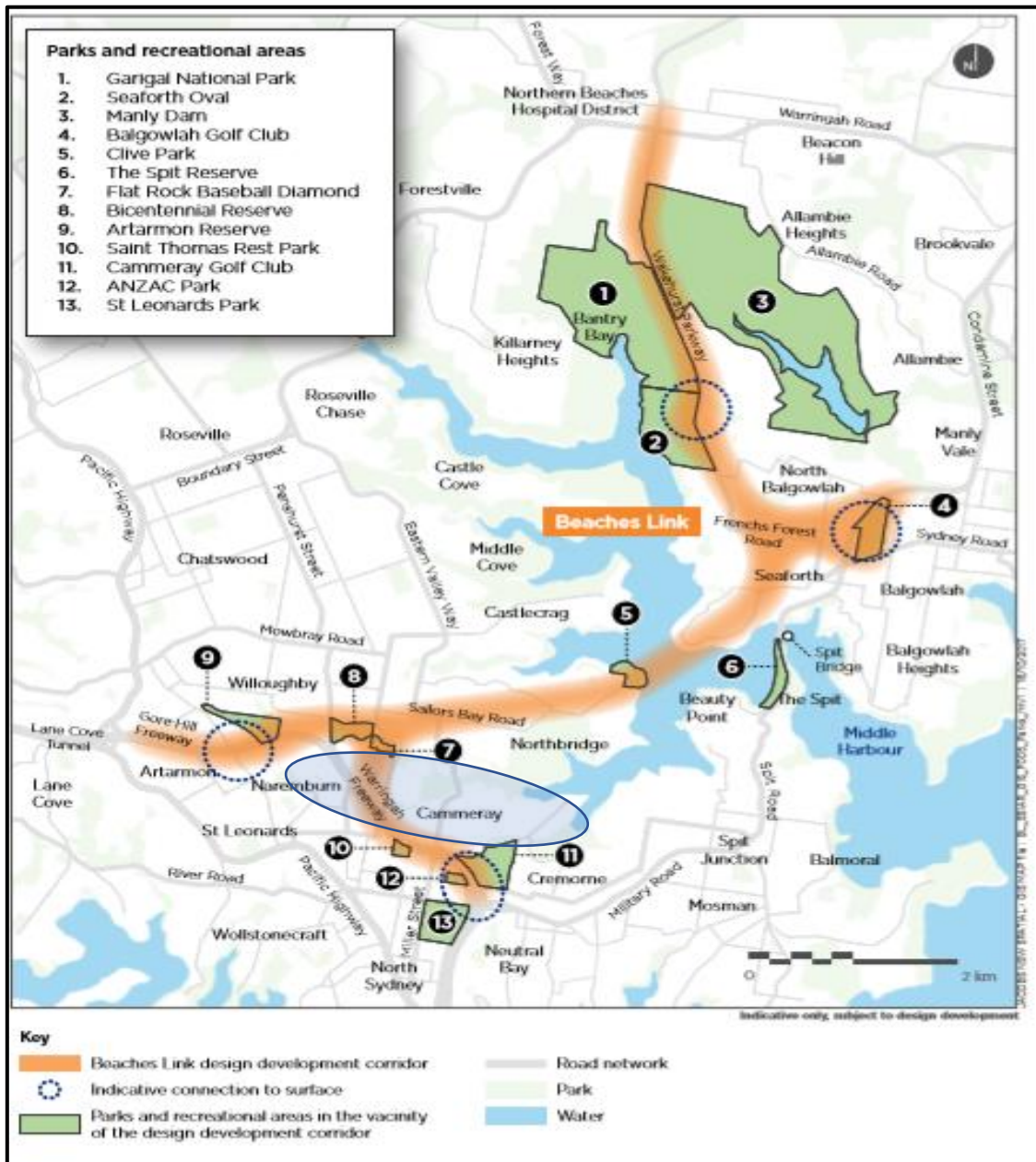
Pictures: Getty Images imbedded

## Background

### Our Cammeray Public School Catchment Zone:



### Proposed Northern Beaches Tunnel Route:



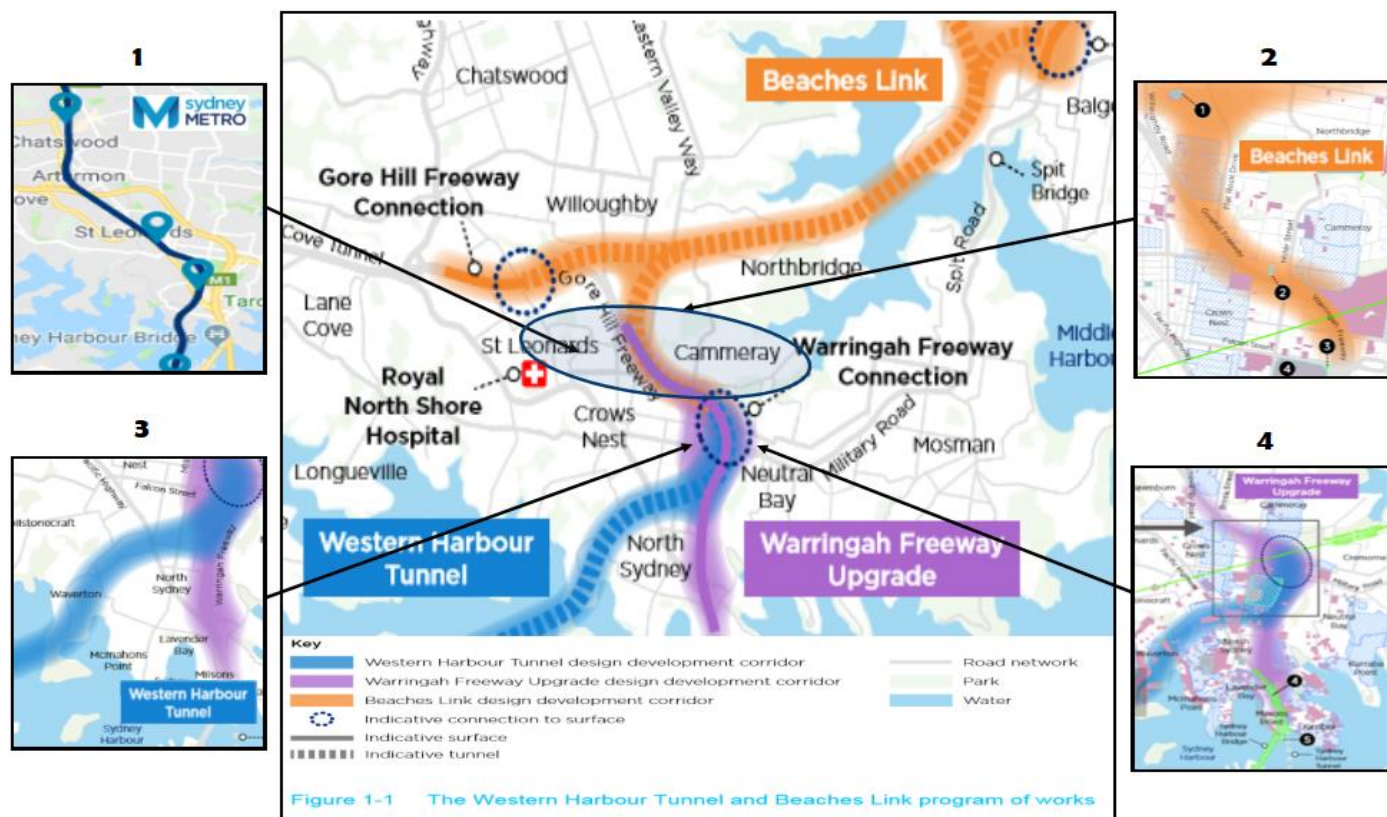


## Snapshot of All Upcoming Projects:

	Beaches Link and Gore Hill Freeway	Western Harbour Tunnel and Warringah Freeway Upgrade	Sydney Metro; City and Southwest project
<b>Time Line</b>	5-6 years (2019-2025?)	5-6 years (2019-2025?)	Commenced - 2024
<b>Kms</b>	7.5km tolled tunnel	7 km tolled tunnel	Twin 12.5km Metro Tunnels
<b>Cost</b>	Combined estimate \$7.2 - \$14 Billion <sup>1 2</sup>		\$11.5-12.5 Billion <sup>3</sup>
<b>Operations</b>	24hrs/ 7 days	24hrs/ 7 days	24/7days with rest periods
<b>Inclusions in Area</b>	Ventilation Stacks, portals	Ventilation Stacks/ Portals, <b>Major</b> Expressway Widening	Stations, portals, substation (Artarmon)
<b>Portals</b>	Cammeray and Artarmon	Cammeray and Inner West	Chatswood
<b>Route</b>	Cammeray, under Naremburn, Artarmon and Northbridge to Seaforth	Harbour tunnel from Rozelle, under Waverton, St Leonards to Cammeray.	Chatswood to Victoria Cross (North Sydney), under harbour and to Barangaroo etc
<b>Property Acquisitions</b>	Yes - TBA	Yes – including Cammeray/ Naremburn along widening	n/a
<b>Spoil/ Truck Sites in Area</b>	Flat Rock Baseball Diamond. TBC-St Leonards Park, Base Ball Diamond at Flat Rock, Clive Park, Artarmon Park, Cammeray and Anzac Park.	TBS – Anzac Park, Cammeray Oval, St Leonards Park, Flat Rock Baseball Diamond.	Chatswood, by barge on harbour, Blues Point.

## Map of all Coinciding Projects

(per RMS Scoping Documents and Metro Interactive Map):



<sup>1</sup> <https://www.9news.com.au/national/2017/11/13/17/42/new-harbour-tunnel-estimated-to-cost-7-2b>

<sup>2</sup> <http://mobile.abc.net.au/news/2017-07-18/sydney-tunnels-14-billion-price-tag-revealed/8717544?pfmredir=sm>

<sup>3</sup> <https://www.sydneymetro.info/article/big-dig-new-harbour-metro-crossing-underway>

## Issue 1:

### Traffic, Parking and Safety During and After Construction



Tunnel Portals Westconnex Facebook Page

The major hub for all three projects will be built at Cammeray with another portal/ dive site at Artarmon (next to Artarmon Oval). The scope states that 24hr/ 7 day per week operations (BGLF 4.4.3 and 5.4.2) will be in place with heavy equipment in use over a 5 to 6 year period throughout residential areas. Residents and councils in other areas where tunnels are currently being built have experienced 24/7 heavy vehicle movements, excessive dust and major parking issues during construction.<sup>4</sup> The Flat Rock Baseball Diamond off Brook St has been earmarked as a potential spoil and preparation site which will require continuous truck movement along Brook St/ Flat Rock Drive to the portal at Cammeray. As this is a key thoroughfare for the community, disruption to traffic flow at Brook St would create traffic diversion along Sailors Bay Rd and Miller St, past the school over the life of the project. Traffic congestion around Miller/Falcon St, Northbridge and Artarmon would also be expected to increase considerably due to spoil sites, heavy vehicle movements, preparation sites and construction.

