Supplementary Submission No 575a

INQUIRY INTO IMPACT OF THE WESTERN HARBOUR TUNNEL AND BEACHES LINK

Organisation: Stop the Tunnels

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STOP THE TUNNELS

Because it's all pain, no gain

Stop the Tunnels Supplementary Submission to the Inquiry regarding the Impacts of the Western Harbour Tunnel and Beaches Link Projects

Thank you for the opportunity to make a submission to the Inquiry into these projects which stand to irreversibly impact Sydney's environment and will dictate how we move around out Harbour city into the future.

Since making our original submission (which was based on a letter widely circulated to Members of Parliament from the community in November 2020) information has become available which provides further background to our initial submission and reflects on new information since available. We request that you please consider the following submission as supplementary material which can be provided as public information. Some of the new or clarified information that has informed the supplementary material include:

1) A Preferred Infrastructure Request (PIR) issued from DPIE to TforNSW relevant to the Beaches Link Project which asks for changes to the project and related correspondence
2) The Response to Submissions Document and DSI's related to the Western Harbour and Warringah Freeway Project
3) The commencement of an Early Works contract; an Alliance between TforNSW and 3 organisations where community expectation around contamination, truck movements and tree removal is not being met due to changes to, exemptions from conditions and/or non-conformance.
4) A Freedom of Information Request related to considerable pollution risks to high rise residents and future development within a wide range of planned ventilation stacks
5) A Freedom of Information Request related to the (lack of) assessment of alternatives
6) A Freedom of Information Request regarding concerning levels of drawdown along the route and the insufficiency of the risk assessment to date
7) Advice from WEPA, including correspondence with the DPIE and EPA, regarding unacceptable levels and treatment of contamination at early works sites
8) Advice from the Crown Lands office regarding the use of Crown and Public Lands for the project.
9) A document which demonstrates the corridor assessment completed for NSW Metro which confirms the viability of the Chatswood to Dee Why rail option as an alternative to a toll road tunnels.
10) The release of the Infrastructure Australia "Reforms to meet Australia's future infrastructure needs" August 2021
11) Further contamination information made available via the Willoughby Leisure Centre Development submission on the landfill site within Flat Rock Gully
12) Further information available due to community research and interview with MLALC regarding the importance of Flat Rock Gully in the history of the Gammeraygal

After careful consideration and analysis, we believe that in the short term a multi-modal solution centred on local place making work hubs, work from home flexibility, active transport, planned public transport and optimisation of current

crossings will provide a far higher cost benefit. The changes accelerated by COVID-19 clearly support this approach and many of these projects simply need to be accelerated from plans already underway. In the medium term, rail-based transport would provide the highest-level benefit, would considerably reduce the environmental impact and provide a lower cost alternative to this proposal which is based on an outdated transport model. We have strongly objected to the project due to the well-researched reasons listed within this document. In light of the 20,000 pages of Environmental Impacts recently published, changes accelerated by COVID-19 and the uncertain financial commitment we believe that it is in the publics best interest to cancel the planned toll road tunnel crossings of Sydney Harbour and Middle Harbour in favour of a mix of more affordable, liveable and efficient solutions.

Sydney is crying out for the fully connected public and active transport systems and the vibrant local centre's that it was once envisaged we would have. In fact, it is essential for the sake of our dynamic peninsular city, that shares it's space with the world's most iconic and sensitive environments, that we invest in just that. This project puts more cars and concrete at our heart at the expense of our unique selling points as a city. We should not be the toll road tunnel leaders of the world inducing never ending car reliance, digging up our foreshore heritage, turning our local centres into parking lots and transferring congestion across our suburbs. Sydney should be the very model of a future proof, sustainable, affordable, efficient city with sparkling harbours, clean air, and quiet, healthy environment at the very heart of what attracts investment and growth. It is the balance that we achieve that will differentiate us into the future and to achieve that balance we believe we need change. Any city can model itself on a New York or Hong Kong – few can ever claim the unique attributes of Sydney. We should be planning a modern urban city that reduces our car reliance and proudly puts our environment front and centre. As outlined in the following document the Western Harbour and Beaches Link toll road project locks in a car reliant model first envisaged in the 1950's. It is an expensive mistake which Sydney cannot afford to make.

Larissa Penn
Convenor Stop the Tunnels
13th September 2021

a. the adequacy of the business case for the project, including the cost benefits ratio,

Summary:

In the Infrastructure Australia Project Business Case Evaluation of the Western Harbour Tunnel and Warringah Freeway upgrade conducted in April 2021, Infrastructure Australia noted that the BCR of the project reduced to 1.1-1.2x using P90 cost estimates. In the same report Infrastructure Australia noted that there were major uncertainties that could impact on future traffic demand that were not considered by the proponent in the business case, such as emerging vehicle technologies and long-term impacts from behavioural changes resulting from COVID-19. Infrastructure Australia encouraged strategic consideration of these issues for future infrastructure projects.

Given the low BCR and the fact that the project does not factor in the cost of changing the surface road network around the project as well as the changing nature of people's travel behaviour due to the COVID 19 pandemic, there is a high risk that if recalculated the BCR would fall below 1. There is precedent for costs to be excluded from project scope by government as the NSW Auditor General found in their review of Westconnex – changes since 2014 report released in June 2021. There is also precedent for BCR's to fall once projects have been reviewed as has also been found in a number of audits conducted by the NSW Auditor General. A business case review of the Beaches Link and Gore Hill extension projects has not yet been completed. A whole of project cost/benefit analysis should be completed before proceeding due to the many reasons detailed below.

A.1 The business case has not been released to the public

Commenting on this point is difficult given that the business case has not been released however both Infrastructure Australia[1] and Infrastructure NSW[2] have produced review summaries of the Western Harbour Tunnel and Warringah Freeway Upgrade section of the project from which some information can be understood. Note: no reviews have yet been published for the Beaches Link and we understand that the Business Case has not yet been reviewed by either Infrastructure NSW or Australia. Based on the limited information, summaries and the 20,000 pages of documents issued as part of the Western Harbour and Beaches Link EIS's we can surmise the following.

A.2 The business case is based on out-of-date data and trends recently confirmed by Infrastructure Australia

The EIS is based on traffic data from 2011, 2012 and 2016. According to RMS data, trips had already fallen along the route prior to COVID-19[3] and regardless of efforts by government to "re-invigorate cities", commentators and senior executives agree that work from home and other COVID accelerated trends are here to stay, at least in part. This has been confirmed by "Reforms to meet Australia's Infrastructure Needs"[4] published by Infrastructure Australia in August 2021. Some of the key findings and recommendations from this report relevant to this project are quoted below. The remainder of this submission will demonstrate why it is critical that these recommendations be applied to the Western Harbour and Beaches Link project.

[1] https://www.infrastructureaustralia.gov.au/projects/western-harbour-tunnel-and-warringah-freeway-upgrade
[2] https://www.infrastructure.nsw.gov.au/media/2528/western-harbour-tunnel_bc-summary-may-2020.pdf
[3] https://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/aadt-map/index.html#/?z=12&lat=33.8419717783177&lon=151.2574700205078&id=22001&df=3
[4] https://www.infrastructureaustralia.gov.au/sites/default/files/2021-09/Exec%20Summary%20%28standalone%29.pdf

A selection of relevant findings are as follows:

- The Australian Government's Centre for Population has projected Australia's population is still growing and is expected to reach 28 million during 2028–2029, **three years later** than if the COVID-19 pandemic had not occurred.
- **1 in 10 Australian workers will likely increase their pattern of working from home** to 2-3 days per week. This will increase the attractiveness of Smaller Cities and Regional Centres and the outer suburbs.
- There was **a 200% increase in net** growth to regional centres and regional areas during the COVID-19 pandemic.
- **Sustainability — an inter-generational commitment**. Integrating sustainability into planning and decision-making will allow Australia to meet present needs **without compromising the ability of future generations to meet theirs**.
- **Long-lived infrastructure — contribution to a net-zero future**. Infrastructure is long-term. Investments made today **must consider a net zero future,** including investing in technology that enables it. A more comprehensive understanding of each sector's emissions profile will help to coordinate national action, identify opportunities and plot a comprehensive short- and long-term emissions reduction pathway.
- Inconsistent use of due diligence and **front-end planning** across the sector — applying it consistently could lead to: 30% reduction in capital costs, 17% reduction in overall project timeline, 160% increase in user satisfaction and functionality.
- The need to **reduce the sector's carbon footprint** — embedding sustainability goals in all infrastructure procurement could lead to a 55% reduction.
- **Over half the infrastructure stimulus** funding governments provided as the pandemic took hold was available **to transport projects**. The enduring transport benefits of these investments must be captured **beyond providing an immediate boost for the construction industry**. Transport investment must be tied to long-term plans that lay down specific, **place-based targets** for freight productivity, access to jobs and services, and population change.
- The past five years have seen a **significant upswing in Australians pursuing a regional** lifestyle as technology changed work/life balance and normalised working from home. This trend was further accelerated by the pandemic. **Growing regions could take pressure off congested cities** and benefit the bush, and **it is now time to bring these centres closer together through better regional transport – including air and rail.**
- **During the pandemic, walking and biking boomed. In some areas, cycling doubled year-on-year**. Making active travel safe and fun for all will drive more growth. **Combining these travel modes with mass transit for long-distance journeys and demand-responsive last-mile bus services will create a new form of urban living where people do not rely on car use.**
- By 2031, Australia's population is expected to reach close to 29 million. Currently, more than 70% of people live in cities, so **demand on existing water and wastewater infrastructure will grow,** and so will pressure on the waterways that receive treated effluent.
- Population growth will **also increase demand for water-reliant features** in the urban environment, including **green and blue infrastructure, which support human health and wellbeing**.
- Australia's social infrastructure challenges are complex and increasing. For example, **government health** expenditure per person is expected to double over the next 40 years. **School infrastructure** is ageing and not meeting demand in Fast-growing Cities. Access and quality to **social infrastructure** is inequitable and **digital technology should be better leveraged.**
- **Social infrastructure represented only 4% of nationally significant projects** in the Infrastructure Priority List. Cross-portfolio, high-value programs must be developed that share investment, land and facilities to deliver economically beneficial projects and the integrated services that communities need.
- Between 2006–2007 and 2018–2019, **construction and demolition waste in Australia increased by 32%** per capita.

"Historically, infrastructure planning has sought to project future conditions as an extension of today, then provided infrastructure to meet anticipated demand. In 2021 and beyond, the approach must be more robust. ***Rather than simply projecting forward the status quo****, infrastructure planning must set an ambitious vision for the country.* ***It should anticipate and adapt to change, manage risk and deliver infrastructure that works towards*** *— rather than against —* ***the current and future needs of the community."*** Julieanne Alroe, Chair, Infrastructure Australia, August 2021

Other agencies have confirmed similar trends, the Australian Government's Centre for Population projects that Australia's population is expected to be 4% smaller than expected pre-COVID by 2031 with Capital Cities bearing the

greatest impact, suffering a 5% reduction[5]. This suggests not only a slowing of population but a redistribution to the regions. The NSW Government's Intergenerational Report[6] released in June 2021, revealed that the NSW population will continue to be 4% smaller than expected by 2061 due to the COVID-19 pandemic and that:

"Part-time work will be more common, and women's participation will be higher across most age groups, partly driven by growth in service industries and greater availability of flexible work."

A combination of these factors have a significant impact on the projects justification which is focussed on congestion relief around the city centre.

It is not only the changing population that calls the business case into question. The Western Harbour Tunnel and Warringah Freeway Upgrade SEARS was over two years old when the EIS was published[7], the traffic data was out-of-date, there has been a greater than expected public transport uptake (under normal conditions), the risks identified during the EIS process are considerable, according to the EIS's many uncertainties remain - it appears clear that the original business case is no longer valid. A re-issue of the business case would be appropriate to include up to date trip data, population projections, new transport mode uptake and account for the risk and uncertainty outlined in the 20,000 paged Environmental Impact Statements.

Concerns that the business case is out of date are further deepened by the fact the Infrastructure NSW[8] (May 2020) and Infrastructure Australia's Business Case (April, 2021) Reviews do not appear to correlate in terms of cost benefits. Although each is only a snapshot of the actual business case, from a public perspective the discrepancies add to greater uncertainty around the project's viability. The Infrastructure NSW review in May 2020 states standard transport benefits account for 80% ($10,007 million) of total benefits. The majority of the standard transport benefits are savings in travel time and increases in reliability. Whereas Infrastructure Australia's Business case review, 15th April, 2021, states the benefits are only $4,887 million in total with far lower percentage benefits for road and bus users. The more recent Infrastructure Australia report notes that:

"*As noted in the 2019 Australian Infrastructure Audit, we must continue to evolve the way we plan for Australia's infrastructure to embrace uncertainty. There are still many uncertainties regarding the long-term impact of the COVID-19 pandemic on infrastructure use*."

Whilst there continues to be uncertainty emerging research suggests that COVID-19 has had a permanent impact and has accelerated trends, changing how we live and work. The impact COVID-19 has had on future work and travel patterns in Sydney should be factored into the consideration of the business case for this project.

A.3 Benefits are overstated, unsubstantiated or uncertain – travel times need to be validated

According to Infrastructure Australia[9]:

"The main benefits (claimed) are reduced transport costs for road users — both those using the Western Harbour Tunnel and those on substitute roads that now have reduced traffic."

There is little to no evidence to support the assertion that substitute roads will experience reduced traffic in fact there are many intersection failures and areas of the EIS that provide evidence to show just the opposite. We are happy to provide more information if required.

The key benefit stated for the project is **$3,312 M**, (2017 @ 7% real discount rate) in **travel time savings** which make up **67.8%** of the stated benefits. The issue here is that the travel time savings quoted make little sense to members of the public familiar with these routes (given we know the length of the tunnels and km's to destinations either side) and we understand that Transport for NSW have never published the underlying assumptions for review. The project documents themselves state that a variety of inputs were used to predict travel time savings, including google map averages. Below

[5] https://population.gov.au/publications/publications-population-statement.html
[6] https://www.smh.com.au/politics/nsw/living-longer-more-part-time-work-and-a-booming-population-nsw-in-2061-20210606-p57yjq.html
[7] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI8863%2120190313T011126.007%20GMT
[8] http://www.infrastructure.nsw.gov.au/media/2528/western-harbour-tunnel_bc-summary-may-2020.pdf
[9] https://www.infrastructureaustralia.gov.au/projects/western-harbour-tunnel-and-warringah-freeway-upgrade

we have used information publicly available to us to "test" the travel time savings claimed. The test is based on today's average google travel times at peak hour. As the benefits are stated as "travel time savings…you will experience by 2037" the public have understood that this means travel time savings based on **today's** trip times. It is therefore reasonable to test the claims based on today's travel times and examine if these savings are plausible particularly as we do not have access to TfNSW modelling of future trip times. In the absence of this information, we have also added an 11% increase in future travel times to the 'test'. The factor was calculated based on the average difference between today's trip times and a do nothing scenario in the Beaches Link EIS.

Based on the travel time savings claimed in project update documents[10], known kms and average google trip times (shortest and longest trips averaged) we were able to estimate the actual trip time that is being claimed (based on today's trip times) In two instances the new trip time would be less than the travel time saving (based on today's averages) claimed which is of course impossible.

Plausibility Assessment of the Claimed Travel Time Savings

Evaluation of Claimed Travel Time Savings - based on km's travelled and average current travel times (PM Peak 5.45pm)

			Based on average Trip Times today			Based on 11% increased delay due to traffic growth without the projects			
Transport for NSW Corridors Claimed in Community Updates */**	Claimed Saving by TforNSW (min)	Distance travelled ie) tunnel plus remaining	Averaged Google trip time today	Estimated Trip Time (Average trip time today - claimed saving)	Plausibility Test Speed Needed (km/hr)	Average Google Trip Time today +11% delay due to traffic growth without the project	Estimated Trip Time with traffic growth +11% minus claimed saving	Plausibility Test Speed Needed (km/hr)	Conclusion
Beaches Link (5.6 km+ Burnt Bridge 1.2 km or Wakehurst Parkway 2.8 km or Gore Hill 2.1 km)									
Brookvale to Sydney CBD	27	15.9	36	9	106 - Not Plausible	40	13	73.38 - Possible but unlikely	Trip savings time quoted not possible based on current average trip times- speeds are limited to 80km/hr and below. Trip time with traffic growth is plausible but difficult to maintain speed due to traffic at either end of tunnels
Dee Why to Sydney Kingsford Smith	56	28.3	50	-6	Trip time negative	56	0	Not Possible	Trip time savings claimed are impossible
Frenchs Forest to Rozelle	54	17.4	55	1	116 - Not Plausible	61	7	149 - Not Plausible	Trip savings time quoted not possible based on current average trip times. With an 11% increase in average travel time the calimed travel times savings are also not plausible
Manly to Macquarie Park	32	22.4	43.5	11.5	149 - Not Plausible	48	16	84 - Not Plausible	Trip savings time quoted not possible based on current average trip times- speeds are limited to 80km/hr and below
Western Harbour Tunnel (6.5kms)									
Sydney Olympic Park to North Sydney	20	19.4	31	11	129 - Not Plausible	34	14	8 - Plausible	Trip savings time quoted not possible based on current average trip times. Plausible if growth in traffic/ increased delay can be verified to be 11%. Less growth would make the savings claimed not plausible.
Leichhardt to North Sydney	20	9.8	19	-1	Trip time negative	21	1	588 - Not Plausible	Trip time savings claimed are impossible
North Sydney to Sydney Kingsford Smith Airport	15	19	28.5	13.5	127 - Not Plausible	32	17	67 - Plausible	Trip savings time quoted not possible based on current average trip times. Plausible if growth in traffic/ increased delay can be verified to be 11%. Less growth would make the savings claimed not plausible. Note: that traffic at Airport and time to Park likely is not factored in so whether this

* Beaches Link Community Update 2019 https://ca-v2.s3-ap-southeast-2.amazonaws.com/rms/bl/virtual/November+2019+-+Beaches+Link+Community+Update.pdf
** Western Harbour and Warring Freeway Community Update 2019 https://caportal.com.au/rms/wht/documents-and-notifications?hview=media-3df613-november-2019-community-update
Note: 11% increase in trip times was calculated by adding the avg trip times now and in 2027 without the project from BL EIS App F 6-9 WFreeway, 6-17 Gore Hill Fwy, 6-25 Balgowlah, 6-32 Frechs Forest and Surrounds of each
Note: Speed calculator was used to calculate trip times

Other trip times are questionably short i.e. the amount of time saving claimed is close to the current trip time. Based on known distances (local trip+ tunnel length) and a speed limit of 80km/hr (this is generous as it assumes no congestion either end of the tunnels and no slow local streets) these trips would all be impossible indicating that the trip time savings claimed may be problematic.

An 11% increase in trip times by 2027 was calculated using the average of the "average trip times per corridor assessment" in the Beaches Link EIS, Appendix F. Even with factoring in an 11% increase in average trip time for a future scenario without the project the savings claimed, in the majority, were not plausible as they would require trips to be conducted well over the speed limits of the roads involved. It is also not clear whether parking time has been factored into the claimed savings, given car dependency and that trips to the city and airport would involve considerable time to access parking. This is particularly relevant when comparing benefits to a public transport alternative which negates the need to allow parking time. The travel time savings also do not appear to factor in congestion at either end of the tunnels.

Whilst this "test" includes an assessment of whether the travel time savings claimed are plausible based on a future growth factor it's important to note that many people we speak to are expecting a **reduction** in current travel time as a result of repeated claims made in marketing material and the media rather than a reduction in an unknown set of future travel times. The basis of the travel time savings claimed should be released to the public for review and marketing material

[10] https://ca-v2.s3-ap-southeast-2.amazonaws.com/rms/bl/virtual/November+2019+-+Beaches+Link+Community+Update.pdf and WHT Update

should clearly state what is being 'reduced'. Actual predicted trip times rather than savings would be a clearer way to express the data to the public - if it was able to be transparently validated.

Scrutinising the trip time claims is an essential step in assessing the business case, an auditor commissioned by the City of Sydney observed that:

"Previous toll road projects have overestimated the travel time savings and drivers propensity to use the toll road to the point where the toll roads have been financial disasters. This includes the Lane Cove Tunnel[23], Cross City Tunnel and the Clem 7."[11]

We do not believe that such significant increases in future travel times (without the project) can be possible due to 1) COVID -19 accelerated trends such as work from home, diversified work places and move to the regions 2) roads already at ceiling capacity forcing behavioural change rather than further increase 3) the trip to work trends from the centres nominated do not support a city or west of city destination and 4) out of date data used which over inflates congestion trends and in some instances claims a growth in congestion where there has been none i.e. Military Rd corridor.

A.4 The dis-benefits associated with negative traffic impacts identified are not considered

Poorer intersection performance, delayed bus journeys and greater congestion around the Warringah Freeway and at Frenchs Forest, for example, do not appear to be factored into the BCR. An analysis by North Sydney Council transport planners clearly demonstrates that in many instances trip times are made poorer as a result of the project.

More information about the impact on local intersections can be found in North Sydney Council's EIS submission[12]**:**

"*Following construction completion, analysis has revealed that WHT and WFU proposals, will result in various changes to the function of the surrounding road networks due to changed access arrangements to the corridor and the operation of new tunnel(s). An analysis of the supplied traffic modelling outputs has been undertaken. The project will see* ***significant net additional traffic on Berry Street, Miller Street, Falcon Street and Pacific Highway*** *(south of Falcon Street) as well as significant reductions in levels of service (i.e greater waiting times) at several key intersections. Channelisation of access between Ernest Street and Sydney Harbour Tunnel is also likely to result in* ***more traffic on Military Road.*** *Forecast increases in traffic delay and proposed access arrangements are such that numerous State and Local initiatives, such as Miller Place, will either be unable to occur or require significant amendment because of the WHT and WFU proposals.*

The EIS documentation includes commentary that the proposed projects will result in:

- (in part) *Increased traffic demands and delays for traffic in the North Sydney area.*
- *Changes to access in and around North Sydney, which would streamline movements around North Sydney CBD but would also impact current arrangements for some residents and businesses in the area.*
- *Potential for increased demand and consequent increases to travel times between the Lane Cove Tunnel/Longueville Road and the Gore Hill Freeway.*
- *...impacts on public and active transport would include the potential for travel times on bus routes through North Sydney to generally increase in the absence of further mitigation measures."*

There is significant incongruence throughout the EIS regarding claims about local traffic conditions – the majority of intersections do not see an improvement and many fail as a result of the project. There are also questions about the network implications into Willoughby which are discussed in Willoughby Councils submission[13] and are the subject of a PIR request. For example, contrary to Transport for NSW claims the documents state that the Beaches link project would produce:

[11] http://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0008/227690/140511-Final-Report_150409.pdf
[12] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SUB-9305%2120200326T040100.508%20GMT
[13] https://www.planningportal.nsw.gov.au/major-projects/submission/783836

"*no material difference to demand on Eastern Valley Way when compared to the 'Do something' scenario.*"[14]

It does not make sense that this key arterial between Northbridge and Roseville would experience no difference between the implementation of the Western Harbour Tunnel and Beaches Link as this is one of the key corridors it seeks to serve. The traffic implications across Willoughby need to be re-examined.

The Willoughby and North Sydney Areas around the Warringah Freeway are not the only areas negatively impacted. According to the Beaches Link EIS Table 6-33[15] average vehicle trip times through the network in Frenchs Forest and surrounds are projected to drop from 5.51min to 4.52min in 2027 to 5,27min in 2037 without the projects. With the project we have not been able to find a comparison of average vehicle trip times through the network however the documents state:
"*The intersections of Wakehurst Parkway/Warringah Road and Wakehurst Parkway/Frenchs Forest Road East would operate with higher average delays due to the further redistribution of traffic from Warringah Road to Beaches Link and delays at the Forest Way/Naree Road intersection would increase as a result of the increase in demand through the area."*[16]

The documents claim that these delays will be offset by the wider network benefits however given the large proportion of employment containment on the Northern Beaches the increase in traffic and delay is likely to have a significant local impact. A comparative assessment should be completed of trip times where the public are easily able to compare the current traffic situation to the projected without the project and the projected implications with the project. The quantification of the disbenefits across the project in terms of traffic re-distribution and delay should be factored into the BCR.

In addition, Infrastructure Australia states that:

"*There are some benefit categories for which there is only emerging evidence, such as benefits from flow break-down and city shaping benefits. These are not integral to the project's economic merit.* ***There are major uncertainties that could impact on future traffic demand that were not considered by the proponent in the business case, such as emerging vehicle technologies and long-term impacts from behavioural changes resulting from COVID-19. Infrastructure Australia encourages strategic consideration of these issues for future infrastructure projects****."*

Given the impact and cost of these projects we believe that these issues need to be considered for this project.

Whilst the claimed travel time savings form the core of the benefits claimed in calculating the BCR all benefits and disbenefits should be re-examined. Given the high cost of investment and that the area is highly sensitive to changes evolving out of COVID-19 i.e. jobs and travel patterns COVID-19 influences should be considered for these projects not only future projects.