The exact number of truck movements at spoil and preparation sites are not mentioned within the scoping documents, however Northconnex residents impacted by a similar tunnel construction, are reporting **70 heavy vehicle**<sup>5</sup> movements per hour and other reports have quoted 5000 per day. The scopes set out clearly that there will be significant number of large truck movements and disruption (BGLF 4.4.3). Our area has already been impacted by increasing commuter traffic and parking issues with many streets regularly “parked out” by commuters using nearby transport hubs. During construction we would experience considerable increased traffic flow and parking issues due to hundreds of heavy vehicles and construction workers being parked throughout the area. Other suburbs have experienced large articulated trucks idling in local streets waiting to be called up for spoil removal which adds to the safety and pollution risks. Very sadly a disabled child has died as a result of these truck movements during the Northconnex construction (reference not included out of respect).



Spoil Trucks WestConnex Facebook Page

<sup>4</sup> [https://www.johaylen.com/m4\\_m5\\_westconnex\\_eis\\_submission](https://www.johaylen.com/m4_m5_westconnex_eis_submission)

<sup>5</sup> <https://www.dailytelegraph.com.au/newslocal/hornsby-advocate/pennant-hills-rd-traffic-set-to-get-thousands-more-trucks-to-build-a-tunnel-to-take-trucks-off-the-road/news-story/bdb7db7c257ac4a94a0a5ed7c918cc5c>



**Children must cross busy roads to access the school.** Many of our students must cross Brook and Miller St to access school – the risk of children/ families being harmed on the way to and from school would be increased by volume of traffic and a continuous flow of trucks who are under significant time pressure.<sup>6</sup> Breathing in dust from spoil movements and truck emissions would also be a major health concern for those walking to and from school (see Health Section ). It is not clear how the Naremburn Bus route would operate. The BBFL Scope states that there will be:

**“Potential impacts to road users, including buses, pedestrians and cyclists during construction due to temporary road arrangements or the close proximity of construction activities to normal traffic”**

The Northern Beaches tunnel scope states that one of the benefits to Northern Beaches Commuters is connectivity, which encourages more cars onto the road, however there has been no provision made for additional parking in the city or elsewhere. Our suburbs are already being overwhelmed with commuters and parking is very hard to find around the school and at home. Without additional commuter parking in the city, commuters will increasingly backflow into our suburbs. Studies have shown that more road tunnels and expressways increase vehicle use and traffic around portals. Some international cities have moved to remove expressways into the city areas to discourage road use and encourage public transport usage. The push to add tunnels to Sydney to relieve congestion appears to be at odds with planning priorities in other major cities around the world.

**“Increasing roads to address congestion is the opposite of what large cities around the world are doing as research clearly shows that more roads equal more cars”.**

Clover Moore in her Lord Mayor’s Minute of 26 June 2017 cited London Mayor Sadiq Khan who launched the city’s new transport strategy saying:

**“London’s population is set to increase beyond 10 million, our future health and prosperity is more and more dependent on us reducing our reliance on cars.”**



Trucks lined up along Strathallen Avenue, Northbridge  
June 2018 thought to be servicing Metro Dive site

<sup>6</sup> <https://www.smh.com.au/national/nsw/nsw-truck-deaths-increase-by-86-per-cent-in-12-months-20171221-h08ocu.html>

## Issue 2:

### Loss of Green Spaces and Playing Fields



Artist Impression of 3 stacks to be built in  
Rozelle from report to gov't on Stage 3

Our green spaces are already under strain due to the need to serve the new high-density developments at St Leonards and Crows Nest. The project scope indicates that Artarmon Reserve and Clive Park will be unusable during (and for a period after) construction. Flat Rock Gully also stands to be impacted significantly if a spoil site goes ahead on the Baseball Diamond – the risk of contamination and heavy vehicle movements will likely make the Netball Courts and pathways around Flat Rock unsafe to use and any run off may affect the bush tracks, waterways and Tunks Park. Anzac and Cammeray Parks have also been mentioned as potential spoil sites impacting sport and school activities such as the Tennis Club and Football/Soccer Fields. Whilst the locations of stacks have not yet been documented three ventilation stacks have been mentioned and media claim that leaked reports have shown proposed locations.<sup>7</sup> Feedback from the RMS during Northbridge and Anzac Park consultations have confirmed that stacks will be placed at Cammeray.<sup>8</sup> These are very large buildings the size of apartment blocks<sup>9</sup> which will consume more green space during and after construction<sup>10</sup> in addition to concentrating pollutants over parks and playing fields (further discussed in 5 and 6).

A significantly large number of children and adults use the sporting fields and facilities in and around the space e.g. one of the largest Netball associations in Sydney, Northern Suburbs Netball Association at Bicentennial Reserve (a few meters from the Baseball Diamond). These activities will be significantly impacted by the planned construction and a probable spoil site at Flat Rock. Our children and their families use playing fields impacted throughout the construction zone from St Leonards Park for junior cricket to Cammeray Park for soccer training to the Willoughby Leisure Centre for swimming.

Saturday morning sport traffic is already at gridlock particularly as Flat Rock Gully Road passes the Shore Playing Fields – both local residents and members of the Shore school community stand to be affected by truck movements, dust, odour and construction activities in around Flat Rock. Loss of green space at Clive Park, Artarmon Park (Cross Country), Cammeray Park (Tennis/ Golf) and the potential contamination of Tunks Park (School Sport) are significant concerns for the school and families.

<sup>7</sup> [www.abc.net.au/news/2017-07-21/precise-location-of-six-polluting-smokestacks-sydney/8729438](http://www.abc.net.au/news/2017-07-21/precise-location-of-six-polluting-smokestacks-sydney/8729438)

<sup>8</sup> [www.northbridgepa.com.au/2017/08/03/survey-result-identifies-residents-concerns/](http://www.northbridgepa.com.au/2017/08/03/survey-result-identifies-residents-concerns/)

<sup>9</sup> <https://www.innerwest.nsw.gov.au/news---hot-topics/hot-topics/westconnex/westconnex-stage-3-camperdown-rozelle-annandale>

<sup>10</sup> <http://kats15blog.blogspot.com/2006/04/un-filtered-tunnel-raises-concern.html>

### Issue 3: Noise

Noise along and around the construction corridor from trucks, drilling, ground work and preparation activities has been well documented in the scope (BGLF Scope 5.4). Other communities who have experienced the type of tunnelling proposed have experienced extreme noise pollution resulting in stress, lack of sleep and illness.<sup>11 12 13</sup> The scientific link to sleep and learning, health and development is well established. A World Health Organisation Study, conducted across Europe over 10 years, came to the conclusion that:

**“there is overwhelming evidence that exposure to environmental noise has adverse effects on the health of the population’ and ranked traffic noise second among environmental threats to public health (the first being air pollution)”.**<sup>14</sup>

Noise pollution affects sleep, concentration and stress levels which in turn impact blood sugars, blood pressure and other health factors. Given that the project timeline is 5-6 years, the long term impact of constant noise could be significant in a child’s lifetime.

The scope seems to suggest that “quiet” suburbs (BGLF Scope 5.4.1) will be more impacted than suburbs that already have expressways and noise pollution however this isn’t supported by the scientific evidence around noise pollution where constancy, volume and timing (i.e. during sleep) is the issue. Any increase in already noisy areas is likely to have a greater rather than a lesser impact on health. Given the topology of the area, noise can travel extended distances e.g.) the Cammeray School bell can easily be heard clearly in Naremburn and beyond. Noise pollution is likely to be a significant issue for many of our children given the spread of works and number of sites throughout the area. This is likely to affect them whilst at school and at home resulting in health, concentration and performance issues.

#### SUBMISSION BY INNER WEST COUNCIL TO SYDNEY MOTORWAY CORPORATION

##### ON THE *WESTCONNEX STAGE 3 (M4-M5 LINK) CONCEPT DESIGN* AUGUST 2017

**“Even where construction activities comply with the project’s conditions of approval, many residents of Haberfield and some residents of St Peters have complained over a long period about unacceptable and at times “intolerable” impacts.**

**The most pressing of these is noise from night-works, as residents continue to suffer health problems from sleep deprivation. The impacts are particularly acute when night-works are undertaken over a long period without adequate respite periods. They are also acute when there are cumulative impacts from overlapping noise envelopes from several construction areas, and where contestable project works are undertaken at the same time as noncontestable project-related utility relocations and geotechnical investigations. Added to this is noise from trucks idling in residential streets, noise/vibration from tunnelling.”**<sup>15</sup>

<sup>11</sup> <https://www.dailytelegraph.com.au/newslocal/manly-daily/fears-schoolkids-health-will-be-at-risk-from-beaches-link-tunnel/news-story/2c352a0a53e31cef40323ce1ee9380be>

<sup>12</sup> <https://www.dailytelegraph.com.au/newslocal/the-hills/complaints-about-noise-and-damage-to-homes-by-northconnex-motorway-investigated-and-denied/news-story/2eaca8c02114369f75f6287638011ae3>

<sup>13</sup> <https://www.dailytelegraph.com.au/newslocal/inner-west/land-under-homes-aquired-for-tunnelling-on-westconnex/news-story/e78504caedca64ba68a448be5dd768ef>

<sup>14</sup> <https://www.science.org.au/curious/earth-environment/health-effects-environmental-noise-pollution>

<sup>15</sup> <https://www.innerwest.nsw.gov.au/ArticleDocuments/239/Inner%20West%20Council%20submission%20on%20M4-M5%20Link%20Concept%20Design.pdf.aspx>



## Issue 4:

### Environment: Water and Land Contamination

Health Issues associated with pollution have been well documented in scientific literature and many risks are well acknowledged within the scoping document. The potential for Ground Water, Soil Contamination, Water Course Contamination, Air Quality Issues, Contamination of waterways and Flora and Fauna Damage are all well documented within the scope however given the lack of focus on Cammeray/ Naremburn (and surrounds) it seems unlikely that these risks are going to be adequately assessed in our area. The latest Community Update from RMS (Spring 2017) stating that environmental assessments have been focussed along the Wakehurst Parkway reinforces this concern.<sup>16</sup>