A.5 Infrastructure Australia have identified additional dis-benefits

The Infrastructure Australia (IA)[17] review of the business case states that there are distinct dis-benefits around:

"*The reduction in consumer welfare from the charging of tolls on users of the Western Harbour Tunnel".*

It should be added that there will be a reduction of welfare associated with two-way tolling on ALL Harbour crossings that the project earmarks and potential greater toll avoidance across the network. A key issue yet to be analysed is the impact on the Inner West and other suburbs of further toll avoidance if unavoidable tolls are attached to all Harbour Crossings. It is likely that workers moving to and from the North Shore for work will seek to further avoid WestConnex and other tolls if their costs are doubled crossing the Harbour. This is a key consideration given the further economic

[14] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201204T030411.500%20GMT pg 303
[15] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201204T030411.500%20GMT pg 248
[16] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201204T030411.500%20GMT pg 356
[17] https://www.infrastructureaustralia.gov.au/projects/western-harbour-tunnel-and-warringah-freeway-upgrade

strain brought about due to COVID-19 and the toll avoidance and sense of frustration already evident in the community. It is also unclear if independent tolling will be applied to the Warringah Freeway.

"Road use externalities, which include air pollution, greenhouse gas emissions, noise and water pollution, impacts on landscape, urban separation, and road damage.'

Given the highly residential area and the sensitive environment (discussed in more detail later) these externalities stand to be very significant as do mitigations required to minimise these risks. The costing of these externalities should be further assessed considering the need to further assess traffic implications and resultant impacts covered in this report.

The EIS documents limit the analysis of local traffic implications to a small number of streets and key corridors such as Military Rd, Willoughby Rd and Eastern Valley Way have not been fully included in the operational traffic model area. Given the extreme changes to the Warringah Freeway that the project directly causes it is evident that these corridors will be impacted. It is impossible to accurately assess the cost benefits of the project without fully analysing the local traffic implications that result from it. Addressing through traffic whilst creating local traffic log jams may well cancel out benefits given the extent of influence the Warringah Freeway has on the surrounding network. Equally it is not possible to accurately assess pollution re-distribution if local traffic implications are unknown.

A.6 Military Rd does not "improve" as a result of the project as claimed

The community have confirmed with the project team repeatedly that the 10% claimed improvement to Military Rd (as stated in Transport for NSW material, The Guide to the EIS[18]) is based on a reduction in future projected traffic growth **not today's level of traffic**. Traffic levels after the build will sit at roughly the same level as today as demonstrated below. The 10% claim is misleading as the local community believes that there will be a distinct decrease in today's level of traffic if the projects go ahead – this is evidenced by plans to green the corridor and discussions during consultation sessions. North Sydney Council (above) have stated they believe that the project will increase traffic on Military Rd. Mosman Council confirm that traffic does not improve and suggesting some type of "incentivised" use of the tunnel to try to see some benefit from the $14 billion investment[19]. An investment which has been long promised to address the Military Rd corridor without the need for further incentives.

Mosman Council BL EIS Submission Extract:

> A commonly understood principle in road-based transport is that the construction of additional road capacity encourages a corresponding increase of road traffic until the level of driver convenience achieves a new equilibrium. The EIS model predicts that daily traffic volumes along the Military Road corridor will effectively return to the volumes of daily traffic we currently experience today. In practice, it is possible that this may occur by 2027 or sooner if insufficient intervention is made to motivate the desired volume of through-traffic to use the Beaches Link.

Example of the many claims made regarding Military Rd and the tunnels can be found in the Member for North Shore's Inaugural speech: [20]

*"We are also the long- suffering users of one of the most congested roads in Australia, **Military Road**, which has for too long been a subject of concern and impassioned advocacy for residents. I applaud the Premier, the Minister for Transport and Infrastructure, the Hon. Andrew Constance, and the Minister for Roads, Maritime and Freight, the Hon. Melinda Pavey, **for committing to delivering the tunnel**, an investment in the quality of life of everyone who uses our local roads and is impacted by the daily impost of heavy traffic. I will work with the Premier, the Ministers, Roads and Maritime Services, and our community to see the project through."* And statements by the transport minister and other government representatives, "*This tunnel is going to ease the pressure through communities which have had to deal with **rat running, the challenge with Military Road**, not only in terms of its congestion but has been a hotspot in terms of accidents with over 500 a year,"*[21]

[18] https://ca-v2.s3-ap-southeast-2.amazonaws.com/rms/bl/virtual/Beaches+Link+Guide+to+the+EIS+-+December+2020.pdf
[19] https://www.planningportal.nsw.gov.au/major-projects/submission/781131
[20] https://www.parliament.nsw.gov.au/member/files/2230/Felicity%20Wilson%20Inaugural%20Speech.pdf
[21] https://www.abc.net.au/news/2020-12-09/sydney-beaches-link-toll-road-to-open-two-years-later/12964928

as well as newspaper reports[22] which understandably report that Military Rd will see an improvement based on these statements. When questioned decision makers, often further condition their statements as providing a future benefit but by and large these statements are leading the public to believe that a substantial congestion improvement from today's levels will be achieved.

Whilst we agree that there needs to be a solution for Military Rd, the B-Line buses[23] have already proven that they are have been effective in reducing congestion and the tunnel documents prove that a road tunnel solution is a non-solution at a high cost. An investment of this magnitude requires that the intended outcome be met – clearly this project does not achieve the intended results when it comes to Military Rd.

A $14 billion+ project should be motivation enough without having to force drivers to use it, presumably incurring more cost for the government or users. This statement is a clear indication that **the project is not fit for the purposes it was intended** and needs to be re-considered. Political promises should not be placed ahead of **the raw data which demonstrates that this is not the solution it was hoped it would be. Decision makers should be prepared to make decisions on the balance of the data revealed within the EIS documents.**

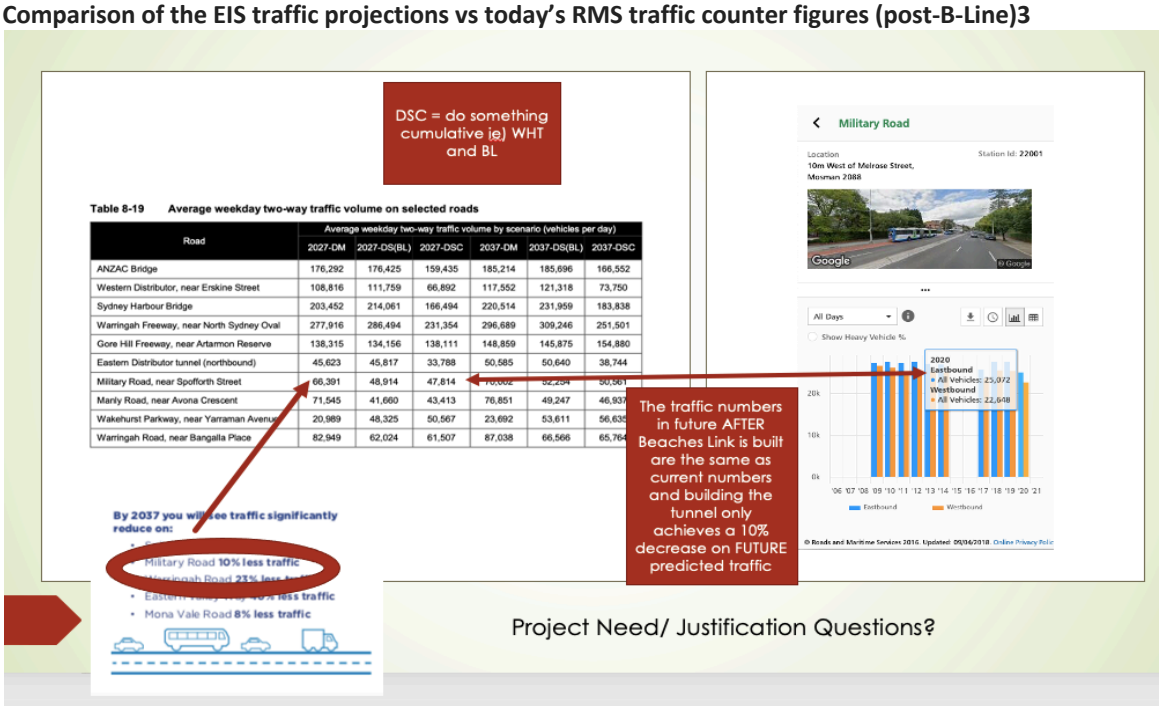
The focus on the idea of this project being a bypass fails to recognise the volume of **local** traffic that is contributing to Military Rd congestion (this is evidenced by the reduction on future traffic projections claimed at the Spit 33% with the projects compared to the future reduction on Military Rd 10% with the projects), that there will always be a percentage preference for non-tolled roads and that the projects focus is not to bring about local congestion relief, but rather by and large it is to develop a freight route. It also fails to recognise that local weekend traffic is a problem due to a shortage of sports fields and increasing density across the area. Much of the traffic is being generated due to school and sporting movements across the area and a growing number of car reliant residents. This project further removes green space and exacerbates rather than addresses these problems. A transport solution, or combination of solutions, that addresses both local and through traffic is needed.

Given that anecdotally Military Rd is at capacity during the peak it seems unlikely that it could reach a further capacity of 66,000 which is at least 20,000 above todays level of traffic. Surely if the road is "at capacity" as claimed then the ceiling capacity has been met and a future growth and therefore improvement on future growth cannot be claimed? Since the introduction of the B-Line buses traffic dropped - it is evident that public transport is a solution that can have a significant impact despite the use of greater road space.

In addition, the Western Harbour EIS states that Ben Boyd Rd and Military Rd intersection will fail should the project go ahead. This has been explained by the project team in terms of the need for traffic to transfer from Ourimbah to Military Rd due to access changes on the Freeway (as with other access changes the local traffic will bear the consequences). Given that Military Rd is quoted as a key corridor that would benefit from the project (much like Parramatta Rd was for WestConnex) it is concerning that there appears to be evidence that the opposite reality is true particularly as the road approaches the Warringah Freeway. The consequence of congestion at the freeway end of Military Rd does not appear to be fully mapped along the corridor. It appears that the "Paramatta Rd" effect may follow ie) a dead commercial zone at one end and gridlocked congestion at the other. Additionally, given the traffic issues on Military Rd created and the entry to the tunnel at Berry St it is highly likely that a considerable amount of traffic will divert down Ben Boyd Rd and into North Sydney. Further work is required to confirm the impacts of the project on Military Rd and it's surrounds. This information should be made public as one of the key drivers for the project is public perception that Military Rd will improve.

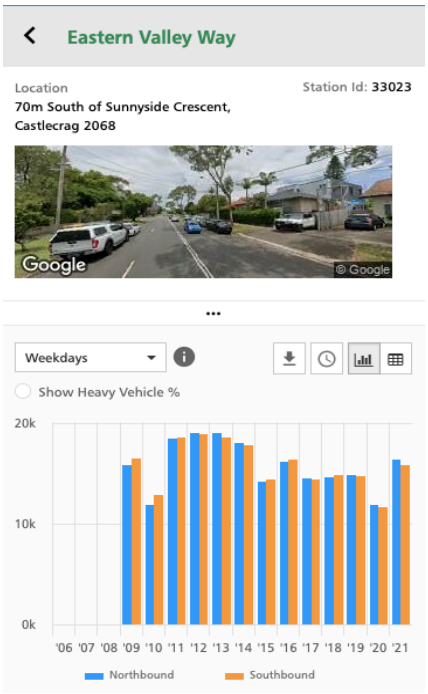
[22] https://www.smh.com.au/national/nsw/the-traffic-is-so-terrible-tunnel-plan-divides-north-sydney-retailers-20201210-p56mgs.html
[23] https://talkingtransport.com/2020/03/07/sydney-b-line/

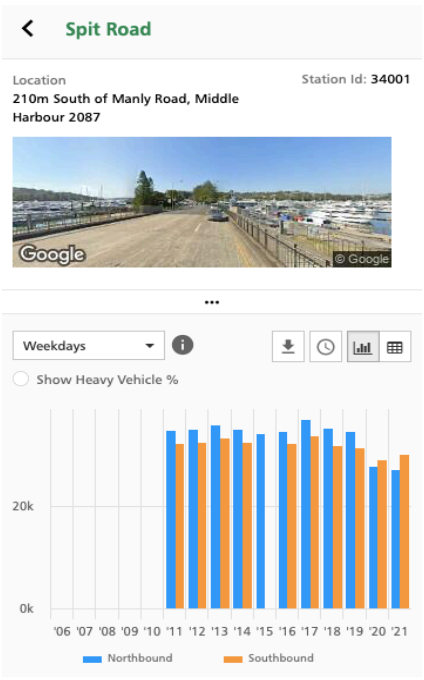
Comparison of the EIS traffic projections vs today's RMS traffic counter figures (post-B-Line)3

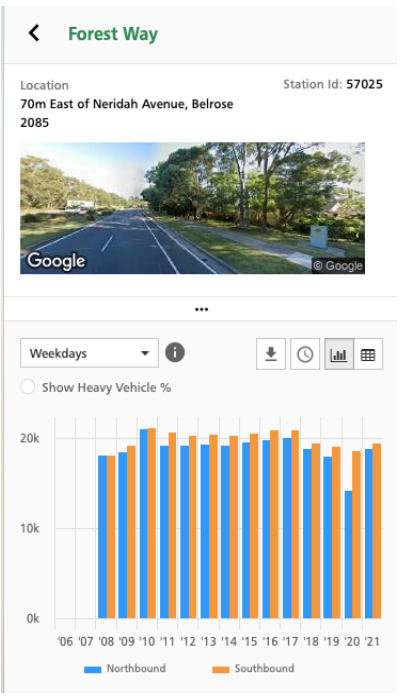


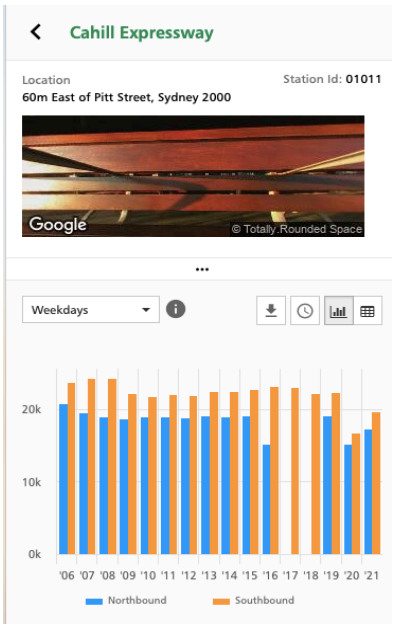
A.7 The Project's Priority and Need is Questionable

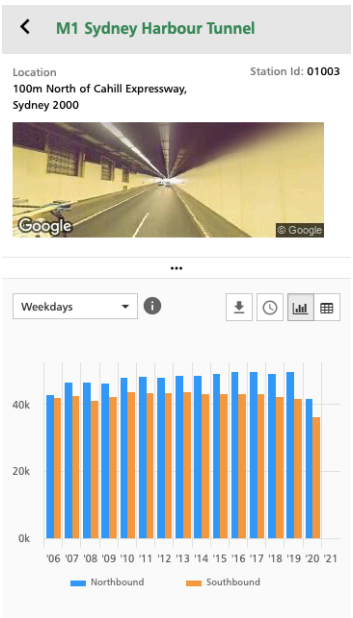
RMS Traffic counters since additional public transport has been implemented (B-Line Implementation in November 2017) demonstrates (excluding COVID-19 affected years 2020/21) that traffic has decreased or plateaued along the corridors that are claimed to be served by the project (note not all corridors have monitors installed). It should be noted the traffic direction Northbound and into the Warringah Freeway is showing the greatest growth/ sustained level of traffic. Whilst some of this traffic may be diverted underground and via the Beaches Link there is insufficient evidence to suggest that the Southbound trip destinations will be serviced by this route ie) majority of worker destinations from the Beaches are not to the city and West of the City. This indicates that while SHT vehicles may divert to the WHT there is a high probability these trips will still exit to the Warringah Freeway and surrounds.

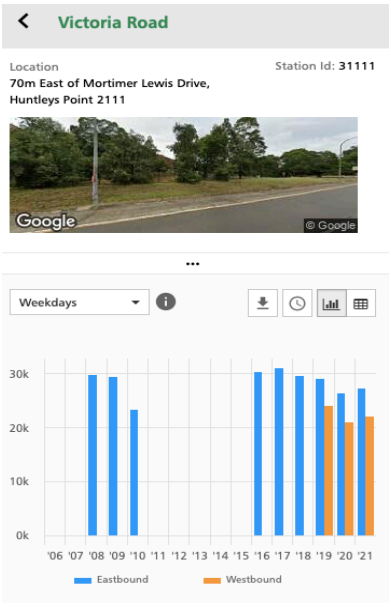












Previously and as recently as February 2021Infrastructure Australia had listed the project as a (low) Priority Initiative with a 5-10 year timeframe with. The most recent Infrastructure report released in September 2021 reclassifies projects in terms of “investment readiness” rather than priority. It is not clear why IA have reclassified projects in this way however the Western Harbour and Warringah Freeway Project has not been stated as only one of two NSW projects “ready for investment” and with a 0-5 year timeframe. There appears to be no justification as to why the priority timeframe has been accelerated above other projects which previously had higher priority. It is noted that the Beaches Link has now been separated from the analysis and is not listed on the priority list.

A.8 Other surface traffic implications are uncertain or negative

One of the key criticisms of both projects is that the local traffic implications have not been fully scoped, yet claims are made regarding improved local traffic times and pollution. It is evident due to the scale of the changes to on and off ramps that local traffic will need to rat run through suburbs around the Warringah Freeway and diagrams that are sitting at the back of Appendix F; Traffic and Transport [24]confirm increased local congestion on the approach to the Freeway. Given the narrow "Operational Road Traffic Model Area" below it is unlikely that local traffic implications are fully known and given the nature of the Warringah Freeway as major local arterial road with many arteries these impacts stand to be substantial. An indication of the impact can be seen in the fact that a majority of intersection around the Warringah Freeway (across a large area of the Lower North Shore) remain the same, get worse or fail as a result of the project.

The Operational Road Traffic Model area below confirms that only a limited number of local streets were analysed and a recent PIR request[25] for Beaches Link has requested further analysis of local intersection implications. Key areas that are likely to be impacted by rat running and back flow of traffic exist throughout Willoughby, Neutral Bay, North Sydney and feeder roads to tunnel ports on the Northern Beaches extending back in Balgowlah and Frenchs Forest.

Despite a lack of analysis (noted by North Sydney and Willoughby Council's planning submissions) and evidence to the contrary (see section e), claims that the project will reduce traffic on surface roads prevail with the Transport for NSW Submission stating:

Unsubstantiated Claim: "Extending the underground motorway network to address capacity, efficiency and reliability issues on critical road corridors will not only provide faster, more efficient and reliable journeys for users, it will also deliver much broader benefits through reduced congestion on existing surface networks "[26]

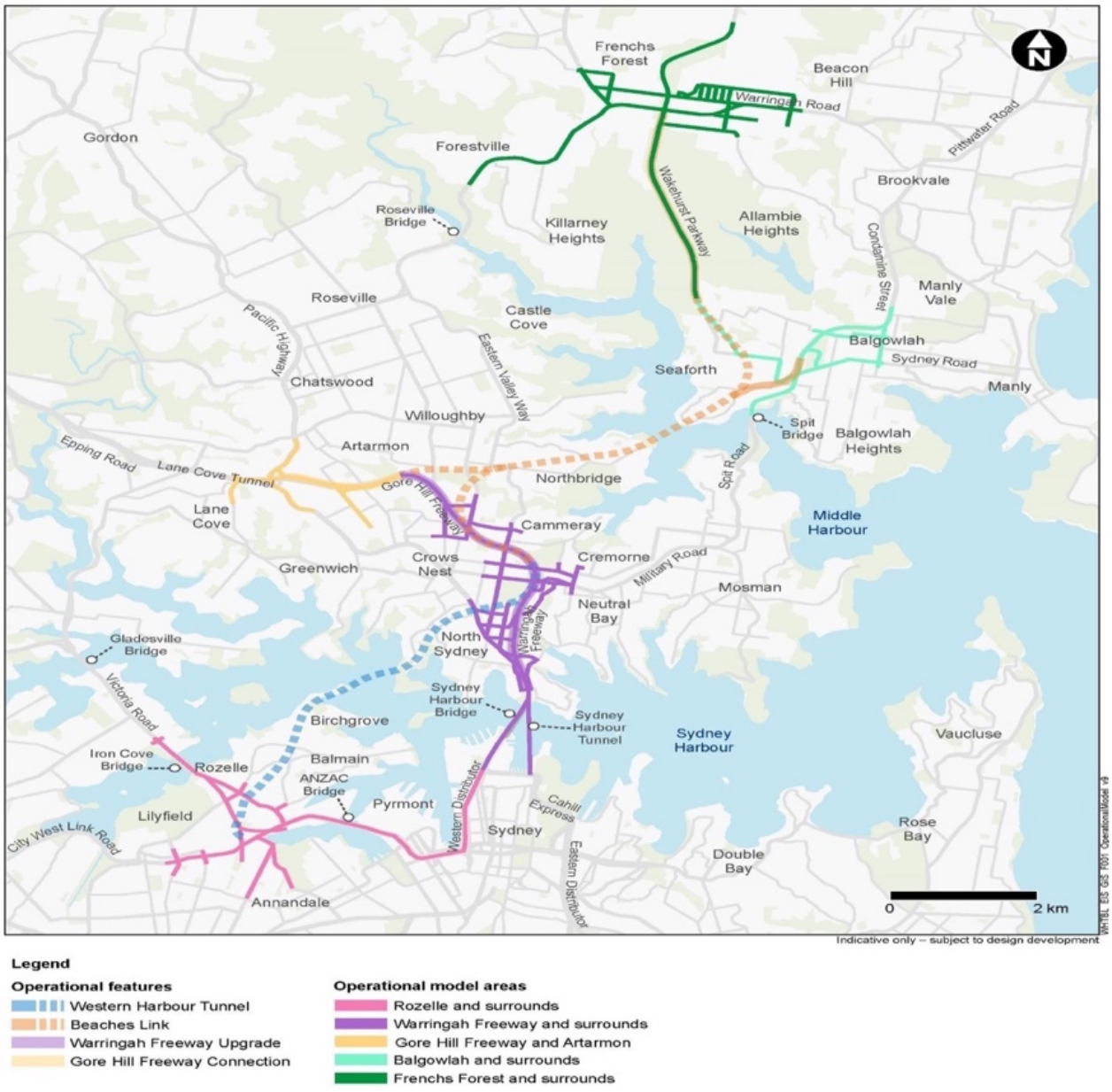
For more information on travel time delay's and impacts on surface roads please see section (e) "the extent to which the project is meeting the original goals of the project".

[24] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201204T030409.731%20GMT

[25] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120210514T043630.746%20GMT

[26] https://www.parliament.nsw.gov.au/lcdocs/submissions/73825/0482%20Transport%20for%20NSW.pdf

Figure 9-2 Operational Road traffic model areas



(b) the adequacy of the consideration of alternative options

B.1 The Inquiry into the impacts of Westconnex recommended detailed options analysis for ALL future projects however that has not occurred:

"have a detailed options analysis" and *"ensure that this analysis is independently peer reviewed in accordance with the requirements of the Infrastructure Investor Assurance Framework.*[27]

An independent review, which includes a comparative review against a range of other transport options, must be completed to ensure a $14bn+ investment in this project represents the best value for money.

The alternatives assessment in the EIS is cursory and an FOI confirms that a road only option was considered and does not allow a comparison on cost benefits across all aspects of the project such as travel times, connectivity, resilience, sustainability, community impact, health, cost etc The public and decision makers should be provided with sufficient information to complete an apples to apples comparison

The projects conclusion about the viability of a mass transit solution is not consistent with up-to-date expert opinion and evolving technology. The EIS states that:

"The physical and urban geography of the Northern Beaches region presents barriers to the consideration of rail-based solutions in addressing the transport challenges faced by the region. The hilly, harbour-based Eastern Harbour City with its established urban area and therefore limited available space to develop a rail corridor, means that provision of rail infrastructure would be expensive with a long lead time to development. The topography on either side of Middle Harbour introduces challenges for constructing a tunnel with a gradient that would be acceptable in terms of engineering design and safety for rail infrastructure, with steep elevation changes as well as geology characterised by substantial rock fracturing"[28]

The project is already planned to tunnel through some of the most difficult terrain and areas of problematic hydrology and fracturing such as at Flat Rock Gully and Middle Harbour. Given that rail tunnels are substantially smaller than road-based tunnels and given engineers have stated that there are obvious solutions these arguments appear to be weak and unsubstantiated. Further the areas being used to support the road-based solution via dozens of constructions and operational sites are far more populated. Metro stations in North Sydney and Crows Nest are being placed in dense residential and commercial areas – the Northern Beaches have plenty of space to accommodate these relatively small buildings above ground or incorporate the entrances into a retail development. It appears an above ground rail option only is being considered as an alternative and not rail tunnels or light/ other rail-based options which experts have advised are viable.

The Final Business Case Summary for Sydney Metro[29], October 2016 signed off by Premier Baird and Minister Constance stated that

*"…. **cars and buses cannot provide the mass transit capacity of the heavy rail network**. Rail network demand is expected to increase by 41 per cent by 2026, with the growth in demand for rail travel into the CBD expected to increase by 31 per cent by 2026"* These acknowledgements appear to contradict the fact that a road project is being presented as the highest priority.

B.2 Benefits of a multi-modal approach are not considered

Other transport options are considered as possibilities but are not considered as part of a wholistic solution before being dismissed as not able to compete with a toll road. The success of the B-line buses and the current outrage over bus and ferry cuts are testament to the fact that the Northern Beaches and North Shore will use and want public transport. The EIS states that:

[27] https://www.parliament.nsw.gov.au/lcdocs/inquiries/2497/Final%20report%20-%20Impact%20of%20the%20WestConnex%20Project%20-%20FINAL%20-%2014%20December%202018.pdf
[28] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201220T231803.722%20GMT
[29] https://www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf

"Additional ferry services on Sydney Harbour were considered as a strategic alternative to the project. Additional ferry services would provide an improved cross-harbour public transport link and would contribute to relieving congestion on existing cross-harbour road connections."

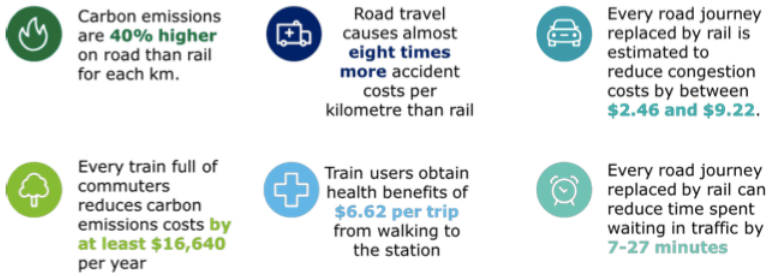
and

"…, alternative transport modes, including bus, rail, light rail and active transport, could be considered as strategic alternatives to the project."

A combination of active and public transport options should be considered as an alternative to the project.

The Smart Motorway project combined with other initiatives may be more effective. The Federal Government has also committed funds in their budget to Smart Motorway project between Anzac Bridge and the Warringah Freeway and the impact of this project should be factored into an alternative's assessment. Creating greater efficiencies combined with other active and public transport options may provide for a better outcome with a better BCR.

B.3 The environmental costs of a toll road project have not been compared to a public transport alternative: there are extensive project specific environmental costs associated (see environmental impact section) with this project but also wider environmental costs associated with choosing a road-based solution over and above a rail based solution as explained by Deloitte Economics "The Contribution of Rail in Australia", November 2017:



B.4 A rail option to the Northern Beaches has been dismissed based on assumptions/outdated information

The EIS states that:

"Given the high cost of constructing and operating rail infrastructure and the low density nature of the Northern Beaches, it is considered that demand would not be high enough to make investing in a specific or dedicated rail link to the Sydney CBD a viable alternative."[30]

There is no evidential basis for this comment and emerging information to the contrary. At the time Beaches Link was first announced, Peter Debnam, stated a train line would be considered if the population grew by 100,000 people on the Northern Beaches[31]. According to ABS data[32] the population of the Northern Beaches at the time in 2002 was 231 708. The Northern Beaches Council[33] predicts that the population will be at 309 333 within ten years of the tunnels opening – nearing the 100,000 increase, at a growth rate of 13.14%. The EIS however appears to account for a more accelerated growth rate (based on vehicle kilometres travelled).

[30] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201220T231803.722%20GMT pg 13
[31] https://web.archive.org/web/20060819031143/http://www.nsw.liberal.org.au/media/view.cfm?media_id=473
[32] https://www.abs.gov.au/AUSSTATS/abs@.nsf/7d12b0f6763c78caca257061001cc588/e6bb00cb2b25b2acca257402001578c2!OpenDocument
[33] https://forecast.id.com.au/northern-beaches

"In the Western Harbour Tunnel and Beaches Link operational road traffic model area, ***daily VKT is forecast to increase by 23 per cent and daily VHT is forecast to increase by 40 per cent by 2037****."*[34]

The VKT/VHT increase can only be accounted for by significant population growth assumptions being built into modelling. Whether those forecasts will be different post Covid stands to be seen however the Northern Beaches may well be insulted from the population slow down as people seek a sea change and take advantage of flexible work arrangements. If the population grows at the rate inferred in the Beaches Link EIS then there will be more than sufficient population to meet the original criteria to justify a rail option and if not questions need to be asked if there is sufficient population to meet contractual obligations needed to pay for the most expensive toll road project in Sydney to date.

Engineer Ted Nye submitted[35] a Freedom of Information request to ascertain why claims were made in the EIS that a rail line to the Northern Beaches wasn't possible. Infrastructure NSW advised that they had not been asked to assess a rail line option and Mr Nye states that he believes the assumption to be untrue.

" I have been referred to INSW for a response including the information requested. This is partially in relationship to why it is considered that: "The physical and urban geography of the Northern Beaches region presents barriers to the consideration of rail based solutions in addressing the transport challenges of the area" I do not consider the above statement in the EIS to be true in fact. Please note during your review that Middle Harbour has already had a bored tunnel traverse it. I have been involved in the planning/design and construction of numerous underground railway systems. Including Epping to Chatswood, the Sydney Airport Line, Sydney Metro West and the current Melbourne Metro and other major underground transport related projects around Australia and internationally"

B.5 Sydney's attitude to Public Transport has changed

In November 2020, Transport Minister, Andrew Constance, admitted that there has been a significant shift in Sydney's attitude to Public Transport:

"People are opting for public transport over cars, that's the thing about Sydney, it has really become a train city, it wouldn't matter if it was light rail, metro or the inter-city trains."

Labor MP for Summer Hill Jo Haylen said

"the Inner West Light Rail was proof that if the government built public transport "people use it"".[36]

This isn't just happening in the Inner West the uptake on the new Metro line was well above government expectations and the success of the B-Line buses also demonstrate that Northern Sydneysiders also want and will use public transport options.

B.6 A rail-based solution has been recommended for the Northern Beaches for over 100 years

A rail solution for the Northern Beaches has been proposed in numerous plans Bradfield Scheme (1920's), Sydney Area Transportation Study (1974), Christie Report (2001) - the solution the beaches have *"waited for, for decades*" is a mass public transit solution that has been planned for over 100 years. We are a Harbour city made up of narrow peninsulas. Previous planners of Sydney recognised that we would eventually run out of road/ parking space. A rail line was always part of the plan for the Northern Beaches and light rail in the form of trams were previously in place throughout the Inner West, North Shore and Northern Beaches.

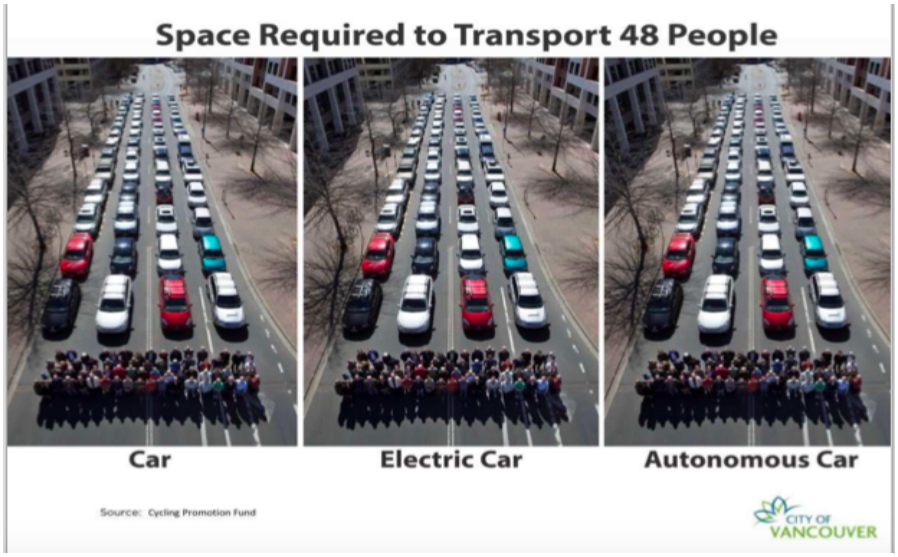
These plans were discontinued when policy changes put personal vehicles at the centre of our transport planning model in the 1950's/60's – however that policy has led us to where we currently stand – a congested city hitting our pollution limits. The current plans for a road tunnel to the Northern Beaches first originated during the 1960's. We now have an

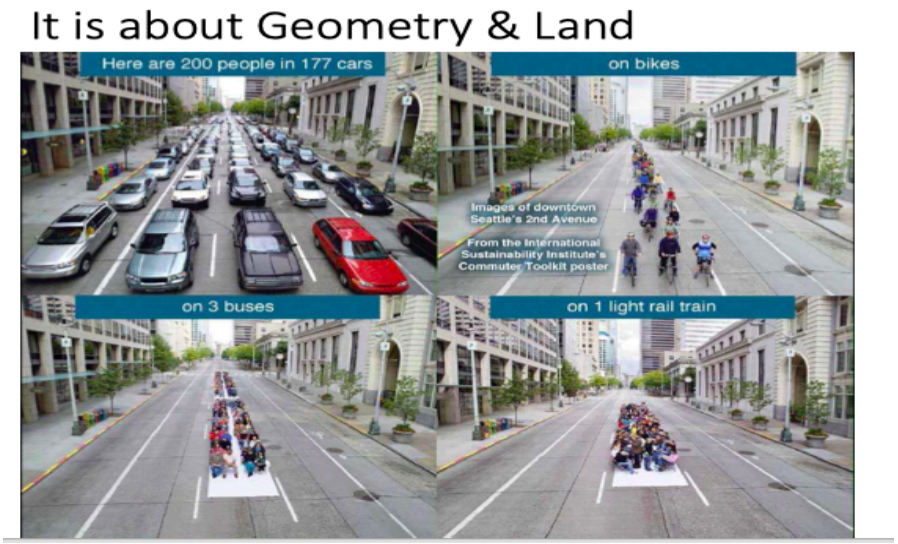
[34] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053358.379%20GMT (page 196)

[35]

[36] https://www.smh.com.au/national/nsw/four-new-trams-promised-for-sydney-s-crowded-inner-west-line-20201107-p56cda.html

ever-growing space and pollution issue whereby road-based solutions simply shift the problem from one community or street to another at excessive cost. Whilst EV's may solve our pollution issue (eventually) they won't solve the space issue, in fact building more road capacity will only increase the problem. With less parking availability in the city and greater public transport links around the North Shore it appears obvious that this project will encourage more commuters to move to the Northern Beaches and park on the North Shore to access the Train, Metro and Buses. Starving the Northern Beaches of proper public transport options is not the answer for anyone along the transport corridor. Additionally, the EIS demonstrates a significant increase in traffic delivered to the Northern Beaches. With the tunnel ports just tipping into the early part of the Beaches at Seaforth and Balgowlah and more traffic induced that is reliant on private vehicle travel, the Beaches will see increased congestion generally. Parking issues at local beaches will also be exacerbated with both more car dependent residents and visitors accessing the area. With a reported $20 return trip with annual increases there are likely to be a minority who can regularly afford the tolls and that increased population, dependent on private vehicles, is likely to turn to rat running, creating more congestion and a White Elephant that the government needs to subsidise over a period of many decades. A far more sustainable and economic investment in the medium to long term is clearly a rail-based option. We need sustainable transport models that recognise the fundamental space problem:





B.7 Short Term Alternatives

A combination of:

a. Local Work Centres

b. De-centralised work force
c. Work from Home
d. Metro South-West
e. Active Transport/ Harbour Bridge Cycleway
f. Warringah Freeway Smart Motorway Upgrade
g. B2 Line Dee Why to Chatswood
h. Upgrade of Mona Vale Rd

A combination of viable alternative options exist and are already underway: First and foremost North Sydney, St Leonards, Chatswood and the Northern Beaches are growing **work centres** in and of themselves - with ongoing support these centres will relieve the pressure on Harbour Crossings as will a high proportion of continued work from home. The job mix North of the harbour lends itself to **work from home** arrangements in line with the IA Reform Report predictions or possibly beyond. Local community members in senior management have indicated that businesses will look to further **de-centralise their work forces** by investing in hubs in surrounding suburbs. It is foreseeable that businesses will look to address risk by encouraging hub and spoke models in the future particularly with COVID-19 expected to continue to interrupt normal business activities for some time and new variants on the horizon.

Secondly the Lower North Shore has seen a very high uptake of **active transpor**t with local bike centres sold out and many more people walking (which a decrease in local traffic has incentivised) – what is missing is seamless and safe connections from Mosman, East Willoughby, Chatswood and Lane Cove to the city. This project further interrupts already disjoined and unsafe cycleways and creates greater pollution levels of cyclists which acts as a disincentive. The broken connection between North Sydney and Willoughby at Naremburn is a particular barrier to efficient active transport across the area as is the need to dismount to access the Harbour Bridge Crossing. Infrastructure Australia lists "Active Transport (walking and cycling) access to Sydney CBD" as a **Priority Initiative** with the NSW Government as Proponent - programs are underway to address some North Shore Links including the "Sydney Harbour Bridge Cycleway Access Program"[37] is underway which will have a very significant impact on mode shift across the area.

Thirdly a **Smart Motorway upgrade of the Warringah Freeway** and Harbour Crossings has already been funded in the last Federal budget – this project is called the "Sydney CBD Motorways Optimisation" and has a 0-5 year timeframe. Additionally, the **Metro City and Southwest** is nearing opening which services the same corridor as the Western Harbour Tunnel and **Metro West** will be added creating mode shift to public transport along the corridor. The Metro Northwest saw a far higher usage rates than predicted once opened – locally it is expected that Metro Southwest will experience similar levels of uptake once COVID-19 conditions lift. The opening of the metro and other congesting busting plans mentioned do not appear to be factored into the business case despite the clear impact that they will have on the Western Harbour tunnel corridor.

In terms of the Beaches Link corridor the **B-Line buses** have been hugely successful in addressing traffic congestion with no growth in traffic along the corridor over the past ten years. The new B2 Express Bus Line between Dee Why and Chatswood will further address congestion from and to the beaches and it is clear that recent bus and ferry changes have bene met with a high level of public outcry. In other, words the Northern Beaches (and the North Shore) want more public transport and less traffic. Perhaps the most compelling short-term solution is to grow what is already a model of sustainable living on the Northern Beaches and that is containment. **The Northern Beaches has the highest level of containment in Sydney with over 50%** of people working locally. This is the sustainable model and an ideal 30-minute city! Trip data shows that very few people are going to the city from the Beaches to work but rather those that do move out of the area are heading to destinations such as Macquarie Park and Chatswood. Growing the Northern Beaches as a jobs centre and work hub supported by public transport rather than encouraging more car reliant city commuters is a far more sustainable model which would keep congestion on the beaches to manageable levels. Introducing **thousands of additional car reliant commuters and visitors is a recipe for ongoing congestion** and will clearly result in a significant degradation in liveability. Certainly, this combination of options would vastly reduce the environmental and other risks associated with the proposed toll road project. By accelerating these projects and focussing investment in local work hubs construction workers can be re-deployed to work on projects with sustainable outcomes that provide for long term jobs that match our changing needs – something a relatively automated toll way has a limited capacity to achieve.

[37] https://roads-waterways.transport.nsw.gov.au/projects/sydney-harbour-bridge/access-projects/cycleway-access-proposals.html

B.8 Medium Term Alternatives

a. Metro/Light Rail under Military Rd to the Spit/Mosman/Taronga Zoo
b. Chatswood to Dee Why Rail Based Option
c. Ferry and local bus services
d. Grow and support local work centres/ containment

Medium term Beaches Link Corridor: a Dee Why to Chatswood and Military Rd rail-based options should be fully considered: As our areas densify there is a need to move more people in a more sustainable way**. A Metro line**[38] **extension under Military Rd** was previously planned and a provision for future connection is provided for in the current Metro Southwest build. Given that the Beaches Link EIS clearly demonstrates a large proportion of congestion is created by local commuters an underground metro or light rail to the Spit/Mosman (along the alignment underground that was originally planned by Bradfield) may well be a far more effective solution (the road tunnel claims to achieve a 33% future drop in traffic at Spit which erodes to only 10% (based on future growth projects not today's traffic) on Military Rd indicating that at least 23% of traffic is local. Should this local congestion be serviced a greater than 10% future benefit could be achieved. This option appears to have been shelved and is not considered in the EIS.

In addition (or perhaps more urgent that this option) Transport planners have advised that the **Chatswood to Dee Why corridor** was previously assessed by the government as providing for the greatest mode shift and VKT lowering opportunity of any corridor assessed in Sydney at the time[39]. Many of the technical issues associated with the corridor assessment have already been overcome by the Metro Southwest project and the remaining technical issues of gradient and a Middle Harbour crossing are surmountable and feasible according to tunnel engineer, Ted Nye. Mr Nye has advised that a light rail between Chatswood and French's Forest (which could be later extended to Dee Why as per dotted line) is technically feasible and would cost in the vicinity of $3-$4 billion – far less than the current road-based proposal. The suggestion of a suspended rail line under the bridge is technically feasible and was considered for the latest Southwest metro.[40] Whether it's a suspended or bridge option the impacts to **Middle Harbour would be minimised** under this option, with **far less extreme environmental impacts** when compared to the current proposal which will see Middle Harbour dredged at a highly contaminated point where PFAS has been detected, Aboriginal Heritage at Clive Park put at risk and 4.5years of heavy and very noisy works between the Spit and Northbridge. But it is not just Middle Harbour impacts that would be minimised – the considerable risks and costs associated with the Flat Rock Gully landfill/catchment dive site, Burnt Bridge Creek and Wakehurst Parkway/Manly Dam would also be removed should a rail-based option be implemented at the Roseville Bridge. This project would align with current transport corridors (rather than residential areas and green spaces), **the planned Frenchs Forest town centre growth** and service the new hospital in an area that will otherwise experience considerable congestion if the current tunnel projects are allowed to proceed. This project would also better align with **the job centres destinations** of Northern Beaches commuters whilst taking through traffic off the road and would meet the sustainability and climate expectations of the area and government goals. An additional benefit could be gained by investing in manufacturing public transport infrastructure and equipment in NSW and reviving a shrinking transport manufacturing sector creating a **larger number of long-term jobs** than a road tunnel reliant on overseas expertise and contracts.

[38] https://www.dailytelegraph.com.au/newslocal/mosman-daily/new-hopes-for-northern-beaches-and-military-rd-rail-in-sydney-metro-plans/news-story/c303c59bd107bc3f6ab9bdb9bdfacc66
[39] http://mathewhounsell.windra.net/connecting-the-northern-beaches-metro-or-motorway/
[40] https://www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf

Results of 2019 Metro Corridor Assessment

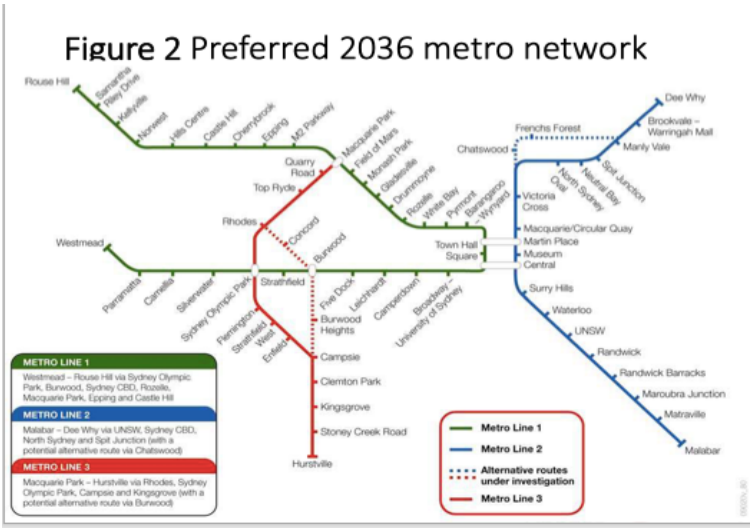
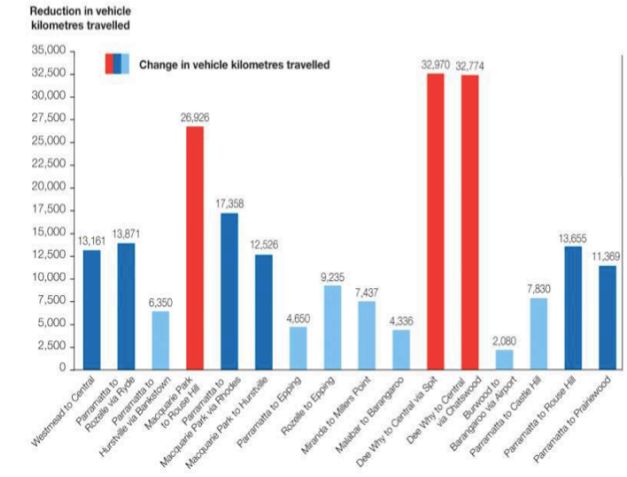
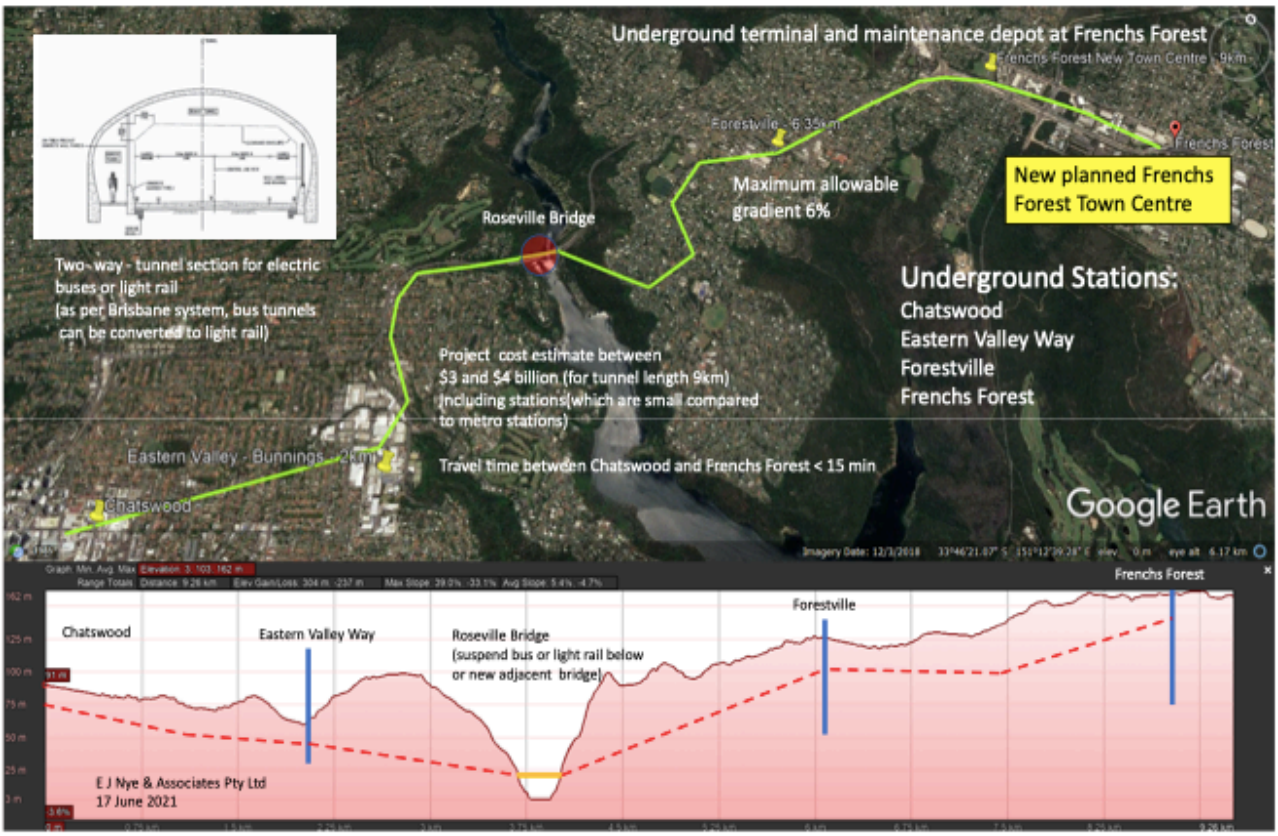


Figure 4.24 Change in Vehicle Kilometres Travelled (VKT)



Engineers, Ted Nye and Associates have mapped a light rail option to the Northern Beaches: The climate conscience and environmentally aware Northern Beaches are ready for a clean mass transit form of the Beaches Link – no-one wants more cars. The option scoped is a feasible and cheaper option to a road-based tunnel which could be supported by local and regional manufacturing and construction.