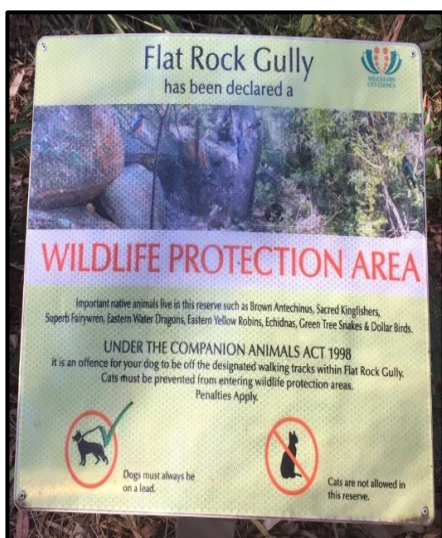
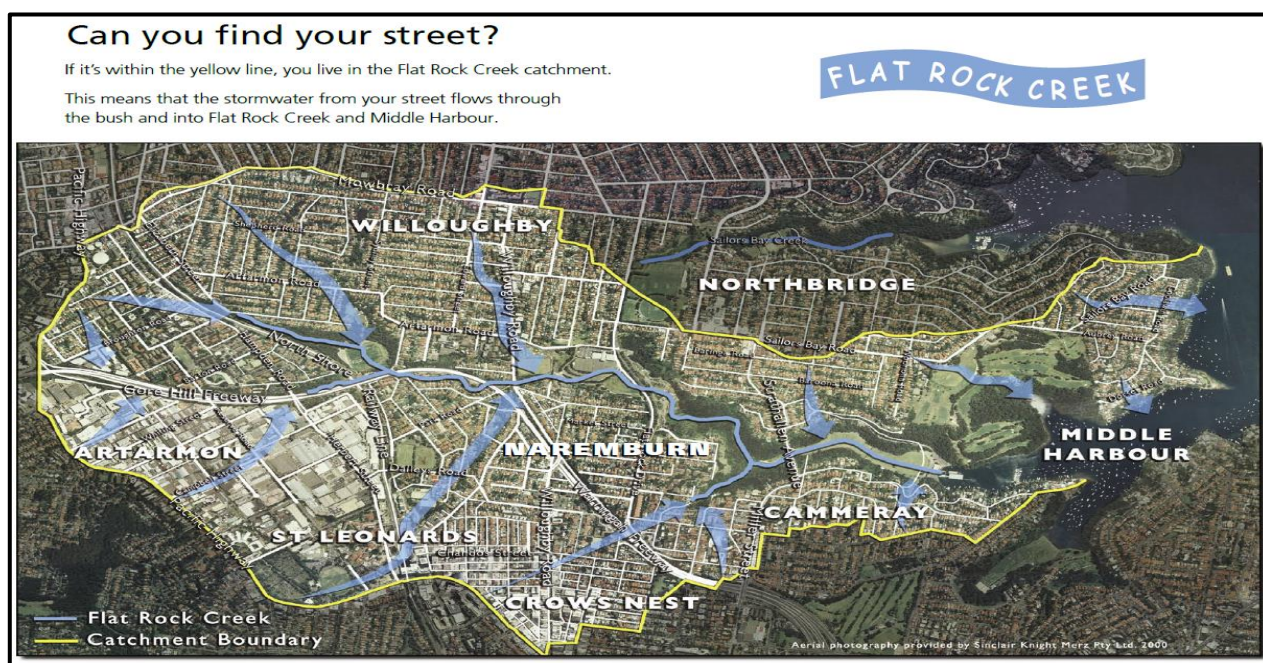


Fig 5-3(BGLF) which outlines the biodiversity features of our area does not show one of our most significant water courses – Flat Rock Gully Creek which flows from Artarmon Reserve, through Flat Rock Gully and down into Tunks Park. This water course is part of a wildlife protection area which is home to several native species (Brown Antechinus, Sacred Kingfishers, Superb Fairywren, Eastern Water Dragons, Eastern Yellow Robins, Echidnas, Green Tree Snakes and Dollar Birds), historical and Aboriginal sites.<sup>17</sup> Flat Rock and surrounds is an area in constant use by residents of Northbridge, Naremburn, Artarmon, Cammeray and the wider community. Given the proximity of the Baseball Diamond and the typical run off flows (see below) it is probable that the creek will become polluted with spoil material (crystalline silica<sup>18</sup> from Sandstone spoil), disturbance of toxic tip materials, construction materials and waste. Any toxic material, including pollution fallout, within the area has the potential to affect the delicate biosystem of Flat Rock Creek and foreshore areas.

### Flat Rock Gully Water Course and Catchment Map



Flat Rock Gully Catchment Map produced by Willoughby Council “Streets to Creeks”

<sup>16</sup> <http://www.rms.nsw.gov.au/documents/projects/sydney-north/western-harbour-tunnel-beaches-link/whtbl-community-update-november-2017.pdf>

<sup>17</sup> [www.willoughby.nsw.gov.au/Environment---Sustainability/nature/walks-and-talks/tracks/](http://www.willoughby.nsw.gov.au/Environment---Sustainability/nature/walks-and-talks/tracks/)

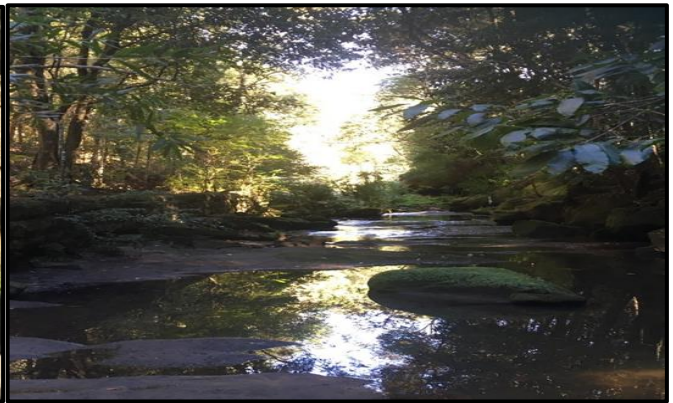
<sup>18</sup> <http://www.stemsafe.com.au/silica-lung-factsheet.pdf>





Flat Rock Gully 1965: Willoughby Council

**Flat Rock Site:** The fact that there is an old landfill (tip) site along the preferred corridor is mentioned briefly within the scope (Scope BGLF 6.3.1 Soils). This brings significant risks such as ground works disturbing asbestos and toxic chemicals which may have leached deep into the ground. The risk to Naremburn/ Cammeray and surrounding residents as well as Flat Rock Gully are not sufficiently recognised in the scope. There appears to be a significant risk to residents in the form of surface and/or ground water contamination produced by disturbance of landfill materials at spoil and preparation sites or via tunnelling. Extreme sulphurous odours can also be a major lifestyle and health concerns, as residents near the Alexandria site have experienced.<sup>19</sup> This area has undergone extensive rehabilitation since it was last used as a tip in the 1980's with many species of native flora and fauna returning – further pollution and disturbance is also likely to significantly impact a fragile ecosystem which has taken decades of community and council work to recover and is classified as a Conservation Area (E2).



Photographs of Flat Rock Gully Today

**Clive Park:** The potential of significant foreshore water pollution is also mentioned in the scoping document (BGLF 5.6.2) particularly if an immersed tube construction goes ahead at Clive Park, Northbridge (in addition to Western Tunnel dredging in the harbour). The dredging of the harbour floor will kill off marine life and make a large portion of Middle Harbour waterways unusable, including Northbridge Baths, for the period of the project and, it is likely, for some time after. It is probable that Clive Park would be contaminated by the extracted material if it was used to dry out/ process toxic spoil there posing a danger to park users and nearby residents.



Clive Park: <https://foursquare.com/v/clive-park>

<sup>19</sup> <http://www.westconnexactiongroup.org.au/official-westconnex-allowed-to-override-environmental-laws>

## Issue 5:

### Health

**Health and Air Pollution:** The link between health problems and air pollution is well documented in scientific literature.<sup>20</sup> Children (and other sensitive populations/ receivers), in particular, are impacted by pollution in the form of growth, disease and respiratory problems. A study by The Australian Institute of Health and Welfare in 2010 found a clear link in Sydney between spikes in pollution (NO<sub>2</sub>) and hospital admissions in 0-14 year olds.<sup>21</sup> Many scientists state that no level of pollution is a safe level when it comes to human health.<sup>22</sup>

**“just because the measurable concentration of pollutants from tunnel ventilation stacks does not surpass limits, that does not mean they do not cause any harm”<sup>23</sup>**

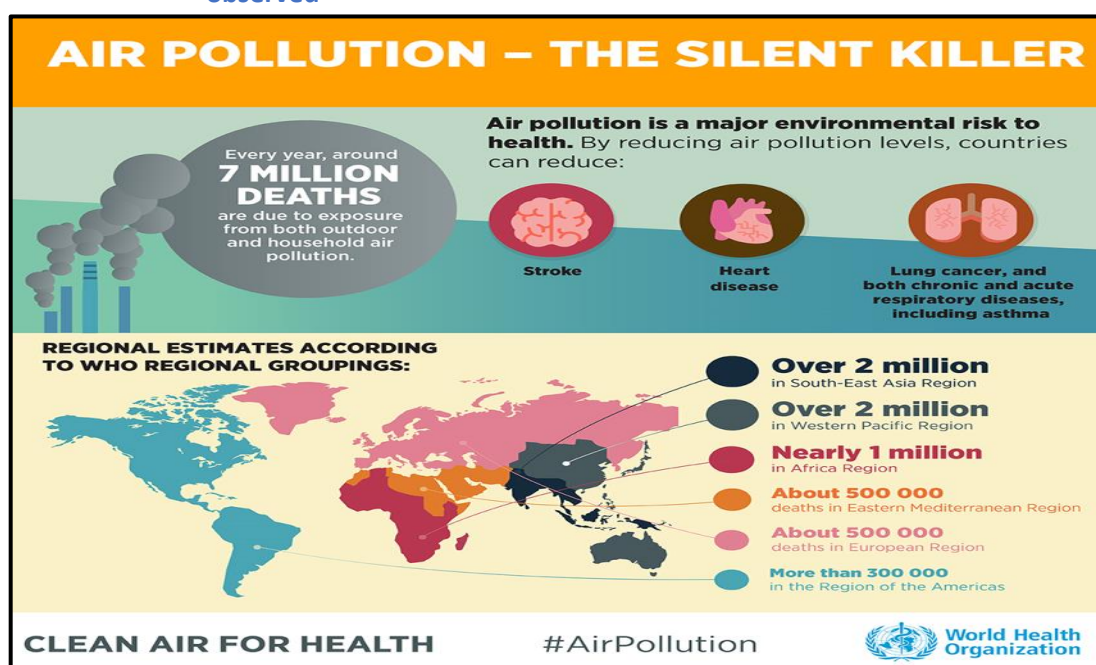
The Australian Network of Environmental Defender’s Offices (ANEDO) made a submission to the Senate Enquiry into our Air Pollution in 2003 which summarised the issue around air pollution targets when it comes to relying on them as an indicator of health impacts:

**“Importantly, adverse health effects occur even at exposure levels below those stipulated in current air-quality guidelines. Both International and Australian studies show that PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, O<sub>3</sub>, CO and SO<sub>2</sub> are non-threshold pollutants, meaning that there is no safe level, or threshold, below which no health effects are observed”<sup>24</sup>**

## The Problems

- ❑ **RISKS INCREASE WITH CONCENTRATION:** Health risks increase with increased pollutant concentrations.
- ❑ **CONCERNS FROM KEY GOVERNMENT AGENCIES:** NSW EPA, NSW Department of Health and the Chief Scientist’s Office have all expressed concern regarding these health risks.
- ❑ **CONCERNS FROM THE MEDICAL PROFESSION:** The AMA, Asthma Foundation NSW, Center for Air Quality Research University of Sydney, and the Public Health Association of Australia have all expressed concern regarding the potential health risk associated with contaminated air.
- ❑ **NEPM CONFIRMS DANGER OF DIESEL EMISSIONS:** Australia’s National Environment Protection Measure (NEPM) for air quality confirms the dangers associated with diesel emissions.