To demonstrate what a public transport Light Rail option that could have been included and assessed at part of the BLRT - EIS



Concept for underground public transport connecting Chatswood and Frenchs Forest
(on the basis that the proposed 6000 resident Frenchs Forest New Town Centre goes ahead and can be extended to Dee Why and Brookvale)

(c) the cost of the project, including the reasons for overruns

C.1 The projects are not "shovel ready" as claimed

The Western Harbour and Warringah Freeway EIS consultation attracted widespread objection from community, schools, councils and a long list of queries from government departments[41]. A summary of responses were returned by Transport for NSW which stated that *"no design changes"* were made based on community consultation despite the community being assured that their input would inform better outcomes. None of the serious issues raised during the EIS consultation (or prior) have been addressed publicly. Non-impacted communities consulted in the early stages of design have directed the design of the project rather than those impacted and best able to identify risk. The EIS documents demonstrate that there is widespread work yet to be done to fully scope the project and assess it's risk and therefore cost.

Over the past 2 or so years, thousands of letters have been written to the Members for North Shore and Willoughby, a 10,000+ petition[42] originating in the Premier's electorate was lodged to the NSW Legislative Assembly asking that the project to be stopped and significantly amended (30/7/20). North Sydney Council also launched a public campaign[43] against major aspects of the project due to detrimental impacts, to it's CBD, green space and air quality. Willoughby Council submitted an extensive objection document raising considerable issues around the Beaches Link project. This is not a popular project and there is widespread community concern for valid reasons - it is an understatement to say that the community do not feel listened to. Our petition and letters have been acknowledged but the content dismissed[44]. No major changes have been made. Concerningly the EIS and summary business case released by Infrastructure NSW[45] (September 2020) makes it clear that the Western Harbour and Beaches link projects are not stand-alone projects i.e) approving and investing in one gives tacit approval of the other. In the absence of a business case for the Beaches Link the approval of the Western Harbour Tunnel is highly problematic. The projects need to be re-assessed.

C.2 There is a high level of project risk and therefore a high likelihood of cost and time blow outs

The EIS documented a long list of risks and many aspects of the plan are yet to be scoped. Risks include, but are not limited to, unknown geology along the sensitive Sydney foreshore, a high risk of disturbing contaminants in Sydney Harbour, contaminants found along the length of the Warringah Freeway, traffic management plans not yet formulated in a complex densely populated and sensitive area, PFAS and other contaminants detected but not fully tested and no disposal/ drying out locations identified, noise attenuation costs due to high noise impacts and probable damage to thousands of 100 year old homes - the route tracks some of the oldest residential areas in Sydney between the Inner West and Willoughby. Mr Constance stated in a press release that "*Project costs will only be finalised when construction contracts have been awarded."*[46] Whilst this may be considered standard practice by the government it is not the degree of diligence that the public expects, nor does it reflect appropriate governance given that several other major projects have experienced cost blow outs. Current operators and contractors have publicly stated that they will no longer bid for high-risk projects with unknown costs due to previous cost blow outs and legal issues.[47] Transferring risk to the tax paper via poorly scoped and risk assessed projects is not acceptable.[48] [49]

A Peer review of drawdown conducted as a result of the PIR determined that the drawdown risk around and migration risk of contaminants had not been assessed. This is a key concern in areas of known contamination such as Cammeray Park and Flat Rock Gully and is key to understanding how contamination may be spread throughout the area, the health

[41] https://www.planningportal.nsw.gov.au/major-projects/project/10451
[42] https://b373bb7d-84c9-4e32-a5a1-dcb4b84c93f9.filesusr.com/ugd/57c401_40086c02b1e2456786ee5c8f3a30289a.pdf
[43] https://www.northsydney.nsw.gov.au/Business_Projects/Government_Projects/Western_Harbour_Tunnel_and_Beaches_Link
[44] https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#/docid/HANSARD-1323879322-111718
[45] http://www.infrastructure.nsw.gov.au/media/2528/western-harbour-tunnel_bc-summary-may-2020.pdf
[46] https://www.transport.nsw.gov.au/news-and-events/media-releases/nsw-government-seeking-development-partner-for-western-harbour
[47] https://www.theage.com.au/national/victoria/metro-tunnel-machines-grind-to-halt-in-dispute-over-3b-cost-blowouts-20191209-p53i2p.html
[48] https://www.theguardian.com/commentisfree/2020/oct/14/australia-needs-public-spending-but-beware-the-burden-of-white-elephants
[49] https://www.smh.com.au/national/nsw/former-sydney-tip-owners-awarded-50-million-compo-for-westconnex-site-20190718-p528jl.html

and environmental risk and the cost of mitigating these challenging sites which are are located on water sources, in flood zones and catchment areas. These risks should be thoroughly assessed prior to a go/ no go decision is made:

"Predicted drawdown at locations of known contaminant sites are presented in table 16-14 of the main EIS. However, there is no assessment of uncertainty in the drawdown predictions or discussion of the changes in rate and direction of groundwater flow that the drawdown will induce. An updated assessment of potential contaminant migration should at minimum discuss the predicted changes in water level (drawdown) and gradient (rate and direction of flow) at each location with consideration of predictive uncertainty. Where adverse contaminant migration risk is greatest, potential contaminant transport risk should be further assessed using particle tracking or simulations of contaminant transport."

C.3 A legacy landfill site in a catchment to Middle Harbour will be used as the major dive site at Flat Rock Gully[50]

This site is similar in age to the St Peters site[51] but with the added complexity that it sits in a natural gully and catchment which has been lovingly rehabilitated over generations. The rehabilitation and preservation of the remanent forest has been so successful that it is regularly recommended as the top COVID safe walk on the North Shore and rare and endangered species call this urban oasis home. Flat Rock Gully is an important urban wildlife corridor, freshwater creek and deals with a significant volume of water coming from across the North Shore. It is also sadly, in part, a legacy landfill site. There seems to be little detailed documentation on file at local council or with the EPA but local knowledge and written history confirms that the site was the location where medical waste from the North Shore Hospital was disposed of, refrigerant from a refrigerant factory was released, asbestos was dumped, as well as other building and household waste at a time with the tip was unregulated. Disturbing the tip site presents risk to both residents, users of the area and workers.[52] Given it is a flood zone, remnant bushland site, it borders 7 residential suburbs and is a very large catchment leading into Middle Harbour this will be an expensive site to safely mitigate (if that is at all possible) and rehabilitate. Recent projects such as West Gate Tunnel in Melbourne[53] and WestConnex (St Peters)[54] have seen major contamination issues delay and legal issues in and around contaminated sites as well as significant health concerns for residents. The Northside Storage Tunnel[55] also lies along this gully and runs through suburbs to be tunnelled under (Naremburn, Artarmon and Northbridge). This is also a significant sewage system (500 million litres of sewage overflow) which has not been identified during the EIS process to contend with. Currently there is an ongoing major issue with sewage in the area which has sent raw sewage down into the valley, into the creek and out into Middle Harbour via Tunks Park. Given the health and environmental risks to an area dense with residents and playing fields serving thousands of children, further damage to the sewage system is of great concern to the community. It is noted that when the Northsides Storage Tunnel was built, underground caverns and conveyors were used to avoid shipping potentially contaminated spoil through residential streets however this has not been considered as part of the project planning. The project could also be staged to ensure Cammeray and Artarmon connections are built first so that spoil can be removed via the Gore Hill and Warringah Freeway's (which will already receive the same trucks from overground routes) and remove the need for the Flat Rock Gully temporary dive site and the trucking of contaminants through local streets and along school routes.

The cumulative risks associated with the Flat Rock Gully Landfill/ Dive site are so significant that decision makers should not allow the dive site to be placed in the area for this project. Not in the least because it is a landfill site which contains parks at top and bottom used continuously by local schools and sporting groups i.e.) Australia's largest Netball club of 10,000+ members meet adjacent to the proposed dive site. With no-where to relocate to due to overdevelopment and park shortages across the area thousands of children will miss out on sport for 5-10 years or risk significant noise, dust, traffic, diesel pollution and the potential for contamination (gaseous or liquid leachate) impacts whilst playing sport. Areas around the sports fields which sits on top of the tip site which is still settling with depressions occasionally occurring and flooding. Given the sports fields and dive site are connected to the same fill there is a risk of considerable movement disturbing pockets of leachate that will be very difficult to detect and manage. Stopping leachate running downhill through an important remanent bushland and wildlife corridor, in a major catchment will be a significant and a costly challenge. Records demonstrate that there is a clear precedence of leachate contamination running down to Tunks Park

[50] https://www.mwainternational.com.au/product/managing-our-waste/
[51] https://www.smh.com.au/national/nsw/promised-westconnex-park-site-in-sydney-s-inner-west-highly-contaminated-20200908-p55tiz.html
[52] https://www.perthnow.com.au/business/westconnex-and-northconnex-workers-risked-exposure-to-dangerous-dust-ng-34a0496c331ad2ea141ce5717ded960f
[53] https://www.theage.com.au/national/victoria/secret-epa-reports-reveal-pfas-problem-on-west-gate-tunnel-20200523-p54vr1.html
[54] https://www.smh.com.au/national/nsw/promised-westconnex-park-site-in-sydney-s-inner-west-highly-contaminated-20200908-p55tiz.html
[55] https://www.sydneywater.com.au/SW/water-the-environment/how-we-manage-sydney-s-water/wastewater-network/northside-storage-tunnel/index.htm

and out to Middle Harbour and a great deal of effort and expense has already been born by government to rehabilitate the area and cap the site. Locals recall that once contained and capped decision makers at the time stated that it metaphorically was marked as "never to be disturbed" due to the seriousness of the contaminants contained and the difficulties containing it.

C.4 There are significant property risks due to subsidence issues at Naremburn and widespread drawdown across the route. It has been reported to Council and the local Member in and around the heritage area which is above the alignment of the tunnels. This clearly presents a risk to heritage and homes in the area around the tip site which was amongst the first settled on the North Shore. The area is highly significant and has been nominated for consideration on the Federal Heritage register in conjunction with the Long Bay Gully Catchment.

C.5 Significant drawdown risks widespread damage. Additionally, the EIS demonstrates that there will be a very significant drawdown along the Northbridge Peninsular, around Naremburn and Flat Rock Gully. This drawdown, presumably due to the unusual geology and hydrodynamics of the area, puts both natural ecosystems and homes at greater risk regardless of the tunnel depth. It also risks project delays and additional cost due to unforeseen factors and the need to manage large volumes of water in the area. Engineers have advised that the tunnel should be fully lined to minimise the environmental and property impact. It does not appear that this has been factored in and therefore the considerable cost of lining may not have been included in the final BCR.

Further information has been gleaned about the drawdown issues through a freedom of information request which has revealed that an independent reviewer has significant issues with the modelling that has been done to date and confirms that there will be significant drawdown impacts.

"Predicted drawdown at locations of known contaminant sites are presented in table 16-14 of the main EIS. However, there is no assessment of uncertainty in the drawdown predictions or discussion of the changes in rate and direction of groundwater flow that the drawdown will induce. An updated assessment of potential contaminant migration should at minimum discuss the predicted changes in water level (drawdown) and gradient (rate and direction of flow) at each location with consideration of predictive uncertainty. Where adverse contaminant migration risk is greatest, potential contaminant transport risk should be further assessed using particle tracking or simulations of contaminant transport."

C.6 Aboriginal heritage is at risk and appears to have been insufficiently scoped and risk assessed with concerns around undiscovered finds, the cultural importance of the area to the Gammeraygal and potential damage to key remaining sites at Flat Rock, Balls Head and Clive Park. Flat Rock Gully is a place of significant importance and is appears to be the final Aboriginal settlement recorded on the Lower North Shore[56]. Many Highly Sensitive sites have been identified as being potentially impacted along the alignment and around work sites. The project relies 100% on procedural integrity to manage the impacts to these sites – it does not appear that design changes have been considered to avoid these important areas. The Gammeraygal completely disappeared from the North Shore of Sydney – we have a responsibility to preserve the few sites and places left that attest to their presence. Further information can be found in the submission of the Metropolitan Local Aboriginal Land Office[57]

[56] Naremburn Matters, Gammeraygal Close to Home, September 2021.
https://www.naremburnprogress.org.au/~narembur/files/6816/2988/3008/NM_Vol_18-3_WEB2.pdf
[57] https://www.parliament.nsw.gov.au/lcdocs/submissions/72590/0475%20Metropolitan%20Local%20Aboriginal%20Land%20Council.pdf

(d) the consideration of the governance and structure of the project including the use of a 'development partner' model,

D.1 Information about the construct of the development partner model is not publicly available

There is little information in the public arena with which to make comment which is a problem in and of itself. What information is available appears to be a convoluted web of transactions aimed at funding these projects under processes that seem to have little association with a business case review. Whilst engaging a development partner to help manage such a complex project appears to make sense on the surface it is not clear what contractual obligations will be put in place and what the cost/benefits of such an action may be.

The Development Partners shortlisted all involve overseas companies, and it is noted that one contains a consortium member responsible for producing the Environmental Impact Statement which raises questions about objectivity and Conflict of Interest. Shortlisted organisations are Bechtel Infrastructure (Australia), Harbour West Partners (Consortium comprising Macquarie Capital, Jacobs and RPS) and Laing O'Rourke Australia.[58] The location of key decision makers and expertise overseas also brings to question the effectiveness of this approach during COVID-19 and ongoing quarantine restrictions as well as the knowledge these companies have of a sensitive environment and the use of the area. Local knowledge would better navigate the risks involved.

What is known is that the government intends to break the project up into 4 different contracts: Warringah Freeway Early Works, Warringah Freeway Main Works, Western Harbour Tunnel and Beaches Link/ Gore Hill Tunnels. The issue with this approach is that it repeats the concerns raised by the NSW Auditor General in their report to Parliament entitled: "WestConnex: changes since 2014" regarding the Westconnex project:

"Following that review, TfNSW registered each of the components of WestConnex with INSW as individual projects, rather than keeping WestConnex registered as a program or mega-project. This is not inconsistent with the IIAF and all WestConnex related projects, including Sydney Gateway and the Network Integration Program, have undergone independent assurance reviews as individual projects under the IIAF.

Once a program like WestConnex is broken down into its composite parts, there is no requirement for the sponsor agency (TfNSW) or INSW to provide independent assurance on the program as a whole until it is completed. This is then done as part of the Gateway review for benefits realisation, which examines whether project benefits are being measured and meet expectations. These individual projects are, in themselves, significant in scale and complexity. While addressing them as discrete components for the purposes of the assurance review process can be justified, **the absence of strategic, holistic reviews of WestConnex allows for total costs and benefits to become opaque and avoid scrutiny**. Programs of this scale require greater ongoing transparency on total costs and benefits in order to ensure confidence they will meet intended objectives within budget."

We strongly believe that the cost/benefits for the entire Western Harbour Tunnel and Warringah Freeway along with the Beaches Link and Gore Hill Freeway projects are becoming obscured in the same way. These projects were originally presented as one program of works but are now several. Each stage provides for the next ie) the Warringah Freeway project includes infrastructure for both Western Harbour and Beaches Link tunnels so it is clear they are not separate entities. The contract for the Warringah Freeway project for example has just been awarded when whole of program benefits are not yet clear as Beaches Link has not yet had a business case assessment. The case that this project is one program of works is evidence by the fact that contracts are being awarded as one project i.e technical advisor contract

[58] https://www.transport.nsw.gov.au/news-and-events/media-releases/development-partner-shortlist-for-western-harbour-tunnel

since 2017[59]. Note the Warringah Freeway Main Works contract was awarded 2 days before the opening of the Parliamentary Inquiry.

The original justifications for the project also lack transparency; interestingly an early notification to the community in 2017 stated that the project was identified as a "priority infrastructure project for Sydney" in the 2012 Long Term Transport Master Plan however no such conclusion was made within the document. The solution for the Mona Vale to CBD congestion was stated as a BRT with the only reference to a tunnel being a bus tunnel:

"Transport for NSW has been identifying and testing potential options for both corridors. The north-south and east-west corridors are shown in Figure 4.55. These options range from short term investments such as better bus priority on the corridors, to long term options such as separated lanes and a bus tunnel under Sydney Harbour. Options include various combinations of dedicated bus lanes (in the kerb lane or on the median lane), peak tidal flow arrangements and supporting infrastructure investments including options that replace existing bridges (at the Spit and Narrabeen) with wider bridges (including possible 'clip-on' options) and a tunnel to bypass Military Road."[60]

These projects do not constitute a "bus tunnel" with buses given the same priority as personal vehicles. How the project evolved from a BRT proposal to a toll road tunnel is not clear.

D.2 The nature of the Early Works Alliance between Transport for NSW and 3 private organisations is not transparent

An early works contract was established earlier this year much to the surprise of the community. There does not appear to have been a transparent tender process and the scope of the work under the contract seems to have been expanding over-time. It was understood the early works would only involve tree trimming for example[61], but the work is now far more extensive covering over 500+ tree removals and extensive preparation works around the Warringah Freeway[62]. When the community has thought they were contacting Transport for NSW they have received a response from the Sydney Program Alliance and so there appears to be no delineation between the proponent and the contractors resulting in limited avenues for the community to resolve issues. Several members of the community have raised concerns regarding overseas owned companies being in an alliance agreement with Transport for NSW and the lack of transparency around that arrangement particularly around the highly sensitive nature of the work being undertaken ie) relocation of communications.

D.3 There are significant and growing ESG concerns:

- **Environment and Sustainability:** there is little benchmarking against objective criteria and there are substantial and widespread environmental impacts. When compared to a mass transit option, the projects sustainability profile is poor. A metro option Dee Why to Chatswood is reported as taking 52,240 VKT's off the road whereas this project increases VKT's considerably. The EIS clearly demonstrates that the waste, water usage and emissions profile of both the build and ongoing operations is high as are the consequences for the environment when compared to recent Metro projects in the area. The current Metro crossing of the Harbour, for example did not select an immersed tube design due to concerns around the environmental impacts of such a crossing and the contaminants present in that section of the Harbour which may be disturbed with devastating effect on the environment.

- **Social:** the project comes at a significant social cost for example:

[59] https://www.wsp.com/en-AU/news/2021/another-win-for-wsp-that-helps-connect-sydney-to-the-northern-beaches
[60] https://www.transport.nsw.gov.au/sites/default/files/media/documents/2017/nsw-transport-masterplan-final.pdf pg 154
[61] https://roads-waterways.transport.nsw.gov.au/projects/01documents/western-harbour-tunnel-beaches-link/western-harbour-tunnel-beaches-link-community-update-2021-03.pdf
[62] https://media.caapp.com.au/pv45oy.pdf

Toll roads are increasingly seen as having a high social burden[63] Adding tolls to existing and new roads (particularly mandatory tolls for Harbour crossings) limit access to jobs by making travelling to work more expensive. Cash back schemes do not address the growing cash flow issue workers are experiencing and underwriting private toll road contracts whilst locking into decades of increasing toll costs is not an effective or fair use of taxpayer's funds - particularly when the community and generations it will serve perceives little benefit. The EIS confirms that tolls will likely be applied to ALL Northbound Harbour crossings and states that *"The potential introduction of northbound tolling where it currently does not exist, may add expense to businesses, employees and customers crossing Sydney Harbour."*

Impact of Chosen Route: the location of this project is highly controversial, through Sydney's largest school's zone and sensitive Harbour and foreshore environments. It has a high perceived and actual environmental and social cost. Communities will be divided during years of heavy construction works, a very substantial number of noise exceedances are documented at parks and open spaces and pollution stacks will loom over communities – the EIS demonstrates that the visual impacts will be seen across many suburbs. These and other factors create a deterioration in community wellbeing across the many suburbs impacted which outweigh any claimed and poorly evidenced benefits across a wide area.

Health Risks: Silica and Contamination Risks to Workers and Community: Concerns have been raised about the extent of work to be completed through sandstone and the resultant Silica Risk to workers and community as well as the risks of working in and through sites on known contamination. There are dozens of sites required to support the project and these sites exist very close to homes, schools and parks with inadequate buffer zones. The EIS admits dust is difficult to manage and a certain amount of dust impact is to be expected.

Mental Health: The EIS notes that stress, noise, the length of works (up to 8 years) and property acquisition may create considerable fatigue and have a mental health impact. Given the highly residential route thousands of homes (the number and location have not yet been stated however the EIS confirms the process) will have their substratum acquired between Rozelle and Balgowlah. Anecdotally (based on private Facebook group discussions) this process has created difficulties for some homeowners trying to sell homes in the Inner West and has affected house prices. This uncertainty at a time of greater uncertainty during COVID-19 has the potential to create a great deal of stress and a high mental health burden particularly where job losses have been felt.

- **Governance frameworks and processes to date have been lacking**

Project Risk: project risk has been considered far too late into planning. Predominantly route selection relied on an assessment of technical viability, length and residential perception but failed to sufficiently consider the significant risks inherent in the route and methods chosen. The scoping documents suggest a possible lack of knowledge around the route selected and engagement with community groups and experts who understood the area. Costs that can be saved in terms of length of build may well be overtaken by the management of social and environmental risks associated with dredging the harbour, PFAS handling, heavy construction across school zones, complexity associated with plugging into the Warringah Freeway, a dive site in a large catchment housing a legacy landfill site etc Had risk been appropriately scoped from the outset it would have been apparent that another route selection away from many of these issues would have been reduced risk and cost considerably. Additionally, risk assessment and management is now being passed onto contractors with a large majority of contamination work being limited to inadequate sampling or desk top reviews.

Complexity of responsibility and accountability the framework for managing assurance and governance is not clear with multiple areas of government involved and many contracts. With the project being split up into multiple stages and contracts there is a higher risk to community and the project that there will be difficulties manage the various overlapping stages and lines of communication. Cammeray for example will be subject to 4 stages and potentially multiple different companies/ project teams managing phases at the same location over 7 years. Already Early Works issues are arising with a lack of clarity around accountability and key benchmarks. Transport for NSW has informed the community that contamination

[63] https://www.afr.com/companies/fares-taking-their-toll-on-sydney-drivers-20190226-h1bq4j

on site is a contractor responsibility with appropriate management to be determined by the contractor. This is contrary to what the community had been led to believe via the Conditions of Approval and assurances that there would be tight oversight by government departments. Unsatisfied by this response the community have approached the EPA who have stated that it is the landowners or contractors' responsibility to notify. Community members have also contacted council who have referred the matter back to Transport for NSW – who is part of the Program Alliance. The fact that the community cannot easily determine clear lines of responsibility around something as serious as contamination does not send a signal that the project will be well managed into the future.

Conflict of Interest Issues are a key community concern: The organisation contracted to prepare the contamination and Aboriginal Heritage reports for the EIS is one of partners in the Sydney Program Alliance who won the contract for the Early Works according to signs on-site. Given that Transport for NSW is now stating that the contractor is responsible for determining the appropriateness of contamination testing the community understandably sees this as a conflict of interest. Contamination testing and mitigation can add considerable cost to a project, and it is in the contractor's best interest to minimise these costs. The public expects that scientific protocols for undertaking a statistically valid analysis of the site to be developed independent of the contractor and assurance oversight is maintained by Planning Compliance/ EPA. Questions have also been asked about why an overseas owned organisation is responsible for the assessment of Aboriginal heritage and again one of the companies who has one the contract completed this work. Additionally, concerns were raised during the consultation stage of the project that several of the representatives appointed to consult with the community had very recently worked for toll road operators or appeared to work for firms that stood to benefit. This perceived conflict of interest lead to a mistrust in the consultation process alongside other deficiencies in this process. **The Auditor-General's Performance Report[64] into NorthConnex noted that**

"*The governance plans for NorthConnex state that '****All participants*** *in the assessment process* ***(including advisors****) must have* ***no conflicts*** *of interest, which would, or may appear to, adversely affect the impartiality of the process. Project team members are responsible for bringing any actual or potential conflict of interest to the attention of the steering committee Chair or Probity Adviser'.*

It is unclear how far these guidelines extend however given that the reports written that underpin the EIS also form a key part of project scoping and risk assessment it would be appropriate to ensure there is separation between advisors contracted to scope the project and advise the community and those bidding on or winning project contracts. There should also be a greater degree of separation between technical advisors preparing site reports/ testing and the organisations awarded contracts.

The obvious conflict of Interest between Planning Minister and the project has also been raised as a concern. As the ultimate approval authority for both projects (the Beaches Link can't proceed without the Western Harbour Tunnel) the Community feel that it is inappropriate that someone who lives in the area that is reported to gain from the project (no matter how questionable that claim is) should have sole responsibility for determining the approval.

D.4 Justifying toll roads due to meet the contractual obligations of another toll roads is a never-ending cycle which may lead to private profit being placed above the public good

There is an ongoing perception that the Western Harbour Tunnel is needed to "feed" an expected underperforming section of WestConnex (ie a project that has been built with a known failure point). We would urge the committee to consider the following:

If this was true at the time of planning WestConnex is it still true now with road changes since the EIS and Gateway going ahead of Western Harbour Tunnel etc? Is building in a failure point into a project simply a way to generate the need for more toll roads, if so where will this process end? Is there not then a need to prop up Beaches Link given it's poor expected through put and high cost? Where will the Sydney toll roads end?

[64] https://www.audit.nsw.gov.au/sites/default/files/pdf-downloads/2017_Jun_Report_North_Connex.PDF

Is the perceived need being driven because of a lack of viability across the whole of WestConnex if the Western Harbour does not go ahead or a reduction in profit for a private operator? Can WestConnex meet it's toll road obligations as a whole without the Western Harbour Tunnel? Are decisions being driven to sure up private operator profits by increasing trips rather than the cost/benefits of the project itself? Does the project in and of itself meet the public interest test?