Excerpt from North Sydney Special Precincts Meeting by Noel Child 22 March 2018



<sup>20</sup> [http://apps.who.int/iris/bitstream/handle/10665/69477/WHO\\_SDE\\_PHE\\_OEH\\_06.02\\_eng.pdf;sequence](http://apps.who.int/iris/bitstream/handle/10665/69477/WHO_SDE_PHE_OEH_06.02_eng.pdf;sequence)

<sup>21</sup> <https://www.aihw.gov.au/getmedia/72b113ab-bd4c-46c3-8404-09f633b7fd8a/10517.pdf.aspx?inline=true>

<sup>22</sup> <https://www.sciencedaily.com/releases/2016/12/161209100231.htm>

<sup>23</sup> [www.westconnexactiongroup.org.au/westconnex\\_m4\\_m5\\_link\\_air\\_quality\\_assessment\\_judged\\_inaccurate](http://www.westconnexactiongroup.org.au/westconnex_m4_m5_link_air_quality_assessment_judged_inaccurate)

<sup>24</sup> [http://d3n8a8pro7vnm.cloudfront.net/edonsw/pages/253/attachments/original/1380614001/130308ANEDOhealth\\_impacts\\_of\\_air\\_pollution.pdf?1380614001](http://d3n8a8pro7vnm.cloudfront.net/edonsw/pages/253/attachments/original/1380614001/130308ANEDOhealth_impacts_of_air_pollution.pdf?1380614001)



The same study stated that:

**“Focus in recent years has shifted towards studies of the very small particles, PM2.5 and PM1. As very small particles can enter the respiratory tract and penetrate further into the lungs than larger particles they are believed to be more strongly associated with adverse health effects”<sup>25</sup>**

Research (2016) since the Senate review has clearly showed that PM2.5 particles (and smaller) are a serious health risk as they cannot be expelled by the lungs and are able to enter the blood stream causing serious harm (see World Health Organisation infographic).<sup>26</sup> These particles are produced by and on our roads: an increase in roads increases these pollutants.<sup>27</sup>

It has been stated by government representatives that Sydney’s pollution is low compared to some other similar cities however our pollution levels regularly exceed recommended limits and we have a very high, increasing rate of asthma and respiratory illness. Any increase in air pollution is likely to impact general health but especially those in sensitive populations (i.e. young children). We have a considerable number of schools, preschools, families and nursing homes in the area which would be vulnerable to increases in pollution. On 22<sup>nd</sup> March 2018 Noel Child, an experienced environmental engineer, presented to the North Sydney Special Precincts Meeting and confirmed these health concerns amongst the local scientific and medical community.<sup>28</sup> Many doctors and scientists are expressing concern. Dr Paul Torzillo, a respiratory health specialist and executive clinical director at Sydney’s Royal Prince Alfred Hospital has said:

**“When traffic emerges from tunnels, surprisingly, it has to go somewhere. So it goes back on to roads, and when it goes to those roads, then those roads have higher use, higher traffic, higher pollution levels.”<sup>29</sup>**



**Health and Dust:** Air pollution from fine dust particles entering the air in and around spoil sites and transport corridors (such as Brook St/ Flat Rock Drive, Cammeray Oval, Artarmon Reserve and Clive Park) also pose a risk to human health. The World Health Organisation and other health agencies classify silica dust from sandstone and granite processing to be carcinogenic (cancer causing).<sup>30 31</sup> Whilst standards are currently focussed on risks to construction workers it is likely that homes in and around the construction zones will be contaminated by crystalline silica dust<sup>32</sup> and residents and sporting teams playing adjacent may breathe it in. It is likely that the school community will come into contact with the dust, given that it can easily become air born. Workers have clear guidelines to wash clothes when contaminated with silica dust and must limit exposure over an 8-hour period.<sup>33</sup> It seems reasonable, therefore, to ask if it is safe to be exposed to it

<sup>25</sup>[http://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/253/attachments/original/1380614001/130308ANEDOhealth\\_impacts\\_of\\_air\\_pollution.pdf?1380614001](http://d3n8a8pro7vhmx.cloudfront.net/edonsw/pages/253/attachments/original/1380614001/130308ANEDOhealth_impacts_of_air_pollution.pdf?1380614001)

<sup>26</sup>[www.who.int/airpollution/infographics/en/](http://www.who.int/airpollution/infographics/en/)

<sup>27</sup><https://soe.environment.gov.au/theme/atmosphere/key-findings>

<sup>28</sup><https://www.youtube.com/watch?v=YsLYSZ7n52c&feature=youtu.be>

<sup>29</sup>[www.westconnexactiongroup.org.au/westconnex\\_m4\\_m5\\_link\\_air\\_quality\\_assessment\\_judged\\_inaccurate](http://www.westconnexactiongroup.org.au/westconnex_m4_m5_link_air_quality_assessment_judged_inaccurate)

<sup>30</sup>[www.hse.gov.uk/construction/healthrisks/cancer-and-construction/silica-dust.htm](http://www.hse.gov.uk/construction/healthrisks/cancer-and-construction/silica-dust.htm)

<sup>31</sup>[https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0003/82677/tunnel-dust-report.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0003/82677/tunnel-dust-report.pdf)

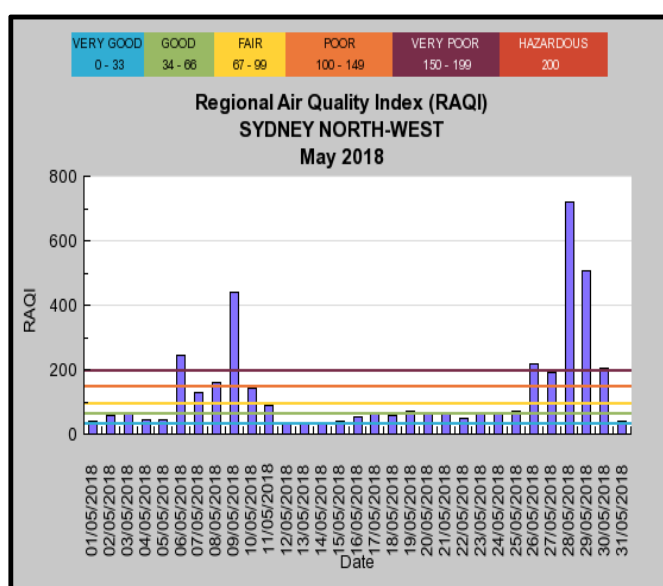
<sup>32</sup><http://www.superquarry.org.au/wp-content/uploads/2011/02/Bridge-2009-environmental-silicosis-risk045.pdf>

<sup>33</sup><https://www.cancer.org.au/preventing-cancer/workplace-cancer/silica-dust.html>

during 24hr/7day a week operations, in and around our school area and for it to be stored and transported through residential areas?

Spoil may also contain toxic leachates from the tip site, high levels of iron (BGLF 6.4), asbestos and chemicals from harbour dredging which pose a significant risk to human health due to heavy metal contamination. Fine dust particles can travel long distances and be inhaled or can be walked into homes and schools.

**Human Health and Odour:** Disturbing the tip site at Naremburn poses a significant risk to human health in the form of asbestos fibres entering the atmosphere and environment but also from the disruption of chemicals and rotting garbage buried deep underground. As the residents of the Inner West have found these odours can be extremely pungent to the point of causing respiratory problems.<sup>34</sup> These odours could well reach the school but would certainly affect families, sport and recreation across the area.



Sydney's Current Air Quality Data May 2018  
(Department of Heritage and Environment Website)  
Note: below green line represents "good" air quality

**Air Quality Monitoring:** It is difficult to validate whether we have low pollution in our area as there is no monitoring data available in and around the proposed construction corridor. The data referred to in the scope (comes from monitoring stations at various locations across Sydney however these permanent stations are not placed in high congestion areas closer to the city centre. Following a review of monitoring in 2008 it was proposed that "**air quality management focus more on those times and places where large numbers of the population are likely to be exposed.**"<sup>35</sup> Our closest monitoring station is at Lindfield many kilometres away, the government website states that the station does not currently comply with required standards and it does not measure the smaller particulates which are related to road pollution and health issues (PM 2.5). Researchers attached to the Lane Cove tunnel project claimed we should be measuring these smaller particulate size as it was likely that these particulates were causing the increase in respiratory health issues found in the vicinity of stacks.<sup>36</sup>

Without more sensitive data collection, it is not possible to validate a claim about base line air quality on the North Shore. A recent government update stated that three new air quality stations were put in in response to community concern around this issue. These have been placed at Naremburn and Seaforth, but the data has not been made publicly available (see the NSW Office of Environment and Heritage monitoring website).<sup>37</sup> A request was lodged with the RMS however we were told that the data will only be made available as part of the Environmental Impact Statement. ANZAC Park School have requested air quality monitoring via North Sydney Council however at the last council meeting it was stated that there was a delay commencing monitoring due to North Sydney Council's initial opposition to the tunnels. Three new large fan-forced (i.e. ventilated), unfiltered stacks are planned to service the Western Harbour and Northern Beaches/ Gore Hill Tunnels. The pollution plumes produced from these stacks are likely to intersect with the emission area from stacks already in existence servicing the Lane Cove Tunnel and the Harbour Tunnel (inside the northern pylon) as wind direction changes, further concentrating pollutants in our area.