Do the ends justify the means i.e. the gains delivered by topping up one part of the network may in fact be offset by the losses associated with an under-performing Beaches Link or congestion and health costs around the Warringah Freeway i.e. is the government better to bare the financial consequences rather than build a poorly planned project to support another poorly planned project and face a greater consequence?

The public expectation is that projects are independently assessed and can stand up on their own merits rather than be interconnected projects that area always looking for the next project which spread motorways across Sydney. In the submission to WestConnex[65] expert planner Mat Hounsell stated that

"*Westconnex cannot meet the goals revealed to the parliament in October 2012, because it was never one project. Westconnex is a brand used to appropriate funds and to market a selection of previously rejected urban motorways to a sceptical public."*

It is not clear to the public where the branding ends (e.g.) almost every motorway has been claimed to be a "missing link") end and where objective planning processes that are in the best interest of the public begin.

D.5 It is not clear that Key Assurance steps are being met

There is **little transparency around the assurance process** in the public domain however it would appear from the outside looking in that the same processes are being followed as have occurred in other toll road projects. In reviewing NorthConnex, The Auditor-General found that:

"*The decision to proceed from detailed proposal (stage 2) to negotiating the final binding offer (stage 3)* ***was not informed by a business case gateway review or stage 2 probity report****. The steering committee completed these key assurance steps after the NSW Government announced the decision to proceed to stage 3"*

and recommended that

"*a business case to be prepared, and* ***a business case gateway review completed, as part of the assessment of the detailed proposal*** *(currently stage 2 and probity reports must be completed and considered before the decision to proceed to the next stage)."*

The reasons for public perception that these steps are not being done adequately for the current projects include the widespread advertising of jobs associated with the project well before planning approval, early works contracts being committed to soon after planning approval and the reluctance by the government to release a business case. It is also clear that a business case review for Beaches Link has not yet been completed. On 30th January 2020 Transport for NSW advertised a job for Technical Director – Western Harbour Tunnel and **Beaches Link**, 24th March 2020 a Delivery Lead was advertised stating that

"It's no secret that you will encounter challenges in this role the stakes are high and the pressure is on as we deal with budget and time constraints, interface issues and public scrutiny".

This advertisement did not fill the community with confidence that calm and measured steps are being taken to assure both the project and the processes around the project. The job descriptions gave a sense of a project being rushed through and commitments being made in advance of key critical assurance steps. This concern has been further exacerbated by the appointment of an Early Works contractor in what appears to be an attempt to move the project forward ahead of key steps. There was no public transparency when it came to the issuing of the early works contract, and it is not clear how this contract fits with the gateway review process. This is very concerning to the community as the

[65] https://www.parliament.nsw.gov.au/lcdocs/submissions/62121/0426%20Mr%20Mat%20Hounsell.pdf

Early Works include the destruction of a large number of trees, loss of green space and works on land identified as having a moderate to high risk of contamination.

It is questionable as to whether **"value for money" can be accurately assessed** at this stage due to considerable unknown factors, a lack of validated benefits and identified but under scoped risk. The Infrastructure NSW Business Case Summary[66] states

"The Updated Reference Design (2019) adopts Immersed Tube Tunnels (IMT) for the Western Harbour Tunnel and Beaches Link projects and the geotechnical conditions of IMT sites have been investigated. Despite this, there remains the ***possibility of unexpected seabed and harbour conditions****. The Program involves integrating Western Harbour Tunnel and Beaches Link projects with the broader motorway network. This is* ***complex technical and logistical work with ongoing risks,*** *including traffic impacts, that will require careful management."*

Other risks include but are not limited to unexpected Aboriginal Heritage finds, greater than predicted heritage impacts, unpredictable and under-scoped geology, high areas of hydrology, vastly under assessed risk at Flat Rock Gully, PFAS identified at Harbour sites, a lack of planning around contamination and disposal, widespread substratum acquisition processes and strong community opposition, education, and expectation around compliance.

D.6 Investing in these projects does not appear to meet the principles of Fiscal Responsibility

According to the Fiscal Responsibility Act 2012 – Section 7 the government is obligated to make decisions based on principles of sound financial management. We do not believe that this project aligns with these principles on several levels.

> ***Extract:***
>
> ***"7 Principles of sound financial management***
>
> *(1) The policy objectives of the Government should be pursued in accordance with the principles of sound financial management set out in this section in order to support the object of this Act.*
>
> *(2) Principle No 1 is responsible and sustainable spending, taxation and infrastructure investment, including:*
> *(a) aligning general government revenue and expense growth, and*
> *(b) stable and predictable taxation policies, and*
> *(c) investment in infrastructure that has the highest benefit for the community.*
>
> *(3) Principle No 2 is effective financial and asset management, including sound policies and processes for:*
> *(a) performance management and reporting, and*
> *(b) asset maintenance and enhancement, and*
> *(c) funding decisions, and*
> *(d) risk management practices.*
>
> *(4) Principle No 3 is achieving intergenerational equity, including ensuring that:*
> *(a) policy decisions are made having regard to their financial effects on future generations, and*
> *(b) the current generation funds the cost of its services."*

In determining the "**highest benefit**" to the community; comparative assessments with alternatives has not been completed. The highest benefit can only be determined if a substantive comparative assessment is completed. Clearly based on submission responses the community does not perceive this project to be of the highest benefit based on reasonable and well researched information available in the public domain.

[66] http://www.infrastructure.nsw.gov.au/media/2528/western-harbour-tunnel_bc-summary-may-2020.pdf

In relation to "**effective financial and asset management**" the risk management practices have been questioned within this paper at length both in terms of assessment and early management. Whilst the risks identified are focussed on construction and operational risks (as information is not available to comment on other areas of risk) these have an impact on the accuracy of the costing of the project. Additionally, funding decisions have been very unclear to the community and funding seems to have bene allocated from many different sources over time, possibly before business case review and gateway assessment. Some of these are queried throughout this section.

In relation to "I**ntergenerational Equity**" the impact of a model based on concessions and guarantees (see B.11) does not appear to be adequately considered. According to the "Report on State Finances 2019-20"[67] the following guaranteed concessions have been given agreed to already in NSW ie) the burden of paying for these roads and future toll roads is significant for several generations and the cumulative impact should be considered. The idea that road infrastructure is able to be "brought forward" presupposes that future generations want roads and that the benefits of a road project outweigh it's ongoing costs – something that the Sydney community is increasingly questioning. There is good evidence in the public domain that future generations want to see a shift toward more sustainable and less expensive transport models and are significant adopters of active transport and flexible work arrangement.

D.7 Use of Restart Fund – the timing of the Business Case Assessment

The Restart Fund has been previously used for funding. The money trail is complex and difficult for the community to understand.

Funds were allocated in the 2019/20 budget from the Restart NSW Fund (under the Rebuilding NSW Plan)

B.1 Rebuilding NSW plan

The $20 billion Rebuilding NSW plan is summarised in Table B.1 below. Table B.1 details the commitments and reservations under the Rebuilding NSW plan, as at the 2019-20 Budget. The Rebuilding NSW plan forms part of the Restart NSW Fund.

Table B.1: Rebuilding NSW plan as at the 2019-20 Budget

Priority Areas	Project/Program	Total Funding $m	Commitments $m	Reservations $m[(a)]
Urban public transport	Sydney Metro City and Southwest	7,000.0	7,000.0	0.0
	More Trains, More Services	1,000.0	1,000.0	0.0
	Parramatta Light Rail	600.0	600.0	0.0
	Bus Priority Infrastructure (including B-Line)	300.0	290.5	9.5
Urban roads	Western Harbour Tunnel and F6	1,100.0	623.0	477.0
	Pinch Points and Clearways	400.0	396.0	4.0
	Smart Motorways	400.0	385.0	15.0
	Gateway to the South	300.0	295.0	5.0
	Traffic Management Upgrades	200.0	189.0	11.0

The following was reported in the media on 17th November 2020 with regard to the 2020-21 Budget

*"An extra $2.7 billion has been allocated to infrastructure commitments in Restart NSW, including more than $477 million for the **Western Harbour Tunnel** and M6 project. While there is no mention of the Northern Beaches Link in the budget, a government spokeswoman said development money was allocated as part of the Western Harbour Tunnel project, with an **environmental impact statement expected to be released before the end of the year**. $356 million ($5.7 billion over*

[67] https://www.treasury.nsw.gov.au/sites/default/files/2020-11/2019-20%20Report%20on%20State%20Finances_web%20version.pdf

four years) for the planning and reconstruction for the Western Harbour Tunnel and Warringah Freeway Upgrade as part of the Western Harbour Tunnel program"[68]

The criteria for the use of the Restart Fund[69] is that a Business case Review needs to have been completed by Infrastructure NSW who recommend the project prior to funding allocation. Given the business case review would have had to take place prior to the release of the EIS it is fairly evidecet that if it was reviewed it was based on

"At the time, the New South Wales Government claimed that it established the fund to enable funding and delivery of high-priority infrastructure projects that improve the State's economic growth and productivity. The fund is legislatively governed by the Restart NSW Fund Act 2011. Under the Act, ***Infrastructure NSW is responsible for assessing and recommending Restart NSW projects*** *that improve the economic growth and productivity of New South Wales across all sectors."*

And that 30% of the funds needs to be allocated to regional projects. As at 23rd September 2020 the Upper House stated that:

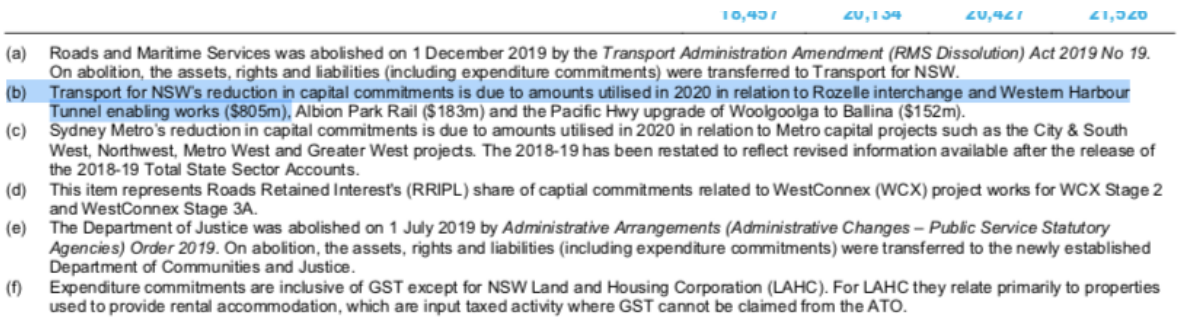
"the most recent economic data obtained through the budget estimates process show that a mere 18.9 per cent of Restart NSW is going to rural and regional areas."[70]

An Infrastructure NSW business case summary was first published in May 2020[71] however it appears, at least to the public, that funding allocations have been made from this fund prior to this date and therefore prior to Infrastructure NSW reviewing the business case.

D.8 Other Current Funding

Funding for this project to date seems to have come from various sources and there are concerns that money intended for other purposes is being diverted into this project in advance of gateway review completion i.e., a business case review, risk assessment etc. For example, in the 2020-21 budget a footnote was made that $805 million was allocated from the Transport for NSW capital commitments for enabling works. It is not clear to the public how and when gateway reviews are being completed and whether funding is being approved in line with good governance practices.

Note: Under Expenditure Commitments related to Transport for NSW Line Item



18,457 20,134 20,427 21,526

(a) Roads and Maritime Services was abolished on 1 December 2019 by the *Transport Administration Amendment (RMS Dissolution) Act 2019 No 19*. On abolition, the assets, rights and liabilities (including expenditure commitments) were transferred to Transport for NSW.

(b) Transport for NSW's reduction in capital commitments is due to amounts utilised in 2020 in relation to Rozelle interchange and Western Harbour Tunnel enabling works ($805m), Albion Park Rail ($183m) and the Pacific Hwy upgrade of Woolgoolga to Ballina ($152m).

(c) Sydney Metro's reduction in capital commitments is due to amounts utilised in 2020 in relation to Metro capital projects such as the City & South West, Northwest, Metro West and Greater West projects. The 2018-19 has been restated to reflect revised information available after the release of the 2018-19 Total State Sector Accounts.

(d) This item represents Roads Retained Interest's (RRIPL) share of captial commitments related to WestConnex (WCX) project works for WCX Stage 2 and WestConnex Stage 3A.

(e) The Department of Justice was abolished on 1 July 2019 by *Administrative Arrangements (Administrative Changes – Public Service Statutory Agencies) Order 2019*. On abolition, the assets, rights and liabilities (including expenditure commitments) were transferred to the newly established Department of Communities and Justice.

(f) Expenditure commitments are inclusive of GST except for NSW Land and Housing Corporation (LAHC). For LAHC they relate primarily to properties used to provide rental accommodation, which are input taxed activity where GST cannot be claimed from the ATO.

D.9 Historic Funding, Estimates and Assessments

The cost estimates for the project appear to have varied wildly over time with a project now being quoted somewhere in the realm of $14-$16 billion. In 1997, Tony Abbott[72] then Parliamentary Secretary to the Minister for Employment, Education, Training and Youth Affairs, raised a Grievance Debate around transport solutions for the Northern Beaches. Mr Abbott announced that a Northern Beaches toll road would only cost a fraction of the cost of what we now know a road tunnel to be:

[68] https://www.smh.com.au/national/nsw/nsw-charges-ahead-with-107-billion-infrastructure-pipeline-despite-record-deficit-20201117-p56fan.html
[69] http://www.infrastructure.nsw.gov.au/restart-nsw/
[70] https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#/docid/'HANSARD-1820781676-83130'
[71] http://www.infrastructure.nsw.gov.au/media/2528/western-harbour-tunnel_bc-summary-may-2020.pdf
[72] https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;db=CHAMBER;id=chamber/hansardr/1997-06-16/0091;query=Id:%22chamber/hansardr/1997-06-16/0030%22

"*Engineering estimates are that this Mosman bus route and road tunnel, with associated improvements, would cost about* ***$400 million*** *to build. The state government should spend that money because I believe that the people of Warringah are just as entitled as the people of any other part of Sydney to their fair share of the state transport dollar. But, if the state government is not prepared to go down that path, there are other ways. It could be funded by a toll. The estimates are that it could be funded by a toll without any* ***increases in existing traffic, without any increases in population and without any increases in housing density****."*

The EIS clearly demonstrates that these claims cannot be applied to the current proposal.

As far back as 2014, the Baird government announced $1.1 Billion in funding for the Western Harbour Tunnel.[73] It is not clear how this funding has been utilised and it does not appear that a business case was in place at this point before funding decisions and key plans were implemented

"*By 2018 with a new premier the Western Harbour Tunnel project has been downgraded to an investment decision. INSW advised that the F6 & Northern Beaches Link should be* ***explicitly compared against investment in alternative high return public transport projects before proceeding****. INSW states that the WHT business case wasn't completed in February 2018 which means it had not gone to cabinet. The Westconnex Stage 3 included a very complicated Rozelle Interchange in it's 2017 EIS because of the Western Harbour Tunnel.* ***Therefore, the government included an expensive addition to the Rozelle Interchange to support a Western Harbour Tunnel which did not have a business case or approval."***[74]

D.10 Sale of Remaining Stake in WestConnex

The 20-21 Budget Papers Stated that the Western Harbour Tunnel and Warringah Freeway indicated that the program would be funded by the sale of the government's remaining share of WestConnex.

"*On 6 November 2020, the NSW Government approved the sale of the State's remaining 49 per cent stake in WestConnex. An estimate of the financial impact cannot be made at this stage. Proceeds from any potential transaction will be invested into the* ***NSW Generations Fund as required under the NSW Generations Fund Act 2018***"

"*Over the last decade, New South Wales has been leading the nation in balance sheet reform, including our successful asset recycling program. This Budget will continue the Government's program of asset recycling, with the sale of its residual 49 per cent share of WestConnex and a scoping study of Lotteries duties. Asset recycling proceeds will be invested into the NSW Generations Fund, a debt offset fund, which supports the Government's fiscal repair program while giving it capacity to support ongoing infrastructure investment. This approach will ensure that the State's balance sheet remains protected despite the effects of the COVID-19 recession. This asset recycling will help support the Government's record $107.1 billion infrastructure program. Since the 2019-20 Budget, the Government has committed to city-shaping and innovative projects such as Sydney Metro West, Sydney Metro Western Sydney Airport,* ***Western Harbour Tunnel and Warringah Freeway*** *Upgrade and digital investments. This investment into productive infrastructure will create thousands of jobs."*

We oppose the sale/ the use of funds for these toll road projects for the following reasons:

- The sale is likely to go be awarded to a private operator who already has a monopoly share of toll roads in Sydney
- 100% private ownership limits the government's ability to implement mechanisms to change driver behaviour, address congestion and pollution
- There is a conflict between a private toll road and optimal public transport systems; there is an obvious conflict between toll roads and mass transit outside the toll road –particularly in dense city and inner urban areas. Investment in toll roads limit the governments opportunity to invest in mass transit options particularly where the mass transit option would compete with the ability to reach concession targets and the government has guaranteed the concession. Toll roads should not be the first option when it comes to addressing congestion in and around major cities. The answer often offered to this concern is that toll roads include public transport however they do not prioritise public transport and thereby are not the most effective public transport system

[73] https://www.9news.com.au/national/baird-spruiks-20bn-cash-splash-in-nsw/aaaf33c8-5d0c-4d30-ad50-d34186427f1a
[74] https://www.parliament.nsw.gov.au/lcdocs/submissions/62121/0426%20Mr%20Mat%20Hounsell.pdf

compared to a dedicated option which creates mode shift. Public transport is simply tacked on. Integrated bus lanes within toll roads cannot be viewed as the optimal public transport solution as buses travel at the same speed as cars and are subject to the same congestion conditions. A dedicated public transport solution would provide a far higher transport benefit for a greater number of people.

- Sydney already has the largest private toll road system in the world and there are clear signs that we are toll saturated – selling WestConnex will only generate more toll ways. The EIS indicates that these tunnels will need to be funded via **two-way tolling on ALL Harbour crossings which will in turn create greater toll avoidance across the rest of the network.** Anecdotally the Inner West are experiencing a high level of toll avoidance. Workers needing to cross the Harbour are more likely to avoid WestConnex if two-way tolling is put in put in place on all Harbour crossings ie) toll roads that can be avoided will be to afford the tolls that can't be avoided.
- Norway has successfully used **public** toll ways to help fund transition to EV's – there is an opportunity cost involved in selling off public road space. In Sydney, we are facing the prospect of both tolls and additional km charging making Sydney an increasingly more expensive place to live. If the government provides cash back schemes that burden is simply transferred to the tax-payer. The economic disbenefits and disincentives to global companies wanting to make Sydney a base-needs to be considered where Sydney is already one of the most expensive places in the world. World leading cities are not investing in urban tolled motorways.

D.11 Infrastructure Concession and Guarantee Agreements

Many concessions are already in place. The cumulative financial risk of this should be considered along with the equity/ burden to future generations.

Infrastructure subject to the arrangement	Concession period (duration in years and final year)
Transport	
• M5	34 / 2026
• Sydney Harbour Tunnel	30 / 2022
• Parramatta Transport Interchange	23 / 2030
• Airport Line Railway Stations	30 / 2030
• Sydney Light Rail	17 / 2036
• Sydney Metro Northwest, Operations, Trains and Systems (OTS)	15 / 2034
• Cross City Tunnel	30 / 2035
• Waratah Rolling Stock	30 / 2044
• Lane Cove Tunnel	41 / 2048
• M7	43 / 2048
• M2	51 / 2048
• NorthConnex	28 / 2048
• Eastern Distributor	48 / 2048
• WestConnex – Stage 1	43 / 2060
• WestConnex – Stage 2	40 / 2060
• WestConnex – Stage 3	38 / 2060
• Chatswood Transport Interchange	50 / 2064

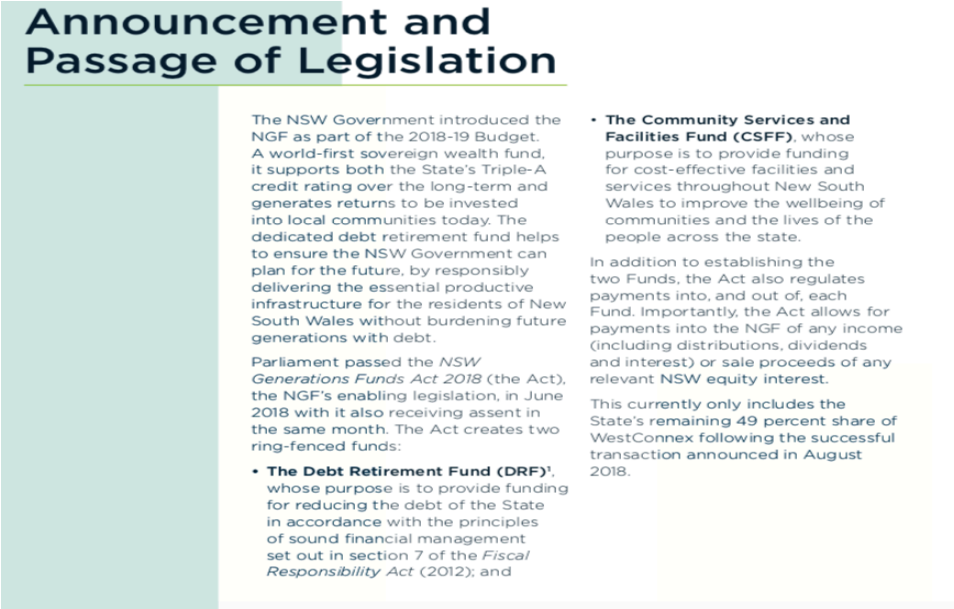
A large number of guarantee agreements are already in place. The cumulative financial risk should be considered.

- The State has guaranteed the obligations and performance of various statutory authorities under contracts with private sector parties. These guarantees are considered unlikely to ever be exercised and, in some cases, are limited to financial obligations only. The current guarantees in place are:
  - Cross City Tunnel
  - Eastern Creek Alternative Waste Treatment Plant (The Crown Entity holds a guarantee, a contingent asset, which fully offsets this contingent liability)
  - Eastern Distributor
  - Illawarra and Woronora Water Treatment Plant
  - Lane Cove Tunnel
  - Long Bay Prison and Forensic Hospital
  - M2 Motorway
  - Macarthur Water Filtration Plant
  - Mater Hospital
  - New Grafton Correctional Centre
  - New Intercity Fleet
  - Newcastle Integrated Service Operator
  - North West Rail Link – Operations, Trains and Systems
  - NorthConnex
  - Northern Beaches Hospital
  - Olympic Multi-Use Arena
  - Orange Hospital Redevelopment
  - Prospect Water Filtration Plant and Treatment Works
  - Regional Rail
  - Royal North Shore Hospital Redevelopment
  - Suburban Rolling Stock
  - Sydney Growth Trains
  - Sydney Harbour Tunnel
  - Sydney International Convention, Exhibition and Entertainment Precinct
  - Sydney Light Rail
  - Sydney Metro City & Southwest: Operations, Trains and Systems, Trains & Systems
  - VISY Mill: Tumut Timber Supply Agreement
  - WestConnex
  - Western Sydney Orbital (Westlink M7 Motorway)

Further information which reflects our concerns regarding the governance structures, gateway reviews and comparison to past projects can be found at in one of our local school's submission to the Westconnex Inquiry: https://www.parliament.nsw.gov.au/lcdocs/submissions/62086/0395%20Cammeray%20Public%20School%20P%20and%20C.pdf

D.7 Does this project meet the criteria for use of the Generations Fund?

It is not clear how the funding of a private toll road serving a small section of the community falls within the intended use of the Generations Fund[75]? The intended use of the Generations Fund is outlined as follows:



Announcement and Passage of Legislation

The NSW Government introduced the NGF as part of the 2018-19 Budget. A world-first sovereign wealth fund, it supports both the State's Triple-A credit rating over the long-term and generates returns to be invested into local communities today. The dedicated debt retirement fund helps to ensure the NSW Government can plan for the future, by responsibly delivering the essential productive infrastructure for the residents of New South Wales without burdening future generations with debt.

Parliament passed the *NSW Generations Funds Act 2018* (the Act), the NGF's enabling legislation, in June 2018 with it also receiving assent in the same month. The Act creates two ring-fenced funds:

- **The Debt Retirement Fund (DRF)**[1], whose purpose is to provide funding for reducing the debt of the State in accordance with the principles of sound financial management set out in section 7 of the *Fiscal Responsibility Act* (2012); and
- **The Community Services and Facilities Fund (CSFF)**, whose purpose is to provide funding for cost-effective facilities and services throughout New South Wales to improve the wellbeing of communities and the lives of the people across the state.

In addition to establishing the two Funds, the Act also regulates payments into, and out of, each Fund. Importantly, the Act allows for payments into the NGF of any income (including distributions, dividends and interest) or sale proceeds of any relevant NSW equity interest.