<sup>34</sup> [http://www.westconnexactiongroup.org.au/official-westconnex-allowed-to-override-environmental\\_laws](http://www.westconnexactiongroup.org.au/official-westconnex-allowed-to-override-environmental_laws)

<sup>35</sup> [https://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/eh42\\_air\\_quality\\_traffic\\_tunnels\\_150717.pdf](https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/eh42_air_quality_traffic_tunnels_150717.pdf) pg 126

<sup>36</sup> <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0048921#pone-0048921-t007>

<sup>37</sup> [www.environment.nsw.gov.au/aqms/dailydata.htm](http://www.environment.nsw.gov.au/aqms/dailydata.htm)



## Issue 6:

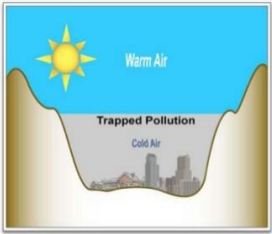
### Stacks: What they are and how they work



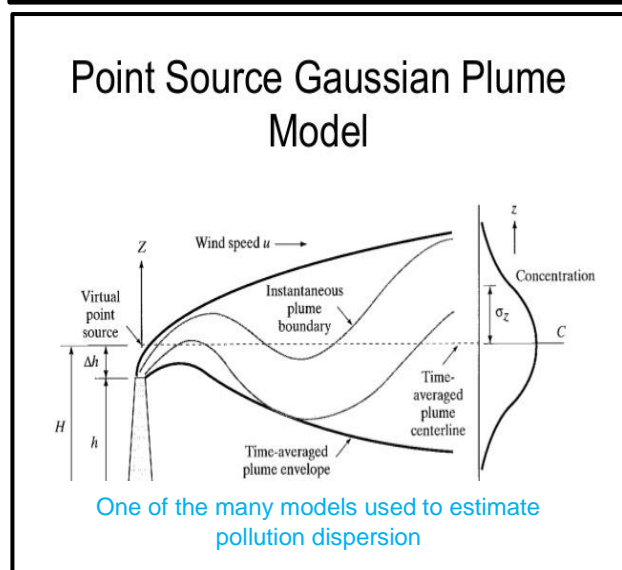
A layer of haze covers the Sydney basin, Australia skyline. John Pryke/Getty Images

#### Inversion Definition

- Occurs during winter months when normal conditions (cool air above, warm air below) are inverted
- Pollutants become trapped within cold air near valley floor
- Primary winter pollutant is particulate matter (PM)



Source: Utah Department of Environmental Quality,  
[http://www.cleanair.utah.gov/about\\_inversions.htm](http://www.cleanair.utah.gov/about_inversions.htm) accessed March 2010



**Dispersion:** Ventilation stacks work by drawing polluted air up using large fans and forcing the pollutants as high as possible into the air above. Higher air generally moves at faster speeds and it is this fact that disperses the dirty air amongst clean. It should be noted that the concentrated, toxic chemicals entering the atmosphere from unfiltered stacks are generally not removed until they are absorbed by lungs, soil, plants or other organic materials. The particles are simply dispersed (i.e. mixed with clean air) to reduce the risk to us and the environment. To achieve the best dispersion rate, pollutants need to be forced up into the air and so stacks are generally large buildings placed at a higher position in the terrain and above buildings i.e.) they are difficult to disguise and highly visible. Effective dispersion can be impacted by several factors. With mountains on one side of the Sydney basin and off shore breeze Sydney experiences thermal inversions where pollutants are trapped by cool air and are unable to disperse effectively (smog).<sup>38</sup> This has been recognised for many decades as a major risk to Sydney's air quality. The scope document does mention that our pollutant levels regularly exceed national standards for ozone and particulate matter (Scope BLGF 5.3.1) but also claims that we have low pollution rates compared to other cities. However, this is a hotly debated topic given the lack of monitoring devices in areas of high congestion, the health risk of exceeding limits and the geography of the Sydney basin it is difficult to justify that it is safe to concentrate more polluted air out over Sydney based on the data we do have especially in residential and school zones.

**How far is pollution dispersed:** In 2014, the NSW chief scientist reported that:

**“Computer and wind tunnel modelling, as well as observational studies, suggest that the greatest impacts from a stack occur some distance from the stack (eg 600 – 1,200m in the case of M5 East (Hibberd, 2003)).<sup>39</sup>**

Testing around freeways in America confirm that vehicle emission pollutants can travel even further in inversion conditions, up to 1600m.<sup>40</sup> Regardless of the size of the plume from one particular source it should be noted that all emissions add to the overall problem of poor air quality and multiple stacks can have a compound effect. The fact that Cammeray

<sup>38</sup> <https://www.thoughtco.com/temperature-inversion-layers-1434435>

<sup>39</sup> [www.chiefscientist.nsw.gov.au/data/assets/pdf\\_file/0005/52988/Road-Tunnels\\_TP05\\_Road\\_Tunnel\\_Stack\\_Emissions.pdf](http://www.chiefscientist.nsw.gov.au/data/assets/pdf_file/0005/52988/Road-Tunnels_TP05_Road_Tunnel_Stack_Emissions.pdf) 3

<sup>40</sup> <http://articles.latimes.com/2013/apr/17/science/la-sci-sn-freeway-air-pollution-20130417>

Public School sits on top of a hill within a relatively short distance of 5 (2 existing and 3 new) potential stacks puts it at particular risk of being impacted by poor air quality. Given the topology of the foreshore areas, variable weather patterns and thermal inversion events, it is likely that the whole area could be significantly impacted by increased air pollution, particularly during peak hour periods, as congestion in the area increases emissions. In cooler weather pollution would be trapped in the many bays and foreshore areas where our children play sport such as Tunks Park. It is also worrying at times that Royal North Shore hospital and many other schools, childcare facilities and aged care homes would experience poorer air quality as a result of unfiltered stacks.

The scope does not include calculations of plumes and dispersion of air particles. There are many variables to take into consideration in trying to determine the plume making the “fall out” zone difficult to predict.<sup>41</sup> Willoughby (and other) councils have developed careful planning controls to ensure that the plumes from Lane Cove Tunnel stacks do not become intercepted by building height (within 800mtrs) as this creates a toxic environment when the toxins are brought to the ground prematurely prior to optimal dispersion (downwash).<sup>42</sup> This suggests that councils are well aware of the toxic nature of plumes from unfiltered stacks and attempt to manage the risks. There is also (as far as we know) not a precedence of five unfiltered stacks in one residential area and scientists generally state that more research is needed to confirm the wisdom of this technology in urban settings.

**Filtration:** The scope states (B2.3.3 page 21) that the stacks will be longitudinally ventilated (ie unfiltered) which is **“consistent with most of the road tunnels around the world”**. This is problematic on three fronts;

- 1) we are building very long tunnels and many disagree that this is the practice around the world for long tunnels;
- 2) there is increasing evidence that there are significant health impacts in and around unfiltered stacks;
- 3) because it is difficult to fully test the impact of new technologies, major road projects have a long lead time and health data takes time to research there appears to be a lag between planning and the research that has emerged.

Gladys Berejiklian previously argued against the unfiltered Lane Cove Tunnel stacks, on the grounds that they had a negative impact on health.<sup>43</sup> Concerned parents (including those with engineering and legal backgrounds) have advised ANZAC Park school following detailed research, that:

**“The problem is long urban road tunnels - only Australia out of the developed world is building long urban tunnels, for all road vehicles, of 3 lanes each way with longitudinal ventilation with only a stack at each end and not using filtration of tunnel air before emission to the surrounding areas.”**

It has been reported that the UK and USA have no long (over 4km) urban road tunnels and Westconnex projects represent the first long road tunnels in Australia.<sup>44</sup> And Dr Ray Childs at the North Sydney Meeting stated that countries who have long tunnels are increasingly filtering<sup>45</sup>, controlling toxins and/or emit pollution well away from residential areas. Recently built long tunnels in Tokyo, China and Madrid have all been fitted with filtration technology. In 2014, the NSW Chief Scientist explained the rationale for not filtering stacks in terms of a “Damage Cost” based on a M5 filtration trial.

**“Based on the damage cost for Sydney provided by PAEHolmes (2013), the estimated annual health benefit of removing 200kg of Particulate Matter is \$56,000 at 2011 prices. This comparison suggests that the operating cost of removing PM in the M5 East was around 13 times the health benefits.”**

<sup>41</sup> [www.chiefscientist.nsw.gov.au/\\_data/assets/pdf\\_file/0005/52988/Road-Tunnels\\_TP05\\_Road\\_Tunnel\\_Stack\\_Emissions.pdf](http://www.chiefscientist.nsw.gov.au/_data/assets/pdf_file/0005/52988/Road-Tunnels_TP05_Road_Tunnel_Stack_Emissions.pdf) 3

<sup>42</sup> <http://www.willoughby.nsw.gov.au/DownloadDocument.aspx?DocumentID=7511>

<sup>43</sup> <https://www.9news.com.au/national/2017/08/15/18/18/gladys-berejiklian-labelled-a-hypocrite-over-smoke-stack-backflip>

<sup>44</sup> <http://lotsberg.net/data/australia/list.htm>

<sup>45</sup> <https://www.9news.com.au/national/2018/03/23/19/59/beaches-link-tunnel-residents-fear-pollution>



This basic cost/ benefit analysis admits that there is a cost to human health and life from unfiltered stacks however that cost (i.e. heart disease and mortality) is of insufficient cost to the government (\$56 000) to warrant the expenditure of (\$760 000) of filtering a single stack.<sup>46</sup>

In 2003, the NSW Department of Health commissioned a report into health effects being experienced by residents living near the unfiltered M5 tunnel stack. The report identified definite health impacts but not clear causality to a specific pollutant or source.<sup>47</sup> A report by the National Health and Medical Research Council (2008), looking into Air Quality in and around traffic tunnels, stated that even the immediate zone under a stack (100-200mtrs) would see a **"measurable impairment of air quality"**<sup>48</sup> however equally pollution can travel very long distances. The report also stated that there was insufficient research into health impacts and that further research was needed. Since that time health research conducted around the Lane Cove tunnel stacks found an increase in respiratory illness in the surrounding area. A correlating increase in monitored pollutants was, again, not found however given the evidence of the health impacts of PM2.5 and uncertainty around monitoring data these research findings cannot be dismissed. The report stated that: **"The findings of this study (into Lane Cove Tunnel stacks) suggest an adverse health effect associated with living in the stack zone."**<sup>49</sup>

**Will Electric Vehicles solve the problem?** Claims that Sydney is rapidly moving toward electric vehicles and lower air pollution is unfortunately not supported by the data produced by the Australian Bureau of Statistics<sup>50</sup> and Vehicle Emission Studies. These studies show that whilst electric vehicle technology is improving, in NSW the overall fleet of non-electric cars on the roads continues to increase considerably with the use of diesel vehicles also increasing.<sup>51</sup> Our fleet age is old with an average of around 10 years<sup>52</sup> for cars and 14 years for trucks.<sup>53</sup> Truck fleet age is increasing due to the added expense and weight (=efficiency) of complying with new truck emission standards. Whilst the industry is very positive about looking for ways to turn this around we have some way to go:

**"Increases both in car usage and in the total vehicle population will start to outweigh the benefits of tighter standards unless more is done to control emissions."**<sup>54</sup>

The technology is also lagging behind the public perception with one physicist working in the area stating of long-haul truck battery technology that **"It's a big prize, but the physics haven't caught up yet."**<sup>55</sup> In other words, battery technology for long haul trucks (which Australia is very reliant on) hasn't advanced sufficiently to start the process of substantive changeover to electrically powered vehicles. If we add our average Australian fleet age to the time frames expected to make electric cars and trucks viable in Australia, substantial changeover does not look feasible for at least another 20 years.

In addition, the NSW Environmental Protection Authority, states that only 1/3 of our road pollution comes from fuel. Particle pollution that causes serious health issues also comes from chemicals in brakes, tyres and the road surface itself. Increasing vehicle numbers increases these pollutants.<sup>56</sup> These factors do not suggest that our uptake of electric vehicles will make any significant impact to pollution rates by the time these tunnels are completed.<sup>57</sup> Certainly, our current generation of children and families in the area will not see any substantial change and the cost to their health of accepting a wait and see approach may be considerable.

<sup>46</sup> [www.chiefscientist.nsw.gov.au/\\_data/assets/pdf\\_file/0017/51911/060814-FINAL-Initial-Report-Tunnel-Air-Quality-WEB.pdf](http://www.chiefscientist.nsw.gov.au/_data/assets/pdf_file/0017/51911/060814-FINAL-Initial-Report-Tunnel-Air-Quality-WEB.pdf)

<sup>47</sup> [www.health.nsw.gov.au/environment/Pages/m5-health-impact.aspx](http://www.health.nsw.gov.au/environment/Pages/m5-health-impact.aspx)

<sup>48</sup> [https://www.nhmrc.gov.au/\\_files\\_nhmrc/publications/attachments/eh42\\_air\\_quality\\_traffic\\_tunnels\\_150717.pdf](https://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/eh42_air_quality_traffic_tunnels_150717.pdf)

<sup>49</sup> <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0048921#pone-0048921-t007>

<sup>50</sup> [www.abs.gov.au/ausstats/abs@.nsf/mf/9309.0/](http://www.abs.gov.au/ausstats/abs@.nsf/mf/9309.0/)

<sup>51</sup> [www.abc.net.au/news/2017-11-09/why-is-australia-so-slow-at-adopting-electric-cars/9135798](http://www.abc.net.au/news/2017-11-09/why-is-australia-so-slow-at-adopting-electric-cars/9135798)

<sup>52</sup> <https://www.fullyloaded.com.au/industry-news/1501/truck-fleet-up-but-average-age-fails-to-fall>

<sup>53</sup> [https://infrastructure.gov.au/vehicles/environment/forum/files/Truck\\_Industry\\_Council.pdf](https://infrastructure.gov.au/vehicles/environment/forum/files/Truck_Industry_Council.pdf)

<sup>54</sup> <https://infrastructure.gov.au/vehicles/environment/emission/files/natinerv-exec-sum.pdf>

<sup>55</sup> <https://phys.org/news/2017-11-electric-trucks-emerging-haul.html>

<sup>56</sup> [https://www.youtube.com/watch?v=28aYt-d\\_3NI](https://www.youtube.com/watch?v=28aYt-d_3NI)

<sup>57</sup> [www.chiefscientist.nsw.gov.au/\\_data/assets/pdf\\_file/0005/52988/Road-Tunnels\\_TP05\\_Road\\_Tunnel\\_Stack\\_Emissions.pdf](http://www.chiefscientist.nsw.gov.au/_data/assets/pdf_file/0005/52988/Road-Tunnels_TP05_Road_Tunnel_Stack_Emissions.pdf)

## Issue 7:

### Damage and Loss of Property in Heritage and Conservation Areas

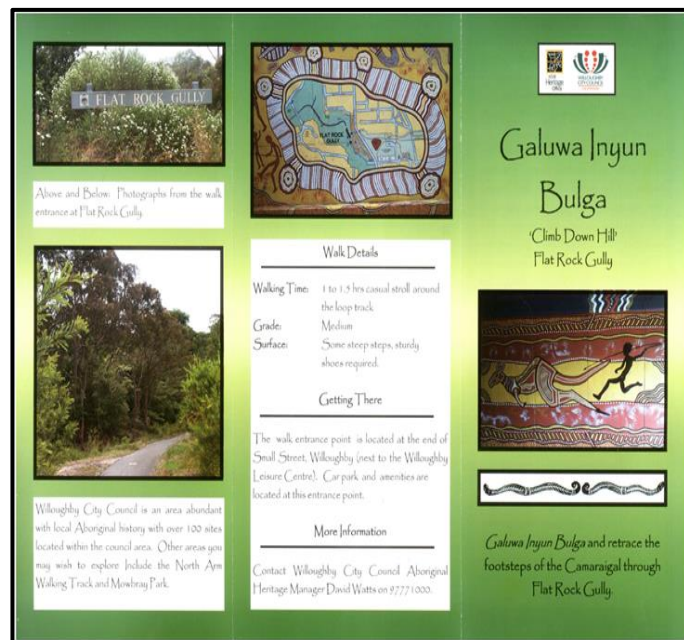
**Conservation and Heritage in the Construction Corridor:** There are several Conservation Areas and Heritage Buildings within and along the proposed construction corridor (some detail in Figure 6.1 in blue). Residents have worked hard and invested heavily in preserving these buildings and environments in good faith for the next generation in accordance with council requirements. The proposed tunnel construction corridor runs directly under the Conservation Area and Heritage Buildings of Naremburn and touches on Cammeray, Crows Nest and Willoughby Conservation Areas. Residents of these areas report significant ground movement in changing weather conditions and many have gone to great lengths to stabilise and conserve buildings – any further ground movement caused by tunnelling, blasts and heavy vehicle movement would put these buildings at significant risk with both a financial cost and a cost to heritage and community. There is no mention in the scope of reimbursement for damage to residential properties, despite residents in and around other projects having experienced significant damage.<sup>58</sup>



Excerpt from Figure 6-1 (BLGF) Showing Conservation Areas in blue and tunnel in red

The Aboriginal Heritage of the Cammeraygal people found throughout the area (estimated 148 sites in Willoughby Area)<sup>59</sup> may be put at risk by excavation, transport and dust/ pollution from spoil sites. There are many significant historical sites in Flat Rock Gully and along foreshore areas such as at Folly's Point, Cammeray and Clive Park, Northbridge however the scope does not adequately detail the existence of these sites (Scope BGLF Fig 5-7 and 5.7).<sup>60</sup> Many sites are identified, in the Scope, north of Middle Harbour. Conservation of the few remaining bush areas and wildlife in the area also stands to be compromised due to construction and staging works.

**As a school we are very proud of the name we have inherited from the Cammeraygal people and many in our community feel a deep sense of responsibility to ensure these sites are maintained and the land respected for future generations.**



<sup>58</sup> [https://www.johaylen.com/m4\\_m5\\_westconnex\\_eis\\_submission](https://www.johaylen.com/m4_m5_westconnex_eis_submission)

<sup>59</sup> [www.willoughby.nsw.gov.au/your-neighbourhood/heritage/Aboriginal-Heritage/](http://www.willoughby.nsw.gov.au/your-neighbourhood/heritage/Aboriginal-Heritage/)

<sup>60</sup> <http://visitsydneyaustralia.com.au/cammeray.html>

**Naremburn** is one of the oldest settlements on the North Shore and in 1984 it was classified by the National Trust as an Urban Conservation Area. The suburb originated with land grants to Evans and Dargan in 1794<sup>61</sup> which was followed by the establishments of the “Central Township” bounded by Market, Brook and Slade Streets by 1853.<sup>62</sup> Historical record shows that by December 1792, only seventy-three persons occupied holdings on the mainland of Australia so this was at a very early stage in the development of Australia.<sup>63</sup> St Cuthbert Church (originally in Market St) was the first in the area to open in 1883<sup>64</sup> and a tram line serviced the area as early as 1896.<sup>65</sup> Naremburn’s history and heritage have already been heavily impacted by the intersection of two Expressways over the past decades however residents have worked hard and are committed to maintaining and restoring what remains.

There are many original houses and workers cottages in this area. Henry Lawson, a past Naremburn resident, is regularly celebrated with poetry readings in his cave which is opposite the proposed spoil site at the Flat Rock Gully Baseball Diamond and the Heritage Registered Incinerator space is used for art shows, meetings and as a gathering place for the community. Kids Bush Scrambles, Walking Groups, Bush Care Groups and Aboriginal Heritage Talks are also held throughout the Flat Rock Area. Several of Henry Lawsons poems describe the area from the church steeple, to the houses, to the beauty of flat rock. Further changes would render it unrecognisable to readers of his poetry which would be a significant loss to our oral history. Lawson was the first man to be honoured with a State Funeral in NSW and is significant to our national heritage. Other historical landmarks such as Fatty Dawson’s house (c 1860) may be impacted along with Aboriginal sites throughout the Flat Rock Gully which have not been detailed in the scope<sup>66</sup>. Many of the sites around the community would be rendered unusable during construction due to dust, noise, pollutants and traffic issues and there are significant community concerns that they may be permanently damaged.

### An Excerpt from “Above Crows Nest”

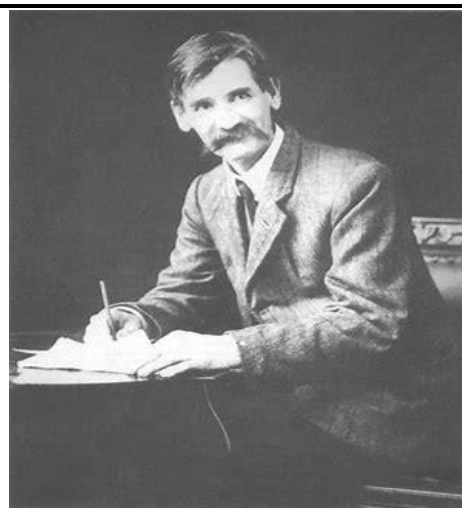
By Henry Lawson 1906 (thought to have been written in Naremburn)



[northbridgepa.com.au/events/bush-poetry-reading-at-dusk-2/](http://northbridgepa.com.au/events/bush-poetry-reading-at-dusk-2/)

This song is for the city,  
The city in its pride-  
The coming time shall pity  
And shield the countryside.  
Shall we live in the present  
Till fearful war-clouds loom,  
And till the sullen peasant  
Shall leave us to our doom?