This currently only includes the State's remaining 49 percent share of WestConnex following the successful transaction announced in August 2018.

As stated the project does not appear to meet the criteria around "Fiscal Responsibility" and it is not evident that it "improves the wellbeing and lives of the people across the State". The local communities in and around these toll roads and the information presented within the submissions attest to the many disadvantages to community that will result from the project and the generations to come. Given the density of the areas impacted and the fact that the projects cuts through Sydney's largest school zone, the Western Harbour and Beaches Link projects stand to create significant disadvantage at a very high cost to the taxpayer whilst benefiting few proportionally across the State. Given that the BCR is questionable and may not be achieved it stands to follow that these projects do not meet the criteria for the use of this fund. It also appears that the burden on the next generation is simply being transferred in one form to another with little net benefit to their future ie) debt is being replaced with tolls and guarantees. In addition to tolls future generations will receive dis-benefits in terms of increased pollution, localised traffic, reduced green space and more noise. There may be benefits to this approach where a project is urgently needed and there are clear benefits but, in this case, neither claim can be evidenced with the information available to the public.

Recently an article was published in the Financial Review[76] which confirmed the government's intention to use the fund to finance it's planned infrastructure spend:

"The proceeds will go into the fund for future generations of NSW citizens and the government will borrow cheaply at about 1.5 per cent to fund a massive $108 billion infrastructure program over the next four years."

There appears to be risk and uncertainty surrounding the operation of the fund with an ex-Macquarie executive stating

[75] https://www.treasury.nsw.gov.au/sites/default/files/2019-12/NGF%20Annual%20Report_FINAL.pdf pg 12
[76] https://www.afr.com/policy/economy/westconnex-sale-to-add-13b-to-nsw-generations-fund-20210809-p58h1e

"There is more that we do not know, and a future for the Generations Fund that is highly uncertain, so we need to know more about purpose, risks and governance."

(e)the extent to which the project is meeting the original goals of the project,

E.1 The Goals are vague

The goals of the project are vaguely stated and the project's ability to achieve them cannot be validated entirely based on information publicly available however below we have compared the claims to information that is available. The goals here are extracted from Infrastructure Australia's[77] most recent assessment under the heading of Proposal: *"The proposal is intended to address a range of problems and opportunities with transport, productivity and city-shaping dimensions:"*

E.2 The EIS demonstrates that the Project Goals will, in the majority, not be met

The Stated Goals of the Project according to Infrastructure Australia's Assessment are:

Goal 1: "Improve travel time and reliability on cross-harbour motorways near Sydney's CBD, including the Sydney Harbour Bridge and Sydney Harbour Tunnel"

The travel time savings claimed have not been validated as stated previously. Given daily traffic demand[78] on the Sydney Harbour Bridge does not materially "improve" overall from today's level (WHT EIS, App F table 4.1[79]) it cannot be claimed that this goal is satisfactorily met. The EIS does derive benefits for the Sydney Harbour Tunnel and Western Distributor; offsetting these improvements however is a significant increase on the Warringah Freeway, Gladesville Bridge and Anzac Bridge induced by the project. The project compares improvements to a future "do minimum' scenario to derive it's claims of improvement however this does not consider the opportunity for commuter behaviour changes and increased public/active transport to change future conditions i.e. there is an assumption built in that people will continue to behave as they did in 2016 and have the same transport modes. Throughout the analysis the 2016 data is presented separately and so it is difficult for the public to see what the advantages and disadvantages are when compared to today's congestion levels. Claims about the projects benefits need to be more clearly explained to the community and standards developed around how reports are presented so there is consistency and the ability to compare today to future to future with the project across all measures.

[77] https://www.infrastructureaustralia.gov.au/sites/default/files/2021-05/Western%20Harbour%20Tunnel%20and%20Warringah%20Freeway%20Upgrade%20-%20Project%20Evaluation%20Summary_1.pdf pg3-4
[78] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053418.925%20GMT
[79] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053358.379%20GMT

Daily Traffic Demands Now vs Future with Tunnels

Road	Location	Direction	Today (2016)	'Do something cumulative 2037'	Traffic Change
Sydney Harbour Bridge	Bradfield Highway	Combined	143,000	145,000	1%
Sydney Harbour Bridge	Cahill Expressway	Southbound.	39,000	38,500	-1%
Sydney Harbour Tunnel	Sydney Harbour	Combined	103,500	85,500	-21%
Gladesville Bridge	Parramatta River	Combined	94,000	117,000	20%
Western Harbour Tunnel	Birchgrove	Combined	0	106,500	n/a
ANZAC Bridge	Pyrmont	Combined	138,500	166,500	17%
Western Distributor	Sydney CBD	Combined	94,500	73,500	-29%
		Totals:	**612,500**	**732,500**	**16%**

Based on Table 9-4 Modelled daily traffic demands at key locations

In the "Response to Key Stakeholders" document the Harbour Bridge and Anzac Bridge is quoted as gaining a greater advantage than shown above presumably as it is being compared to future predicted growth (Do Minimum) rather than today's level of traffic – the general public however perceive the word "reduce" to mean an improvement in today's level of congestion however the project documents d not compare the base year directly with the post tunnel traffic level and so it is very difficult for the community or decision makers to perceive this.

"The traffic forecasting (refer to sections 8.4 and 9.2 of the environmental impact statement) carried out for the environmental impact statement also indicates that demand on the Sydney Harbour Bridge and ANZAC Bridge would reduce by about 16 per cent and 10 per cent respectively, as a result of the project. The forecast reduction on the Western Distributor is higher (37 per cent) as the section analysed serves a larger proportion of long-distance, regional trips than the Sydney Harbour Bridge and ANZAC Bridge. These trips are expected to benefit most from a switch to the alternative Western Harbour Tunnel."[80]

The EIS technical working paper on operational traffic states that the Western Harbour Tunnel

"would relieve congestion on the Sydney Harbour Bridge and Sydney Harbour Tunnel"

In terms of harbour crossing congestion, the EIS shows that the Harbour Bridge traffic will return to roughly the same level of traffic as today. The public perception however is being driven by media and communication i.e. Minister for Planning and Public Spaces Rob Stokes said

"the project will transform the way people move across our harbour, with ***traffic volumes to be reduced on some of Sydney's busiest roads****."*[81]

And Minister Constance states that

"This program will help to ease pressure on the road network and commuters, with a direct connection to WestConnex it will also ***bust congestion*** *on the* ***Anzac Bridge****, Western Distributor and* ***Sydney Harbour Bridge corridor****"*[82]

The public perception based on these statements and use of the word "reduced" throughout the project documents and marketing is that we will see congestion relief from **today's levels**. The reality however is that the projects do not bring down traffic on the Bridge Crossings and the Anzac Bridge will see far more traffic. There are mixed benefits and costs which appear to outweigh benefits in terms of congestion.

[80] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=EXH-2682%2120200914T005951.822%20GMT pg B3-7

[81] https://www.planning.nsw.gov.au/News/2021/Planning-approval-for-Western-Harbour-Tunnel

[82] https://www.transport.nsw.gov.au/news-and-events/media-releases/new-harbour-crossing-a-step-closer

The project documents state that there will also be a slight increase in demand when adding in the Beaches Link

"Overall, forecast demands across Sydney Harbour under the 'Do something cumulative' scenario (ie including Beaches Link) show that there would be a small increase in traffic demand across Sydney Harbour and some diversion from the Sydney Harbour Tunnel to the Western Harbour Tunnel as result of changes to travel patterns to and from the Northern Beaches." [83]

A modest increase in demand needs to be seen in the light of a significant increase in heavy vehicles induced to use the route through the Lower North Shore and a significant increase in traffic overall born by the already congested Warringah Freeway. The focus is on building freight capacity rather than busting congestion and addressing car reliance. Both capacity and congestion could be addressed via a bypass of the Warringah Freeway with a public transport and/or freight solution or if a toll road must be built a bypass road solution.

Heavy Vehicle movements across the Warringah Freeway Corridor ie the area feeding the North Sydney Harbour Crossings above and below ground (Bridge+ SHT +WHT) are due to climb:

12 000 daily in total in 2016 (Table 4.2, App F, WHT EIS)
15 200 daily in total by 2037 if no tunnels and no other options provided (Table 8-6, App F, WHT EIS)
19 000 by 2037 with the tunnels (Table 8-6, App F, WHT EIS)

This represents a **63%** increase from today's levels in heavy vehicle traffic on the North Shore by 2037 and **29%** increase from future projected traffic growth which wouldn't exist if the projects were not built. The Warringah Freeway is essentially being reconfigured into a freight super-highway in the middle of residential school zones.

The wisdom of developing this route into a major freight corridor and thoroughfare is questionable given the diesel pollution implications around schools and homes and the importance of the freeway as a local distributor. We should be looking for solutions which balance the needs of freight, commuters, and communities rather than serve one purpose at the expense of others.

Goal 2: "Improve travel times and reliability on access and bypass motorways around Sydney's CBD, including the Western Distributor, ANZAC Bridge and Eastern Distributor"

The travel time savings claimed have not been validated. Based on the travel demand figures however the main "access" motorway is the Warringah Freeway - the EIS demonstrates more traffic on this corridor as a result of the project and delays around it's approach. The Anzac Bridge continues to grow in traffic, but the Western Distributor improves. Overall, however the improvement of one access motorway and significant deterioration of others does not relate to a conclusion that this goal is met.

The Warringah Freeway will see an 18.16% increase in traffic by 2037 compared to today's level ie 2016 = 380,000 to 2037 = **449,000.**
Anzac Bridge will see a 17% increase in traffic by 2037 with the projects compared to today's level
Gladesville Bridge will see a 20% increase by 2037 with the projects compared to today's level
Cahill Expressway (leading to the Eastern Distributor) will only see a 1% drop with the projects compared to today's level of service
Western Distributor is the only access/bypass motorway that will see a drop with a 29% drop in traffic

Overall, this demonstrates there will be a net gain in traffic of 25.6% on access and feeder roads if the projects go ahead by 2037 when compared to today's congestion levels i.e. there is no net improvement and it is clear that the Western Harbour Tunnel and Beaches Link will induce demand into the area above natural growth projections as demonstrated later in this document. Whilst the project may meet the connectivity goal it undermines the urban amenity and reliability goal with a continued reliance of diesel fuel for freight transport, delays caused in the event of truck accidents and an overall deterioration in traffic around the Harbour Crossings.

[83] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053358.379%20GMT (page 254)

Goal 3: "Improve the resilience of the transport network around Sydney's CBD by reducing the impact of incidents on cross-harbour road crossings."

Experienced tunnel engineer Ted Nye holds concerns that resilience of the network will not be improved due to the convergence on the Warringah Freeway. Whilst the project does provide for a skimming bypass of the city (or an alternate access approach from the West) the Warringah Freeway frequently quoted as one of our "busiest roads" is not bypassed by the project, just the opposite. A substantial event on the Freeway stands to impact the whole network. A mass transit alternative connecting the Northern Beaches to the city and Macquarie would remove traffic from the system and provide for far greater resilience and a true bypass for commuters of this congested corridor.

Goal 4: Support the future growth and productivity of Sydney by improving access to labour markets in other regions of Sydney

A mass transit alternative connecting the Northern Beaches to their desired work centres of Chatswood, St Leonards and Macquarie would better achieve this goal. The key labour markets for the Northern Beaches do not lie in the city or to the West of the city as the following diagram published by Transport Planner Matthew Hounsell attests. Access to labour markets will be serviced by the current Metro program of works with Metro City and Southwest due to open in 2024 and Metro West under construction. Each line is estimated by Sydney Metro to carry 24,000 passengers per hour and services roughly the same corridor as the proposed Western Harbour Tunnel. It is not clear the extent to which these Metro's have been included into modelling as the traffic numbers quoted do not appear to recognise the very significant drop in demand in commuter traffic that may result…particularly where two-way tolling[84] is introduced on all Harbour crossings this may further exacerbate the mode shift to public transport.

Destination of Northern Beaches Commuters (Image: Mathew Hounsell June 2021 twitter) i.e. the majority who do leave are not travelling to the city

[84] https://www.9news.com.au/national/sydney-harbour-bridge-toll-to-be-introduced-both-ways/9fb5cc40-73db-40b4-9c8d-73feae7d9bf6

Figure 1-1 Sydney Metro network

New Metro Routes serve the same area as Western Harbour Tunnel (Image: NSW Metro)

Goal 5: Improve the efficiency of connections between businesses and suppliers in Sydney, the Northern Beaches and other regions.

The EIS demonstrates that many local connections will deteriorate as a result of the project. The power of mass transit to remove commuters and therefore improve reliability and travel times on current roads is not examined. This should be considered in relation to the Western Harbour Tunnel and the new Metro systems due to open.

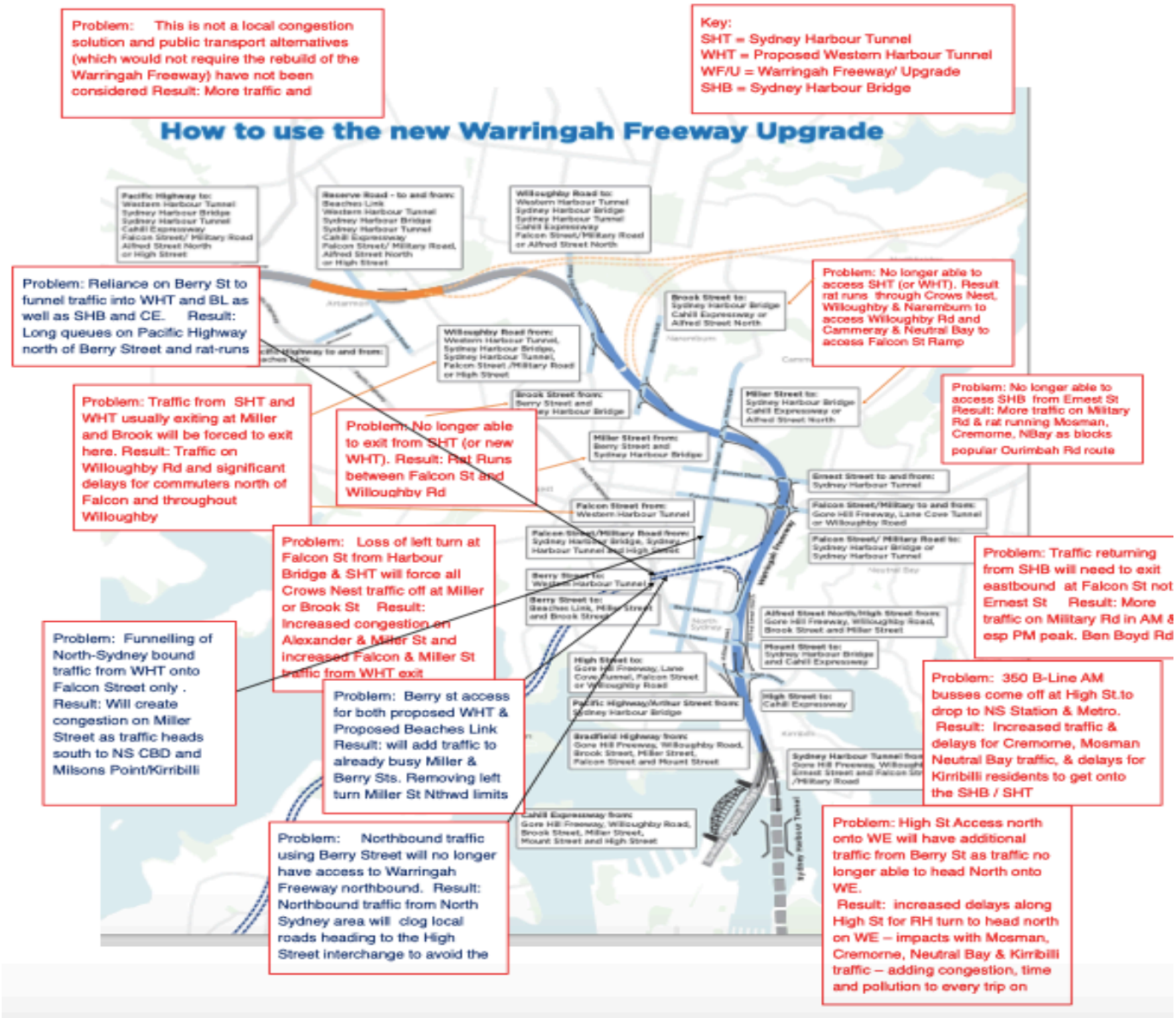
Project documents and news articles consistently claim that the project will relieve congestion and improve efficiency however the EIS demonstrates that the tunnels will create delays on many local roads especially around the Warringah Freeway. The EIS states that numerous congested intersections across the Lower North Shore do not improve **(82.5% stay the same, get worse or fail in the am peak)** including those on Military Rd if the project goes ahead. Extreme flow management changes are required to plug two tunnels into one of the busiest expressways in Sydney. This will necessitate widespread rat running through local streets as local options to access various Harbour crossings are drastically reduced. The community has tried to summarise the impacts on a map but they are so complex and extensive that is difficult to do so clearly.[85] The access issue is exacerbated by the fact that the only local entry point to the Western Harbour Tunnel and eventually Beaches Link for the majority of the North Shore will be via Berry St, one of the busiest streets in North Sydney. The only other entry is at Artarmon. The Lower North Shore is a key business centre in and of itself and Sydney' largest schools precinct -there are a large number of commuters moving across the freeway from home to schools and work that are not considered a priority by this project. It appears that, in scoping the project, the enormous movement across the freeway generated by the school/sport run and links to local business centres was not fully

[85] https://b373bb7d-84c9-4e32-a5a1-dcb4b84c93f9.filesusr.com/ugd/4b0485_cd0d2ddd6311418591612cf1f2c053a3.pdf

understood – this is not surprising as communities away from the project footprint were heavily consulted with and those close by were almost entirely excluded from earlier stages of design development.

Whilst there is not specific data around freight destinations etc it is foreseeable that freight journeys will be improved between the city and the Northern Beaches but trips to urban centres like Neutral Bay, North Sydney and Chatswood could experience significant delays. The cost of return trips through the network in terms of tolls is also a considerable concern with two-way tolling which should be considered as part of the BCR. It is not clear whether trucks would be forced to use the tunnels as per NorthConnex. In relation to the Beaches Link it is also not clear if the increased freight capacity resulting from the Mona Vale Rd upgrade has been considered in modelling and if toll avoidance has been considered for freight. The changes of access to the freeway will likely conflict with the very large number of truck movements servicing the local area. Freight alternatives such as rail, sea or a change of distribution model (or combination of all) has not been considered.

Flow Management Changes to the Warringah Freeway create major local access issues



Goal 6: Facilitate improvements to urban amenity in the Sydney CBD by reducing through-traffic movements or congestion.

A reduction in through traffic is offset by local traffic impacts due to the consequences of the changes to the Freeway. This project tries to solve one problem whilst creating another with no real net benefit overall. Given the loss of green space, trees, high level construction impacts, traffic delays and ventilation outlets being placed near parks and schools the community do not feel that this project represents an improvement in urban amenity at all, in fact it represents a significant deterioration. This is made clear via the feedback to the project and the petition. The following analysis demonstrates the extent of intersections that **remain the same (yellow)** , **get worse (orange**) or **fail (red)** comparing to today's level of service and the future "do minimum" level of service.

Operational Traffic Summary

AM Peak Intersection Performance Analysis

Level of Service:	Fail Point/ Significantly Worse	Slightly Worse	Remains the Same	Slight Improvement	Improvement

Intersection		Today vs Project (2037)		Future No Tunnels (2037) vs Project		
	Current Level of Service	Build WHT Only "do something	Build WHT and Beaches Link "do something cumulative"	2037 Level if No Tunnels	Build WHT Only "do something"	Build WHT and Beaches Link "do something cumulative"
Willoughby Road/Gore Hill Freeway interchange	A	A	A	F	A	A
Brook Street/Warringah Freeway on ramp	C	E	E	F	E	E
Brook Street/Warringah Freeway off ramp	C	D	B	E	D	B
Brook Street/Merrenburn Avenue	C	D	D	F	D	D
Amherst Street/West Street	A	F	F	A	F	F
Amherst Street/Miller Street	B	D	D	B	D	D
Miller Street/Warringah Freeway on ramp	A	A	A	A	A	A
Miller Street/Warringah Freeway off ramp	A	A	A	A	A	A
Miller Street/Ernest Street	C	D	C	C	D	C
Miller Street/Falcon Street	C	C	D	C	C	D
Ernest Street/Warringah Freeway on ramp	A	B	C	A	B	C
Ernest Street/Warringah Freeway off ramp (off ramp in PM, on ramp in AM)	A	B	C	A	B	C
Falcon Street/Warringah Freeway ramps	C	D	D	B	D	D
Watson Street/Military Road	B	C	C	B	C	C
Military Road/Ben Boyd Road	A	F	D	B	F	D
Falcon Street/Merlin Street	B	F	D	C	F	D
Berry Street/Walker Street	C	D	D	C	D	D
Berry Street/Miller Street	C	D	E	E	D	E
Mount Street/Arthur Street	F	C	C	E	C	C
Mount Street/Walker Street	D	D	D	D	D	D
Pacific Highway/High Street/Arthur Street	D	B	B	C	B	B
Pacific Highway/Walker Street/Blue Street	D	C	C	E	C	C
Pacific Highway/Miller Street/Mount Street	D	E	E	C	E	E
Pacific Highway/Berry Street	A	E	E	D	E	E
Pacific Highway/Bay Road	B	F	F	F	F	F
Miller Street/McLaren Street	B	D	E	F	D	E
Miller Street/Ridge Street	C	E	E	D	E	E
Miller Street/Carlow Street	B	B	C	A	B	C
High Street/Clark Road	F	E	C	D	E	C
High Street/Alfred Street	E	B	B	E	B	B
Mount Street/Alfred Street	B	A	A	A	A	A
Ernest Street/Ben Boyd Road	A	C	B	A	C	B
Pedestrian crossing at Military Road	A	A	A	A	A	A
Appendix F Reference	Table 4-13	Table 8-22	Table 8-22	Table 8-22	Table 8-22	Table 8-22
Artarmon/ Gore Hill						
Epping Road/Longueville Road/Parklands Avenue	D	E	F	F	E	F
Longueville Road/Pacific Highway	C	D	C	D	D	C
Pacific Highway/Howarth Road/Norton Lane	A	B	A	B	B	A
Pacific Highway/Gore Hill Freeway interchange	B	C	B	C	C	B
Reserve Road/Gore Hill Freeway interchange	D	D	E	D	D	E
Reserve Road/Dickson Road	A	B	B	B	B	B
Reserve Road/Barton Road	A	F	F	F	F	F
Appendix F Reference	Table 4-20	Table 8-30	Table 8-30	Table 8-30	Table 8-30	Table 8-30
	2016 Data					

- **Based on WHT and WFU EIS Jan 2020 Appendix F Part 1 Tables**

AM Intersection Performance Analysis

Key:

LoS	Traffic signals and roundabouts
A	Good Operation
B	Good with acceptable delays and spare capacity
C	Satisfactory
D	Operating near capacity
E	At capacity; at signals, incidents will cause delays. Roundabouts require other control mode
F	Extra capacity required

Based on Today's Performance

82.5% of local intersections will fail or get significantly worse (10), worse (15) or will remain the same (8) as compared to today by 2037 if the Western Harbour Tunnel is built

10 Intersections fail or get significantly worse whereas only 3 get significantly better – there is no net improvement delivered by this project to local streets, there is a net loss

Factoring in Future Growth by 2037

72.5% will fail or get significantly worse (9), worse (9) or will remain the same (11) factoring in future traffic growth if the Western Harbour Tunnel is Built

9 intersections will get significantly worse whereas only 5 will get significantly better – there is no net congestion improvement delivered by this project, delay on local streets will increase

See Below:

PM Peak Intersection Performance Analys

Key:

LoS	Traffic signals and roundabouts
A	Good Operation
B	Good with acceptable delays and spare capacity
C	Satisfactory
D	Operating near capacity
E	At capacity; at signals, incidents will cause delays. Roundabouts require other control mode
F	Extra capacity required

Based on Today's Performance

92.5% of local intersections will fail or get significantly worse (25), worse (4) or will remain the same (8) as compared to today by 2037 if the Western Harbour Tunnel is built

25 Intersections fail or get significantly worse whereas only 1 get significantly better – **there is no net improvement delivered by this project** to local streets, there is a significant net loss in intersection performance

Factoring in Future Growth by 2037

67.5% will fail or get significantly worse (22), worse (1) or will remain the same (4) factoring in future traffic growth if the Western Harbour Tunnel is Built

22 intersections will get significantly worse whereas only 6 will get significantly better – **there is no net improvement delivered by this project, delay on local streets will increase**

PM Peak Intersection Performance Summary

Level of Service:	Fail Point/ Significantly Worse	Slightly Worse	Remains the Same	Slight Improvement	Improvement