Cloud-fortresses titanic  
Along the western sky-  
The tired, bowed mechanic  
And pallid clerk flit by.  
Lit by a light unhealthy-  
The ghastly after-glare-  
The veiled and goggled wealthy  
Drive fast-they know not where.



<http://www3.slv.vic.gov.au/latrobejournal/issue/latrobe-28/fig-latrobe-28-088a.html>

<sup>61</sup> [https://en.wikipedia.org/wiki/Naremburn,\\_New\\_South\\_Wales#History](https://en.wikipedia.org/wiki/Naremburn,_New_South_Wales#History)

<sup>62</sup> <http://www.willoughby.nsw.gov.au/content.aspx?PageID=2478> see Naremburn Heritage Walk

<sup>63</sup> <http://adb.anu.edu.au/biography/phillip-arthur-2549>

<sup>64</sup> <https://dictionaryofsydney.org/entry/naremburn>

<sup>65</sup> [www.willoughbydhs.org.au/History/Suburbs/Suburbs-Naremburn.html](http://www.willoughbydhs.org.au/History/Suburbs/Suburbs-Naremburn.html)

<sup>66</sup> [www.willoughby.nsw.gov.au/your-neighbourhood/heritage/Aboriginal-Heritage/](http://www.willoughby.nsw.gov.au/your-neighbourhood/heritage/Aboriginal-Heritage/)



**Cammeray:** The settlement of Cammeray was made possible with the subdivision of dairy farms and the building of the spectacular suspension bridge around 1892. There are significant areas of local conservation throughout Cammeray which will be impacted by the construction. The area close to the school was subdivided for housing in 1902 and Cammeray Public School was opened in 1915 and is Heritage Listed within the LEP (10019). One of the original heritage buildings in the area is named Tarella. Construction began in 1872 by Sir Joseph Palmer Abbott, a former speaker of the New South Wales Legislative Assembly and a member of the conventions which developed the Constitution. He was Chairman of the Board of Directors of the AMP Society<sup>67</sup>. Tarella backs on to the Warringah Expressway at Amherst St where the widening works are scheduled to occur as part of this project.

A creek used to flow through St Leonards park and down into Primrose Park across Cammeray. The water course now runs through Cammeray Golf Course and feeds the Willoughby Falls at Primrose Park which is a significant piece of both our Aboriginal (see picture from Mitchell Library) and Colonial History (esp the nearby area known as Folly's Point).<sup>68,69</sup> Contamination and alteration of the water course via construction works and/or spoil sites at Cammeray Golf Course presents a strong possibility of contamination and/or environmental damage.

Significantly, a number of compulsory acquisitions are mentioned within the scope and notifications have commenced along Morden St, Cammeray. Acquisition of property will have a detrimental impact on the heritage and conservation of the area (not to mention the wellbeing of owners and neighbours). Westconnex residents are experiencing that Heritage/Conservation classification is no barrier to acquisition despite council concern.<sup>70</sup>



The Bridge Estate 1902

<http://www.cammeray.info/wp/history>



Figure 30. Aboriginal person sitting by Willoughby Falls.  
(Source: John Skinner Prout ca. 1843.  
Courtesy of the Mitchell Library, State Library of New South Wales)

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No provision at this point has been made for the purchase of land under properties (substratum) for tunnelling purposes however land under properties can be compulsorily acquired.

<sup>67</sup> [www.environment.nsw.gov.au/heritageapp/visit/ViewAttractionDetail.aspx?ID=5045416#](http://www.environment.nsw.gov.au/heritageapp/visit/ViewAttractionDetail.aspx?ID=5045416#)

<sup>68</sup> <http://photosau.com.au/stantonhistsoc/scripts/home.asp> see Cammeray Walk

<sup>69</sup> <http://visitsydneyaustralia.com.au/cammeray.html>

<sup>70</sup> <https://www.dailytelegraph.com.au/newslocal/inner-west/westconnex-motorway-will-leave-trail-of-heritage-destruction/news-story/389a55016cec7961110bcc3dff14e89c>

## Issue 8:

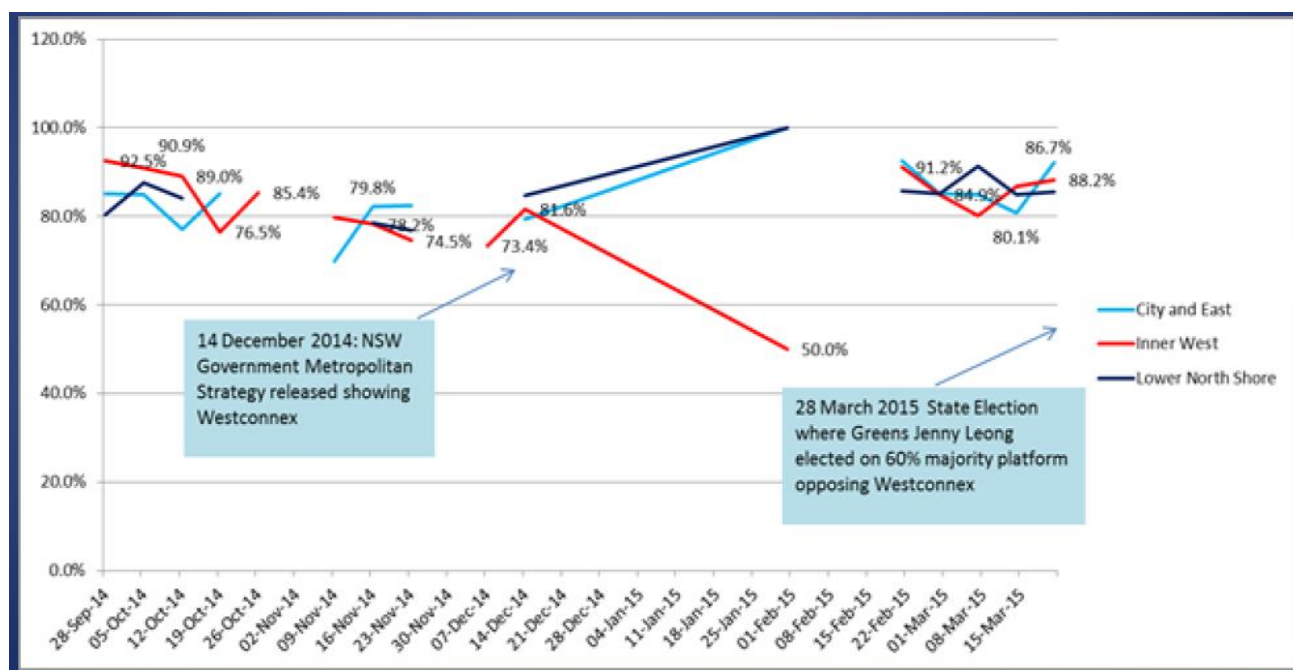
### Property Prices

Property experts (Chris Curtis-Curtis Associates) have informed the community at a Special Precincts Meeting in March 2018 that properties across the area stand to be significantly devalued both during and after construction.<sup>71</sup> Construction noise, uncertainty around pollution, dust, compulsory acquisition and traffic conditions are all factors which buyers take into consideration during construction. After construction the physical presence of stacks and a tunnel underneath homes along with the impacts of additional traffic and parking issues around schools and homes are all factors. Newspaper articles confirm this trend in other parts of Sydney where tunnelling has occurred.<sup>72</sup>

The scope recognises that there may be a psychological impact for those whose homes are compulsorily acquired or live with uncertainty (WHTWF 6.6.2 Operation), as there will be for families who feel trapped by the construction works and are unable to sell. Increased financial and emotional hardship may be experienced by children at the school as a result.

The notification process is not yet clear however some residents in Morden St have already been notified. There are mixed reports around the adequacy of compensation and the determination of “market value”.<sup>73</sup>

There is no suggestion that the government would provide any compensation for devaluation of properties. Northern Beaches Councils however are offering compensation for heritage listed homes that require restoration work independent of the tunnel. Given the high number of heritage buildings the tunnels will impact this may be appropriate.



Excerpt from presentation to North Sydney Special Precinct Meeting 22<sup>nd</sup> March 2018 <sup>74</sup>

<sup>71</sup> [https://www.northsydney.nsw.gov.au/Council\\_Meetings/Community\\_Engagement/Precincts/Registry\\_Precinct](https://www.northsydney.nsw.gov.au/Council_Meetings/Community_Engagement/Precincts/Registry_Precinct)

<sup>72</sup> <https://www.domain.com.au/news/house-prices-fall-dramatically-in-sydney-suburbs-affected-by-westconnex-project-20171028-gz8x3m/>

<sup>73</sup> <https://www.dailytelegraph.com.au/newslocal/north-shore/northconnex-is-set-to-swallow-over-50-properties-and-a-wahroonga-owner-wants-fairer-compensation/news-story/5985b41f15001a5e138f120a3cdae393>

<sup>74</sup> [https://www.northsydney.nsw.gov.au/Council\\_Meetings/Community\\_Engagement/Precincts/Registry\\_Precinct](https://www.northsydney.nsw.gov.au/Council_Meetings/Community_Engagement/Precincts/Registry_Precinct)

## Issue 9:

### Community Consultation

The scoping documents claim that extensive community consultations have taken place. Cammeray Public School, however, has only had one meeting attended by a communications representative without technical knowledge which resulted in many questions being left unanswered. A Public Meeting arranged by the Cammeray Precincts was held on the 26 July 2017 in the Hutley Hall. Approximately 300 people attended including some press however only a few Cammeray Parents were aware of the meeting. Feedback has been that many Cammeray Public School parents are confused about the Precincts system in Cammeray and who to contact for information. For more information see: [https://www.northsydney.nsw.gov.au/Council\\_Meetings/Community\\_Engagement/Precincts/The\\_Plateau\\_Precinct](https://www.northsydney.nsw.gov.au/Council_Meetings/Community_Engagement/Precincts/The_Plateau_Precinct). Naremburn and other residents have been encouraged to join their local progress association to provide input.