Intersection	Level of Service Comparison Current Service Levels vs 2037 (with Tunnels)			Level of Service Comparison Future Without Tunnels ("do minimum") vs Future with Tunnels		
	Current Level of Service (2016)	Build WHT Only "do something"	Build WHT and Beaches Link "do something cumulative"	2037 Level of Service with No Tunnels	Build WHT Only "do something"	Build WHT and Beaches Link "do something cumulative"
Willoughby Road/Gore Hill Freeway interchange	B	A	A	F	A	A
Brook Street/Warringah Freeway on ramp	B	D	B	B	D	B
Brook Street/Warringah Freeway off ramp	B	D	C	B	D	C
Brook Street/Merrenburn Avenue	A	D	C	A	D	C
Amherst Street/West Street	A	F	F	A	F	F
Amherst Street/Miller Street	B	E	D	C	E	D
Miller Street/Warringah Freeway on ramp	A	A	A	A	A	A
Miller Street/Warringah Freeway off ramp	A	A	A	B	A	A
Miller Street/Ernest Street	C	E	C	D	E	C
Miller Street/Falcon Street*	E	F	D	D	F	D
Ernest Street/Warringah Freeway on ramp	B	A	A	B	A	A
Ernest Street/Warringah Freeway off ramp (off ramp in PM, on ramp in AM)	B	B	B	B	B	B
Falcon Street/Warringah Freeway ramps	D	F	E	F	F	E
Watson Street/Military Road	C	C	C	E	C	C
Military Road/Ben Boyd Road	B	F	F	E	F	F
Falcon Street/Merlin Street	C	F	F	F	F	F
Berry Street/Walker Street	D	F	F	F	F	F
Berry Street/Miller Street	B	F	E	F	F	E
Mount Street/Arthur Street	C	E	F	F	E	F
Mount Street/Walker Street	C	F	F	F	F	F
Pacific Highway/High Street/Arthur Street	B	B	B	E	B	B
Pacific Highway/Walker Street/Blue Street	D	F	E	F	F	E
Pacific Highway/Miller Street/Mount Street	C	F	E	E	F	E
Pacific Highway/Berry Street	A	F	F	E	F	F
Pacific Highway/Bay Road	B	F	C	C	F	C
Miller Street/McLaren Street	B	F	D	D	F	D
Miller Street/Ridge Street	B	C	C	F	C	C
Miller Street/Carlow Street	C	A	A	B	A	A
High Street/Clark Road	C	F	E	F	F	E
High Street/Alfred Street	B	D	D	F	D	D
Mount Street/Alfred Street	A	A	A	A	A	A
Ernest Street/Ben Boyd Road	B	D	D	F	D	D
Pedestrian crossing at Military Road	B	A	A	C	A	A
Reference from EIS Appendix F:	Table 4-13	Table 8-23	Table 8-23	Table 8-23	Table 8-23	Table 8-23
Artarmon/ Gore Hill						
Epping Road/Longueville Road/Parklands Avenue	E	F	F	F	F	F
Longueville Road/Pacific Highway	C	F	F	D	F	F
Pacific Highway/Howarth Road/Norton Lane	A	B	A	A	B	A
Pacific Highway/Gore Hill Freeway interchange	B	B	B	B	B	B
Reserve Road/Gore Hill Freeway interchange	C	D	D	E	D	D
Reserve Road/Dickson Road	B	C	F	F	C	F
Reserve Road/Barton Road	A	F	F	E	F	F
Reference from EIS Appendix F:	Table 4-20	Table 8-31	Table 8-31	Table 8-31	Table 8-31	Table 8-31

- **Based on WHT and WFU EIS Jan 2020 Appendix F Part 1 Tables**

A Link to the above analysis can be found:
https://docs.google.com/document/d/1B0p_vOFgtJUEgrLK87sgzDWlIxFMdVa2mWnfvZOv36w/edit?usp=shari

E.3 Advertised Transport for NSW Goals and Benefits which are not supported by EIS data

Throughout the EIS Overview Documents and other updates Transport for NSW have stated other goals and benefits. Some examples are:

1) "Improved bus times" however not all bus times improve; several key routes deteriorate because of the project. See North Sydney Council's submission[86]

2) "Improvements to Cycling Infrastructure" however the Gore Hill Cycleway, Flat Rock Gully and Cammeray Oval cycleways are removed or heavily disrupted and it is not clear within the EIS how and if these will be reinstated. Under the plan cycleways leading to the city remain fragmented and unsafe across North Sydney and Willoughby with no real improvement after the project.

3) "Express Bus Routes"; there are no separate bus lanes within the tunnel so therefore the buses are not "express" in a way that is commonly understood, the buses will travel at the same speed and level of delay as cars but may get priority either end

4) "Travel times will be reduced" savings quoted don't appear to make sense in relation to km's travelled and exit/entry locations as per this document

5) Traffic reduction is not based on today's level of traffic – the statement that traffic will significantly reduce is misleading and many intersections deteriorate. Overall, the VKT's increase significantly because of the project as later explained

6) "You will experience less congestion on Military Rd…" based on the EIS data this statement is incorrect. Congestion levels stay at the same level as today and do not reduce. The % reductions claimed are based on future predicted congestion levels with and without the project. These projected levels of congestion do not appear to account for mode shift, road ceiling limits, changing commuter behaviour and work from home impacts.

[86] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SUB-9305%2120200326T040100.508%20GMT

E.4 Wider Government Policies and Goals

There are numerous government policies and plans that the EIS documents refers to. The IA Review of the Business Case asserts that the "*project has a strong alignment to the stated priorities of the Australian Government and the NSW Government to address urban congestion in major cities.*" This alignment to government policies is highly dependent on whether the projects actually "address" the congestion problem rather than transferring it or even exacerbating it across other key corridors. The EIS documents make it clear that the project increases VKT's and creates widespread disruption on other roads. It would appear the problems created by the current alignment may exacerbate congestion on major routes to a significant degree - solving one issue only to create many more. Other options have not been compared to see if greater alignment to Government policies can be achieved however it appears evident that a mix of other modes of transport would achieve this goal.

E.5 Future Transport Strategy 2056 and 30-minute Cities

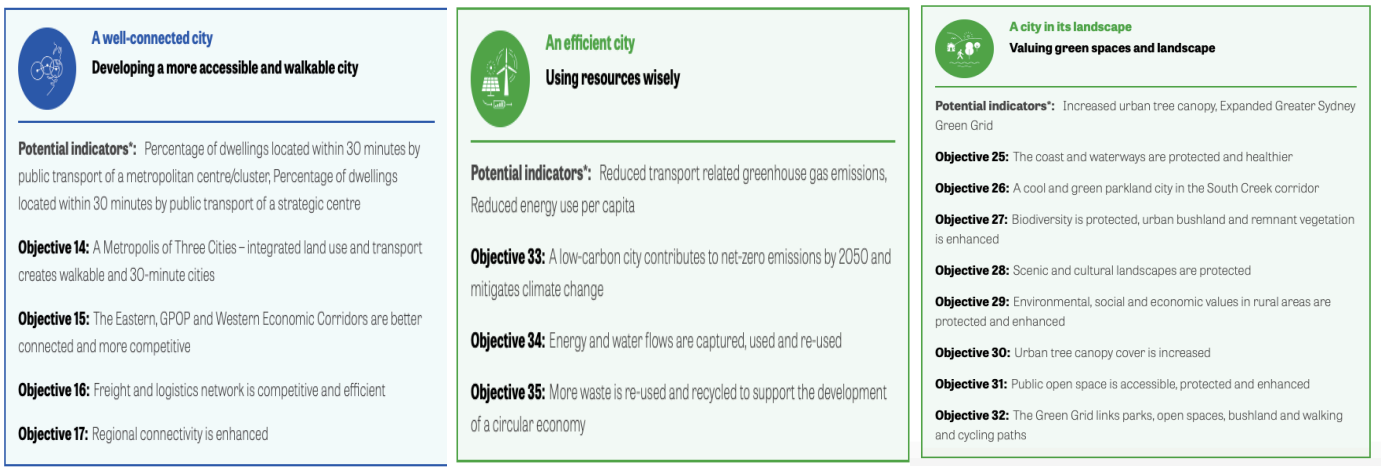
The Future Transport Strategy 2056[87] defines a 30 Minute City as

"*A planning concept for a city in which people can easily access the places they need to visit on a daily basis within 30 minutes travel from where they live. In the Greater Sydney context the focus is on access to the* ***nearest centre within 30 minutes by public transport, walking or cycling****.*

Clearly the intent of a 30-Minute City is that it is focussed on public and active transport. Most of the corridors assessed currently have public transport options that connect them to work centres within 30 minutes. A rail-based option from the Beaches to Chatswood has been shown to further enhance this connectivity and may even be able to improve the accessibility to greater job centres such as Macquarie Park. The Future Transport goal for a well-connected 30-minute city relates to public transport which as discussed is not served in the best possible way by this project, several active and public transport routes are deteriorated, and the concept has been used to justify 30-Minutes by private vehicle not sustainable transport. There is also an opportunity cost in choosing a toll road option along this corridor in terms of public transport viability into the future. The best approach to achieving these goals can only really be assessed via a comparative analysis which has not been provided.

E.6 Greater Sydney Commission – Metropolis of Three Cities Plan

As outlined in this submission the goals below are not met by this project in terms of public transport, reduction of greenhouse emissions and valuing our green spaces and landscape. Greater containment within suburban work centres and a more balanced mix of residential and work-spaces in the city supported by sustainable transport would better achieve these goals.



[87] https://future.transport.nsw.gov.au/sites/default/files/media/documents/2018/Future_Transport_2056_Strategy.pdf

E.7 Previous Plan: The Metropolitan Plan for Sydney 2036 (2010)[88]

This plan recognised that the city of cities approach regarded Sydney as comprising five cities:

i. the harbour cities of **Sydney CBD** and **North Sydney**—recognised as key elements of **Global Sydney**
ii. **Parramatta**, Sydney's premier Regional City and second CBD, and
iii. **Liverpool** and **Penrith**, the Regional Cities of Western Sydney

This recognition of North Sydney as a major economic centre in it's own right appears to be lost in this proposal and more recent plans. This project treats North Sydney as a transport interchange with Northern Beaches buses terminating whilst accommodating the main onramp for the tunnel projects through it's heart. As North Sydney Council and other submissions have pointed out this will have a negative impact on North Sydney's productivity and liveability. St Leonards and Chatswood should also be given consideration as growing local economic centres and not only treated as transport corridors or parking stations for Northern Beaches residents wishing to access the city via public transport. This is already an issue across the North Shore and is likely to be exacerbated by this project rather than solved by it as commuters seeking to minimise toll and parking costs and delays.

E.8 Local congestion is the problem; pushing more cars onto local streets is not the answer

According to Nigel Turner, Strategic Transport Planner for North Sydney Council

"Most traffic using Warringah and Military Road have local trip origins and destinations, at 49.3%, Northern Beaches employment containment is the highest in the North District"[89].

Note: this has since increased to over 50%. From a sustainable planning perspective this containment is ideal and should be encouraged to continue via investment in local job centres and facilities. The remaining commuters seeking employment outside the Northern Beaches (and those moving into the area) should be served in a sustainable manner via diversified job centres and public and active transport i.e. a strong public transport network rather than radial toll roads. Sustaining and growing the employment containment and public transport reliance rather than dissipating it by providing easier access to the city would be a far more sustainable goal.

These projects do nothing to address locally generated congestion across the Northern Beaches and Lower North Shore and in fact will exacerbate this problem whilst growing our overall vehicle reliance and parking issues. Interestingly, there are more trips Northbound in the Sydney Harbour Tunnel during weekdays than Southbound[90] This project will clearly exacerbate the traffic problems already being experienced. The Grattan Institute states that:

"Sydney's toll roads have not been designed to manage congestion"[91]

We need congestion solutions that recognise and address the complex set of congestion problems and desired destinations not ones that prioritise/ encourage personal vehicle reliance and through traffic with an assumption that the city is the major job centre or even the key area to be bypassed. Growing capacity along one route does not address the fact that for a growing number of residents local work centres at North Sydney, St Leonards, Chatswood, Macquarie Park and even Mosman are the destination points and work from home, combined with increasing density is growing local traffic issues.

As discussed, the model area for the project is extremely narrow so local traffic implications appear to be assumed to benefit overall whilst the detail that has been provided demonstrates evidence that this conclusion is not accurate. The local traffic implications contradict the overall project conclusions. The issue of insufficient modelling was picked up by

[88] http://backend.goldmategroup.com/wp-content/uploads/2016/09/Metropolitan-Plan-For-Sydney-2036-NSW-Government.pdf
[89] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SUB-9305%2120200326T040100.508%20GMT
[90] https://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/aadt-map/index.html#/?z=13&lat=-33.86277834127185&lon=151.22262276098633&id=01003&df=1
[91] https://grattan.edu.au/report/stuck-in-traffic/

the Department of Planning for the Beaches Link EIS (PIR request for further modelling) but not the Western Harbour and Warringah Freeway project. The delays around the Warringah Freeway, based on current commuter behaviour, will likely have widespread implications across the network. One breakdown at a Cammeray on ramp now creates half hour+ delays as far back as Willoughby via Northbridge and Naremburn. The pollution impacts of these delays and rat runs have also not been sufficiently modelled. With many schools in the area and pollution already often at criteria levels increased local traffic implications need to be more closely examined.

E.9 These projects are being awarded to overseas companies, do not build up Australian Industry or create the local mix of long-term jobs needed

Minister Constance has stated that:

"*This city-shaping piece of infrastructure will deliver a **vital boost to the NSW economy**, with the tunnel and freeway upgrade, along with Beaches Link, expected to support around 15,000 full time equivalent jobs*."[92]

However, there are many questions regarding whether this is the best use of funds to create the right mix of local jobs that are needed. Firstly, contracts are being awarded to overseas companies. The community and commentators have questioned whether awarding contracts to local companies or even smaller projects that local companies can complete would be better than seeing investment go overseas at this critical time for our economy. Post-Covid the shortlist selected to build the Warringah Freeway "Upgrade" project included German, Spanish, French and Chinese companies. The Early Works contract to re-locate major utilities i.e.) communications, sewer etc, conduct further testing and site set up has been awarded to an alliance of 3 overseas companies: French, American and Chinese in alliance with Transport for NSW. Infrastructure Australia and other commentators have raised the question of projects being affected by ongoing COVID-19 restrictions and supply from overseas being a significant project risk to be considered. In a recent SMH article the NorthConnex project manager stated the following in relation to delays:

"It is a complex number of systems here and a lot come from overseas. There are some experts from overseas that can't come to this country right now but remotely they're doing their bit."[93] Investing in projects which require a high level of overseas expertise (or investment) increases completion and cost related risk and may not make the best use of investment.[94]

Much of the expertise needed to build mega tunnels comes from overseas and the remaining jobs are not within industries experiencing the greatest downturn in the area nor do they develop into long term jobs. According to the National Institute of Economic and Industry Research job losses to June 20 in the Willoughby LGA have been in the Professional, Scientific, Technical, Retail and Information Media sectors. Construction and toll road operations jobs are not the most needed in the area whereas investing in the medical and IT, education and medical sectors for example would build greater local long term job prospects. It should be noted that Cammeray had one of the highest job keeper rates on the North Shore and is going to be the suburb which bares the greatest impact in terms of property pressures and amenity.

Toll road tunnels once built are highly automated and whilst they will create some direct jobs they do not create a high proportion when compared to other projects.

Additionally, the project does little to build up Australian industry and expertise. Investing in locally built public transport and technology companies associated with sustainable transport would create wider benefits for NSW, and those benefits could include regional NSW.

[92] https://www.planning.nsw.gov.au/News/2021/Planning-approval-for-Western-Harbour-Tunnel
[93] https://www.smh.com.au/national/nsw/northconnex-s-final-weeks-inside-the-race-to-open-australia-s-deepest-road-tunnel-20200927-p55zos.html
[94] https://www.smh.com.au/politics/federal/budget-cannot-rely-on-construction-alone-to-boost-economy-20200927-p55zpb.html

E.10 Alignment to International Advice and World's Best Practice

In June 2019, the **OECD** produced a reference note on Quality Infrastructure stating that:
"*Cities are home to over half of the global population and account for over 80% of global GDP. However, they also account for between 60 and 80% of global energy consumption and 70% of global greenhouse gas emissions. As urban populations are expected to account for over 70% of the world population by 2050, trillions of dollars will be needed to expand and renew urban infrastructure, particularly in clean energy,* ***sustainable transport,*** *green buildings, water and sanitation (Annex 1). Cities, due to their concentration of people and assets, also bear the brunt of natural disasters and require infrastructure investments that strengthen resilience*."

This project is not seen as a sustainable transport option, nor does it build resilience due to the reliance on the Warringah Freeway.

The report also stated that:

"*Quality infrastructure also provides enhanced services and well-being for communities. Investing in the retrofitting, upgrading and construction of quality infrastructure can promote environmental protection while also enhancing infrastructure services that are* ***critical for human health and well-being****. Because the world is changing from population growth, economic dynamics, and climate change, it will be* ***important for investments to align short and long-term social, economic and environmental goals, and to promote flexible, multi-purpose infrastructure solutions****. Investment decisions should take into account the upstream and the downstream social, economic and environmental impacts.*"[95]

This is clearly not a sustainable or multi-purpose transport solution as it is predominantly a vehicle tunnel which plugs into an existing congested corridor and creates greater VKT's and more emissions.

Best practice worldwide is trending toward urban renewal, car free zones and public transport and away from car centric cities. Even America is following a significant program of highway removal. Lincoln Institute of Land Policy Associate Program Director Jessie Groga states

"This trend is part of an evolution in how we think about who cities are designed to serve. No longer are cities being planned for cars and commuters from the suburbs; instead, their multiple roles as commerce centres, homes, and places of recreation and tourism are being acknowledged and encouraged."[96]

Sydney's focus on toll roads as it's major form of transport (ie attracting the highest level of investment) is not consistent with World's Best Practice for growing sustainable cities.

[95] https://www.oecd.org/g20/summits/osaka/OECD-Reference-Note-on-Environmental-and-Social-Considerations.pdf
[96] https://www.lincolninst.edu/publications/articles/2020-03-deconstruction-ahead-urban-highway-removal-changing-cities

(f) the consultation methods and effectiveness, both with affected communities and stakeholders,

F.1 Early Scoping

The consultation around the scoping stage of the project was weighted toward communities or areas that may stand to benefit. Communities most affected by the proposed tunnels were not consulted and many risks that are evident appeared to be overlooked as a result. For example, the extent and difficulties of construction within the Flat Rock landfill site and catchment are well understood by the community however Cammeray and Naremburn representatives were not consulted during scoping.[97]

F.2 Consultation with Key Decision Makers

The community have written extensively to key decision makers via letter campaigns and as individuals. In 2018 meetings were held with our local representative and the risks were highlighted including contamination risks at Flat Rock, risks to children due to location of construction sites, property, heritage, and pollution risks. At one of these meetings, we were told that discussions were underway with Willoughby Council around the possibility of Flat Rock Reserve, the proposed location of the major temporary dive site, being converted into a sporting facility. No discussion had occurred with the community around this idea. Attendees at the meeting made it clear that the community did not want this area used let alone built out later as it was a key area of bushland and buffer zone to remanent forest in Flat Rock Gully on top of a large legacy landfill area and in and around children's playing fields.

Despite community feedback about the area the Reference Design was published showing two options for the dive site either side of Flat Rock Drive; the Baseball Diamond or the Reserve which are both on top of the same landfill area. There was a strong community response that neither should be used due to the contamination (both sit on the same tip site metres from each other) and community wide concerns however sporting bodies lobbied for the Reserve to be selected (note the same sporting bodies objected to the project at EIS stage when the overwhelming impacts to the Gully became clearer). Later a communication was issued from our local representative that the Reserve was chosen for the dive site. Looking through the enormous number of comments, the petition and the EIS responses it is evident that this is not the preferred location of the dive site and that the community want the Reserve returned to bushland if it must be used.

This is one example where the community consultation process has been frustrating and unsatisfactory. There are concerns those decisions are being made behind closed doors and away from community feedback or that decisions are already made, and consultation is effectively a placebo. The community has also not been given access to relevant Ministers to discuss the project concerns because of the widespread nature of the impacts and implications to the project. Communication and feedback with our local member since have, by and large, been via letter and form responses where communities' concerns are passed onto another area resulting in no change. The response is that general assurances are given that the project will be of benefit and we can rest assured that all effort will be made to keep the community safe. The community deeply appreciates the enormity of the dual role our local member holds but if genuine consultation (which results in change) cannot take place at this difficult time the project should be placed on hold until proper consultation and consideration of the issues can be managed. Consultation should not just be a process of collecting community response and responding with contradicting statements or general assurances – genuine consultation should demonstrate real change to the project based on widespread concerns or serious risk.

F.3 2018 Reference Design Consultation

Consultation occurred around the **Reference Design** between August and December 2018 – many responses were submitted, with the majority objecting to the projects and raising concerns around air quality, local traffic, open space, noise, traffic, effectiveness, public transport alternatives as below.[98] Originally no consultation sessions were scheduled

[97] https://b373bb7d-84c9-4e32-a5a1-dcb4b84c93f9.filesusr.com/ugd/57c401_d28b5a5e41e549fc95581df9c072ce3e.pdf
[98] https://caportal.com.au/rms/bl/consultation

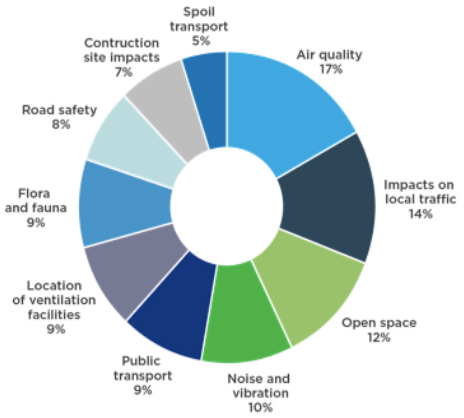
for Cammeray, Naremburn and Northbridge. A complaint to our local member resulted in a further 3 sessions being scheduled but given the short notice only a small proportion of the community were able to attend.

What you told us

2018 Proposed Reference design

Your feedback on the Western Harbour Tunnel and Beaches Link Proposed Reference design 2018 focused on the following topics:

- air quality
- impacts on local traffic
- open space impacts
- noise and vibration
- public transport
- location of ventilation facilities
- flora and fauna
- road safety
- construction site impacts
- spoil transport.



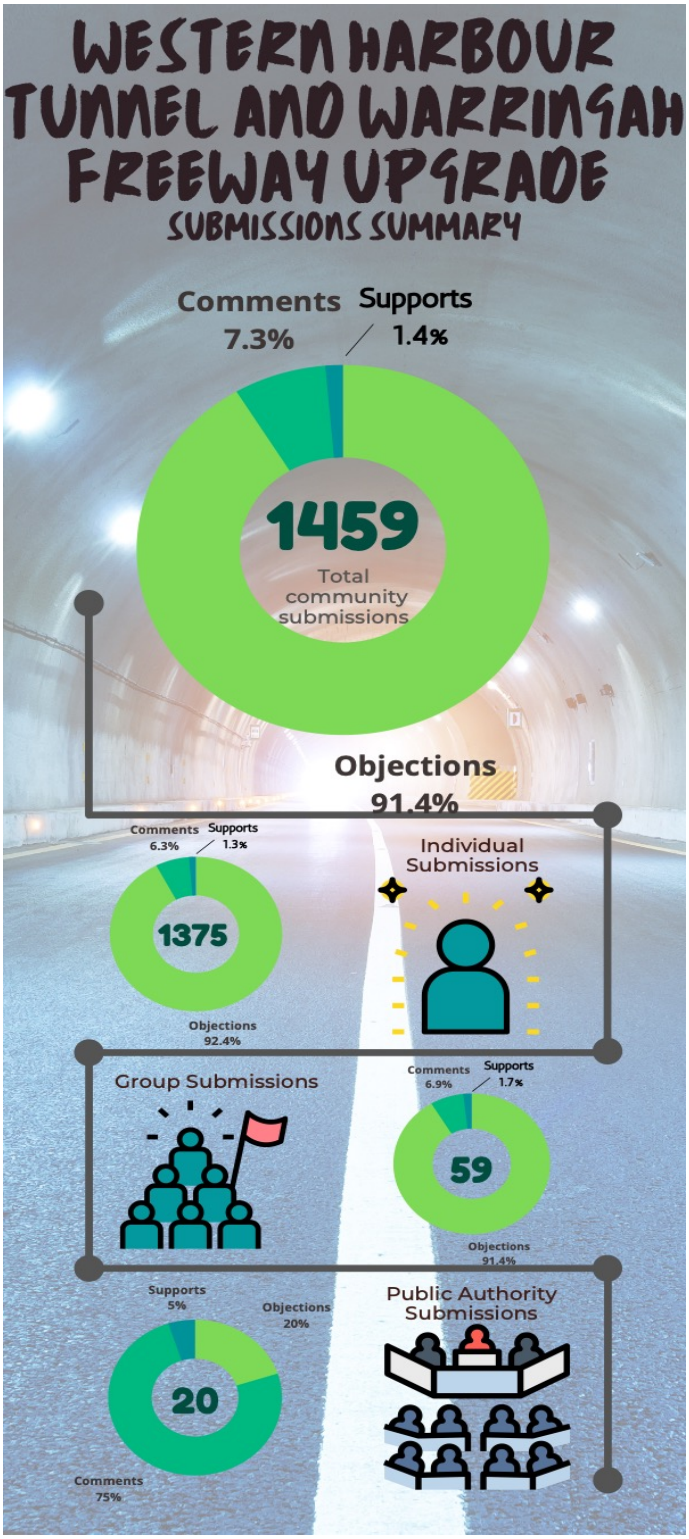
The Health Risk Assessment in the Western Harbour Tunnel EIS demonstrated that key concerns around traffic modelling, air quality and other issues grew between the original scoping feedback and the design indicating a lack of satisfaction with consultation around the project: [99]

Table 4-1 Summary of feedback from stakeholders and community engagement

Feedback topic	Number of comments	
	2017	2018
Air quality impacts, location and operation of tunnel ventilation system, potential impact on health	1068	4729
Design – tunnel entry and exit portals, alignment, road connections, depth, project description, suggested design changes, motorway features	928	1566
Transport mode, public transport alternatives, network integration, connectivity, integration with other key projects and proposed infrastructure (eg B-Line, Sydney Metro)	547	1974
Potential property impact on directly and indirectly affected properties, including property value and potential increase in urban density, property condition surveys, property access, property acquisition	501	1756
Construction impact, location of construction sites, temporary impact on support construction, hours of work, night work, spoil transport, cumulative impacts, light spill	383	3475
Potential impact on local streets, rat runs, local road safety, construction traffic, impact on parking spaces, congestion, road network performance, local road connections, increased traffic, cumulative traffic impact, travel time	398	4023
Traffic modelling	273	312

[99] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053328.436%20GMT

F.4 Early 2020 Consultation and Approval of the Western Harbour and Warringah Freeway Stage (WHTWF) – during COVID-19 first lock down



The Western Harbour Tunnel and Warringah Freeway project consultation occurred just as the first COVID-19 restrictions came into place and school returned in early 2020. Despite considerable difficulties accessing information and seeking clarification there was a substantial submission response with overwhelming objection to the project

*"Of the **1459 submissions** received, 20 submissions registered support of the project, **1333 registered an objection**, and 106 submissions registered as a comment."* [100]

As per the breakdown below many of the same themes were repeated, raised in both the Design Feedback Phase and the Petition to Parliament. Many of the submissions noted the difficulty in consulting on the project due to COVID-19 restrictions and the complexity of the project. Given that the route falls in and around large school zones, being asked to consult on a 9,000+ paged document while home schooling and changing work arrangements was particularly challenging and many in the community felt that they were not given the opportunity to fully understand the implications of the project.