Naremburn has not had a specific consultation however Gladys Berejiklian attended a Naremburn Progress Association Meeting in June 2018 and responded to some questions around stacks, cost/benefit and consultation. Ms Berejiklian stated that options to locate stacks away from ANZAC Park School were being investigated (including use of the Harbour Bridge existing stack), she thought there were traffic benefits to nearby streets (ie Mowbray Rd and High St) and she wasn't aware of the lack of consultation. The Premier mentioned the opportunity for further consultation once detailed plans and the Environmental Impact Study (EIS) is produced.

Given that Cammeray and Naremburn will be amongst the most impacted suburbs the lack of consultation to date is surprising. Community feedback from Cammeray Public School is showing a very low level of knowledge and a high level of concern amongst members of the school community. In a combined population of 12,000 people the numbers so far are not hugely significant.

Consultation took place in other areas throughout May-July 2017 however this was prior to any specific details being released including the preferred route. The scope was subsequently uploaded to the RMS website in October 2017. Since this time very little additional information has been made available to the public and it is generally felt by the School P & C and local community that far more detailed consultation and consideration of our needs and health concerns is required. A letter has been sent to Ms Berejiklian to invite her to address the Cammeray School Community directly with appropriate experts in the various areas of concern.

Currently the project is awaiting approval as a State Significant Infrastructure Project. Geological testing has been completed in the area and the Environmental Impact Assessment and Detailed Design is being prepared by the RMS. Once these documents are finalised they will be published for community feedback. Most projects have been allowed 2-6 weeks for community feedback however the Premier stated at the Naremburn Progress Association Meeting in June that we would be given 5-6 months. It should be noted that consultation at the EIS stage appears to enact change in relatively minor ways (i.e. sound barriers, spoil management, air monitors) rather than making a significant step change to a project as a whole. It is concerning that the geological investigation has taken place along the "preferred corridor" only and other corridors have not been investigated. This would indicate that, despite a lack of community input, the preferred corridor of North Sydney, Cammeray, Artarmon and Northbridge will likely be converted from preferred route to planned unless substantial community feedback is given now.



## Issue 10:

### Poor Cost/ Benefit

The focus of the **Beaches Link and Gore Hill Freeway (BLGF)** Connection Scoping Report October 2017<sup>75</sup> centres on the need to reduce traffic congestion around the Northern Beaches, Mosman and Spit Bridge areas. The **benefits** listed include decreased travel time, connectivity, benefits to Northern Beaches businesses as well as relief of congestion along **“Military Road/Spit Road, Mona Vale and Warringah Roads”** (BGLF Scope 2.1.1). No specific benefit is mentioned to the Lower North Shore area, Naremburn or Cammeray in the scope.

The focus of the **Western Harbour Tunnel and Warringah Freeway Upgrade (WHTWF)** Scoping Report October 2017<sup>76</sup> centres on the relief of congestion on the current harbour crossings and around North Sydney via a new tunnel bypassing the city. Whilst this may benefit residents the issues raised above seem to out-way benefits considerably with an increase in congestion, pollution and parking issues in the area longer term. The significant widening of the Warringah expressway, tunnel portal and stack constructions will be carried out in and around residential areas with the main burden of construction on the North Shore occurring in and around Cammeray and Naremburn.

The significant **history**, culture and heritage of suburbs such as Cammeray and Naremburn (as well as other Lower North Shore suburbs) are not well represented in the project scopes (BGLF 6.1) which raises the concern that the historical, environmental and social impacts of the project may not be appropriately assessed at subsequent stages.

The scope notes that plans for further road developments along Middle Harbour suburbs were abandoned in 1983 due to **“unacceptable environmental and social impacts”** (BGLF Scope page 13), similarly, there appears to be unacceptable impacts for local communities within and around the proposed corridor now. The scope includes an assessment of Strategic Alternatives (BGLF 2.3.1) one being Public Transport Options. Whilst various public transport developments are listed, including the Northern Beaches B-line Bus, no consideration has been given to a trainline.

Given the lack of focus on Cammeray/ Naremburn, and the immediate area, it is a little difficult to estimate **the benefits** of this project to our community. Certainly, longer term there would be a faster commute to the beaches area and a possible bypass of the city to the west. Short term there may be benefits in terms of reduced traffic through Naremburn, Northbridge and Cammeray. However, there is evidence to show that short term gains are often lost as more cars owners become dependent on the roads, followed by toll avoidance which increases local congestion.

The **cost of the projects** is considerable, both from a monetary and community perspective. **Naremburn and Cammeray potentially lie in the epicentre of four coinciding works**, compounding the traffic and spoil site issues. We stand to take the brunt of the environmental, health, amenity, traffic and financial loss with the (Upper) Northern Beaches and Spit/Mosman area achieving the maximum benefit from traffic congestion relief and reduced travel times. It should be noted that the Inner West, North Sydney, Balgowlah and Seaforth communities are also concerned.

A statement, of relevance, to the Cammeray, Naremburn and Lower North Shore residents is the following statement, from the National Health and Research Council in 2008:

***“...a road tunnel asks a few people to bear a greater health burden on behalf of the majority who benefit from better air quality. This may seem unacceptable, especially if those living near the point sources do not gain as much from the transport benefits of the tunnel.”<sup>77</sup>***

<sup>75</sup> [www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/index.html](http://www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/index.html)

<sup>76</sup> <http://www.rms.nsw.gov.au/documents/projects/sydney-north/western-harbour-tunnel-beaches-link/wht-scoping-report-october-2017.pdf>

<sup>77</sup> [https://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/eh42\\_air\\_quality\\_traffic\\_tunnels\\_150717.pdf](https://www.nhmrc.gov.au/files_nhmrc/publications/attachments/eh42_air_quality_traffic_tunnels_150717.pdf) 127

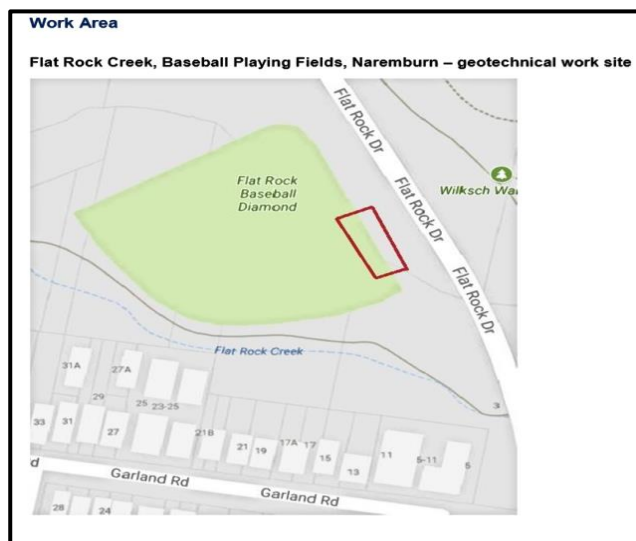
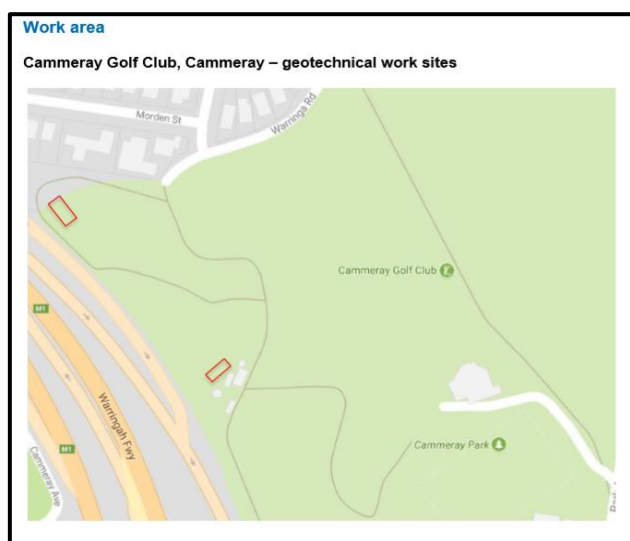
## Appendix 1: Status of Projects

### Geotechnical Surveys

Geotechnical Surveys July-Nov 2017
B134a Flat Rock Creek baseball field
B154 Small Street, Willoughby
B176A Flat Rock Creek
B233 Small Street, Willoughby
B227 Armstrong and Jenkins Streets, Cammeray
B337 Cammeray Golf Club
B341 Rosalind Street and Cammeray Avenue, Cammeray
B1013 Clive Park, Northbridge
B115 Nulgarra Street, Northbridge
B116 Euroka Street, Northbridge
B135 Minnamurra Road, Northbridge
B155 Bega Road, Northbridge
B155 Tunks Street, Northbridge
B177 Flat Rock Creek, Northbridge
B238 Sailors Bay Road, Northbridge
Bega Road, Northbridge
B355 Grandview Street, Naremburn
B229 Slade Street, Naremburn
B351 Reserve Road, Artarmon
B352 Artarmon Reserve, Artarmon
B354 Gore Hill Freeway, Artarmon
B358 Gore Hill Freeway, Artarmon
B114a Corner Lambs and Punch Road, Artarmon
As per RMS Website Geotechnical Notifications

Currently RMS are preparing the Detailed Design and Environmental Impact Statement necessary for final approval. It should be noted that other projects, once these documents were issued, have moved very quickly towards commencement with only a short time for public comment. Significant investment has been made into testing the preferred route which has included geological testing at the Naremburn Baseball Diamond, Flat Rock Gully, Cammeray (Golf Course/ Cammeray Park), and at Clive Park, Northbridge. An air monitor has been installed at Rhodes Ave, Naremburn and several at Seaforth. Anzac Park school have also been promised air quality monitors however it was stated at the June 2018 Council Meeting that there had been a delay in implementation due to issues with North Sydney Council's initial objection to the tunnel projects. Flat Rock (next to the Netball Courts and Creek) has been the site of most geological testing to date indicating that this may be a major preparation, spoil and staging location which was confirmed at the NPA Meeting. Further detail regarding the Geological Assessments can be found at:

[www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/project-documents.html](http://www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/project-documents.html)



## RMS Project Timeline

([www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/index.html](http://www.rms.nsw.gov.au/projects/sydney-north/western-harbour-tunnel-beaches-link/index.html))



*Note: This report has been compiled from various sources with the intention of providing access to information only. There is more detail available in the public arena. Parents and citizens should seek information themselves and refer to professional advice where needed. This information has been provided to Cammeray Public School P&C in good faith but the P&C and reviewers cannot take responsibility for the information provided. Please write to your local, state and/or federal member or the relevant department minister (Health, Environment, Planning) for more information or contact the RMS directly on 1800 931 189 or [whtbl@rms.nsw.gov.au](mailto:whtbl@rms.nsw.gov.au)*