13 school and community groups wrote to the NSW Planning Minister and the Premier asking to suspend the consultation until restrictions were lifted however this was not granted with a response received shortly before the closing time.

[100] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=EXH-2682%2120200914T005952.885%20GMT

F.5 Objection Themes remain relatively consistent across all stages of consultation ie community concerns have not been addressed

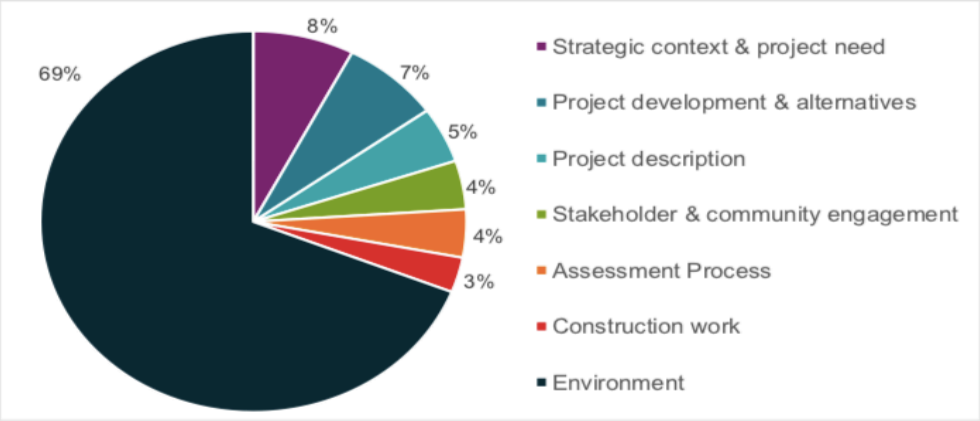


Figure A3-1 Key issues raised in community submissions

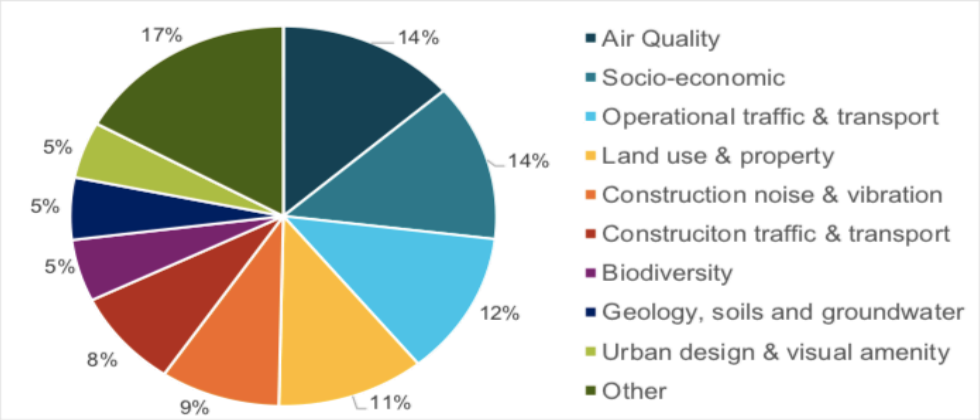


Figure A3-2 Key types of environmental impact issues raised in community submissions

No Design Changes were made following widespread community objection. Upon approval of the WHTWF stage a Community Update in September 2020 stated that

"We carried out extensive consultation during 2017 and 2018. During this time your feedback has been critical to helping us refine the design and make a number of positive changes to the project, which was presented in the EIS …. Because of this early consultation and your previous feedback, ***no major changes to the project's design are proposed*** *as a result of the submissions received."*[101]

Given the ongoing nature of the significant issues raised and the fact that impacted communities were not sufficiently consulted with during design development – the resulting "no design changes" effectively rendered the EIS consultation process useless in the eyes of the community. Many were frustrated that their time had been wasted mid-pandemic. Some minor changes were made away from the key areas of concern around the Warringah Freeway and all failed to address the key environmental issues raised. One of the early changes claimed to have been made pre-EIS was "*Re-locating the ventilation facility to within the Warringah Freeway corridor from its original position*". Our local member also claimed that stacks were moved away from local schools. The community did not see an alternate location documented but it was rumoured that the stacks were originally planned for a location closer to Private Secondary Schools and the North Sydney CBD. The "new" or planned location places the pollution dispersion in the range of many

[101] https://caportal.com.au/rms/wht/documents-and-notifications?hview=media-f2ab68-community-update-september-2020

more primary schools, pre-schools and local parks. Given younger children are more susceptible to the effects of vehicle pollution this location is not seen as a benefit to the community.

F.6 July 2020 Community Petition to Parliament

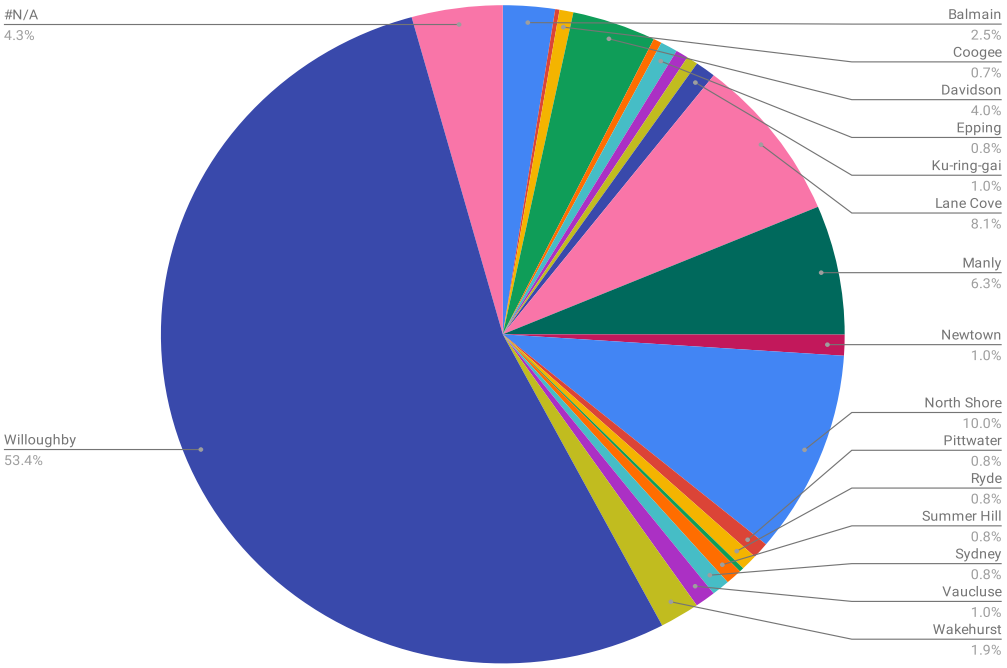
In December 2018 a petition was developed based on the key community objections in response to the reference design. The petition originated in the Willoughby area in response to a growing sense that valid community concerns were being overlooked. We made our local member, the Premier, aware of a petition, it's content and progress during a well-attended delivery event at her office. In November 2019, after the petition passed 10,000 hand-written signatures, we again wrote to our local member asking her to 1) accept the petition in person 2) guarantee submission to Parliament within a reasonable timeframe given pending determination and possible contractual decisions. The community did not receive a reply, upon follow up we were asked by administrative staff to drop it to the Premiers office - no guarantee was given of submission and office staff stated that the petition submission process would be a lengthy one contrary to advice from the Parliamentary Sitting Officer. It was felt by the STT steering committee that this did not sufficiently honour the communities petition or the urgency of it's content. A decision was made to offer it to other MP's who may be willing to table the petition as soon as possible. The Hon. Rob Stokes MP declined to accept the petition and directed us to give it to our local member. The petition was then offered to opposition MP's and was eventually submitted to Parliament and debated on the 30th July 2020. The petition debate can be found 30th July 2020, Legislative Assembly Hansard.[102]

The majority of the 11,000 signatures collected came from the electorate of Willoughby and it should be noted that children from local schools decided to also collect hand-written signatures and notes which were personally delivered to our local member. The issues raised in the petition have not been addressed and remain as key objections to the project found in the many EIS submissions. By and large it was felt that the members of the government who responded to the petition during the debate, the Member for North Shore and Manly, dismissed the ongoing concerns of the community and did not treat the issues raised with due regard. Community members were disappointed with the response and all points remain as outstanding objections to the project. Whilst local members have conceded to meet with the community on a few occasions by and large the serious issues have been dismissed or actions have been pointed to which are historic or fail to address the issues raised.

In this way the community feels that the **consultation with representatives has been ineffectual** and not in the publics best interest. The issues raised are backed by excellent research and have always been presented with the intent of achieving the best possible outcomes for both the community and the government. Our decision makers have a duty to engage in good faith with these issues and seek to resolve them and to consider if the project assumptions match the reality. It should be noted that the bulk of petition collection occurred in Willoughby and the weighting is not an indication that other areas support the project, in fact North Sydney council launched it's own well supported campaign following this petition which demonstrated a high level of concern in the North Shore electorate and many objections were submitted during the EIS phase from North Shore individuals, groups and schools. Willoughby Council also ran an additional survey during the Beaches Link EIS confirming that the overwhelming majority of respondents object to the project citing environmental and cost/benefit concerns.

[102] https://www.parliament.nsw.gov.au/hansard/pages/home.aspx?tab=Browse&s=1

Objections by State Electorate



PETITION
To the Honourable the Speaker and Members of the Legislative Assembly of New South Wales.

The Petition of citizens of New South Wales:
Brings to the attention of the House the adverse impacts on the health and wellbeing of the citizens of New South Wales and the adverse impacts on open space and Sydney Harbour as a result of the proposed construction of the **Western Harbour Tunnel and Northern Beaches Link**.

The undersigned petitioners therefore ask the Legislative Assembly to **urgently**:

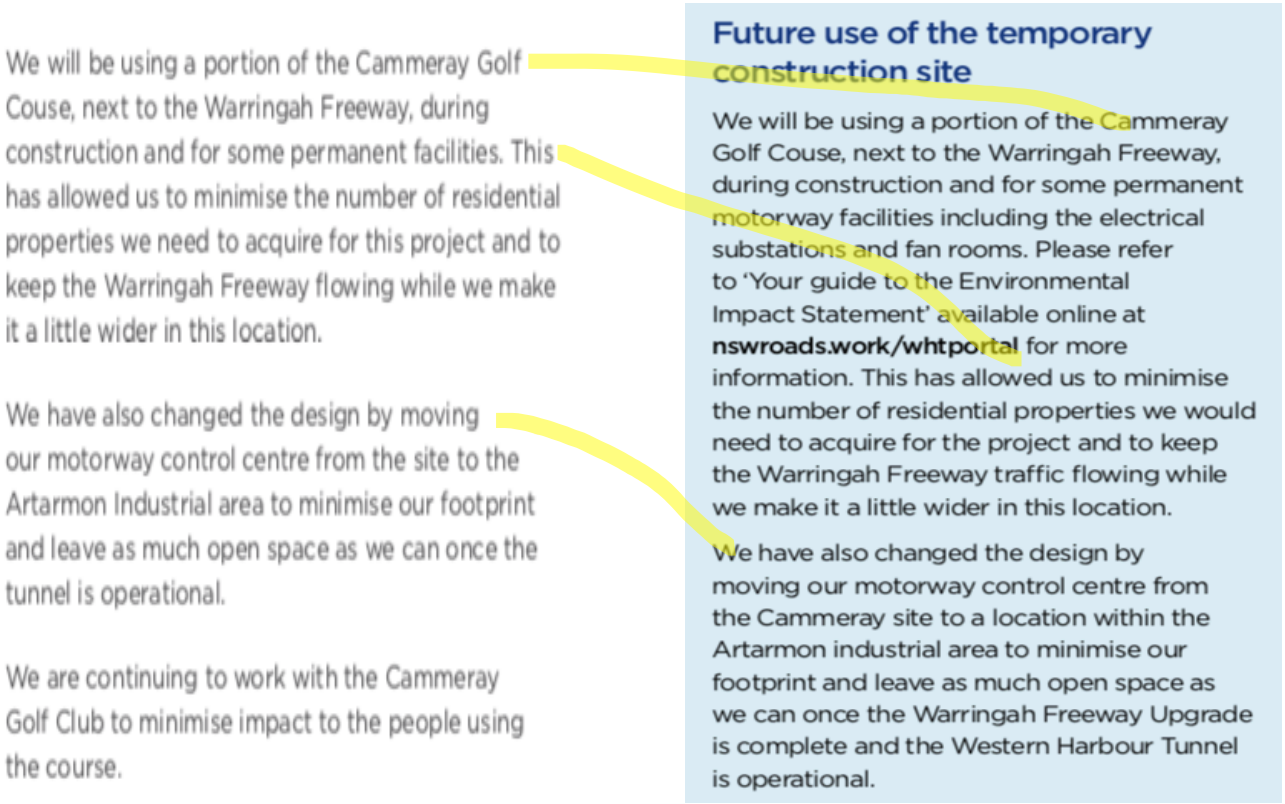
- Stop the Western Harbour Tunnel and Northern Beaches Link project and undertake **meaningful and rigorous community consultation**;
- Release to the public the **business case** for the Western Harbour Tunnel and Northern Beaches Link projects;
- Move **construction impacts** further away from the most concentrated area of sensitive receivers in Sydney (**schools, preschools, aged care, hospitals, sporting fields and playgrounds** etc)
- Ensure that any specifications for the project mandate **best practice filtration** of the proposed tunnels and stacks;
- **Avoid conservation areas** and adequately compensate for damage or loss to homes;
- Ensure that open space, bushland, **Sydney and Middle Harbour** and the urban tree canopy are properly protected and safe to use;
- Stop planned construction in **high risk areas that will release harmful contaminants**, such as Flat Rock Gully Landfill, Cammeray & Naremburn Quarry, Harbour Coal & Petroleum sites, Middle Harbour Acid Sulfate Areas;
- Ensure the inclusion of viable and **substantive public transport options** within the project;

F.7 Claims that the community have been listened to are misleading

Referring to old changes in new project communications is a misleading practice. Recently a project notification was issued to the community claiming that impacts to the Cammeray Golf Course had been minimised. On closer reading it was evident that the notification was referring to "a change" or rather decision that had been made PRIOR to the issuance of the EIS[103]. Much confusion ensued on social media until reference documents were put forward showing the "update" to be a retrospective announcement. This is a misleading practice as no design changes have in fact been made following EIS consultation and decision made early in the design process are being claimed to be changes resulting from recent community consultation. The community should be afforded the opportunity to understand the project at face value and not be marketed to in confusing and recycled announcements which give a false impression of the responsiveness of consultation

January 2020 Update[104]. pre-EIS Consultation **May 2021 Update[105] post approval**

Announcements are repeated/ recycled across community updates which is misleading for the community who are led to believe that further changes have been made to the project based on community consultation where they have not but were part of the design phase of the project.



We will be using a portion of the Cammeray Golf Couse, next to the Warringah Freeway, during construction and for some permanent facilities. This has allowed us to minimise the number of residential properties we need to acquire for this project and to keep the Warringah Freeway flowing while we make it a little wider in this location.

We have also changed the design by moving our motorway control centre from the site to the Artarmon Industrial area to minimise our footprint and leave as much open space as we can once the tunnel is operational.

We are continuing to work with the Cammeray Golf Club to minimise impact to the people using the course.

Future use of the temporary construction site

We will be using a portion of the Cammeray Golf Couse, next to the Warringah Freeway, during construction and for some permanent motorway facilities including the electrical substations and fan rooms. Please refer to 'Your guide to the Environmental Impact Statement' available online at **nswroads.work/whtportal** for more information. This has allowed us to minimise the number of residential properties we would need to acquire for the project and to keep the Warringah Freeway traffic flowing while we make it a little wider in this location.

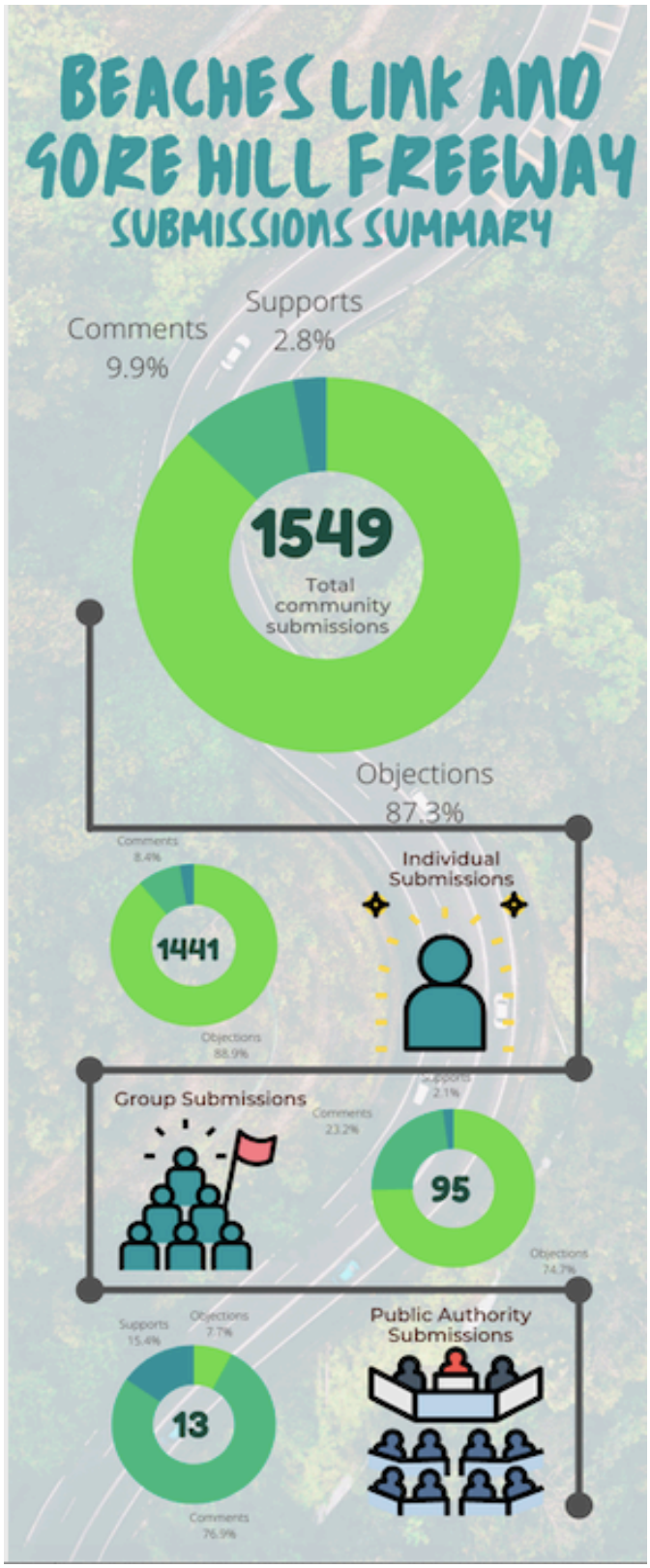
We have also changed the design by moving our motorway control centre from the Cammeray site to a location within the Artarmon industrial area to minimise our footprint and leave as much open space as we can once the Warringah Freeway Upgrade is complete and the Western Harbour Tunnel is operational.

[103] https://roads-waterways.transport.nsw.gov.au/projects/01documents/western-harbour-tunnel-beaches-link/whtbl-cammeray-temporary-construction-site.pdf?fbclid=IwAR3bAgqBuBP5udhHNMsiD7wJa2s0P5iCWSuILqiSdXZuS3eM093_bPaMQJM

[104] https://roads-waterways.transport.nsw.gov.au/projects/01documents/western-harbour-tunnel-beaches-link/whtbl-cammeray-temporary-construction-site.pdf?fbclid=IwAR3bAgqBuBP5udhHNMsiD7wJa2s0P5iCWSuILqiSdXZuS3eM093_bPaMQJM

[105] https://caportal.com.au/rms/wht/documents-and-notifications?hview=media-192c7a-cammeray-temporary-construction-site-notification-may-2021

F.8 Beaches Link and Gore Hill Freeway Early 2021 –Consultation regarding the Beaches Link and Gore Hill Freeway project



The consultation on the Beaches Link project occurred over Christmas and the beginning of the school year 2021. This time the documents were even more extensive and covered 12,000 pages of Environmental Impacts. Ongoing COVID-19 restrictions meant that documents were not able to be viewed at a Library and online sessions were held. These sessions were restricted in scope to around a particular construction site. This meant that some consultation fell through the cracks. For example, at the Cammeray Session participants wanted to clarify wider impacts to Cammeray and down to Middle Harbour only to be told that the session would only cover the Cammeray Golf Course Construction site. There was no further opportunity to clarify the other issues raised. Similarly, participants at the Northbridge/ Willoughby session wanted to ask about impact to Naremburn and along the Northbridge peninsular however the session was restricted to speaking about the Flat Rock site only.

Community groups made submissions asking for an extension of time to respond however this was not granted despite the difficulties experienced. Despite this a greater number of responses were seen for the Beaches Link with a higher number of concerned groups and government agencies submitting. Community groups have expressed concern however that several community groups do not appear to have been sufficiently briefed. Discussions with some government departments has confirmed that they also had difficulty due to COVID-19 and the timing of release of documents and key impacts that fall under their responsibility were missed ie) no health assessment related to Northbridge Baths, no utilities assessment under Northbridge and Northside Storage Tunnel not assessed, DPIE Water unaware of some of the drawdown, contamination, and catchment issues.

On the weekend submissions were due the planning **submission system was down for "scheduled maintenance**". There was no warning that this would occur, and many community members were frustrated after many attempts to submit. Those that followed up with DPIE were granted permission to email in a late submission however this was not widely publicised, and many did not have the time to chase up the process during the working week. Community members have commented that they were put off by the outage and did not submit for that reason. There was not an equitable opportunity to make submissions.

F.9 A Change Request (PIR) has been issued for the Beaches Link Project

Since this time a **PIR[106] has been raised by the Department of Planning asking for substantial** aspects of the project to be reassessed ie) Flat Rock Gully, Middle Harbour contamination and local traffic implications. This is the first time the community has seen a substantial response to the issues they have raised however many other issues are still left unactioned. We hold concerns however that these changes will be minor and/or won't be put on public exhibition for public comment and consultation. Given the substantial nature of these changes this would be seen as an essential step by the community. One community member has had a response from Transport for NSW indicating that the PIR will not be substantially actioned nor will changes be the subject of further community consultation which indicates to community that this may not be a genuine attempt to mitigate the issues raised.

A freedom of information request has confirmed these fears with notes that demonstrate that TfNSW are simply intending to justify a site on one side or another of the connecting road at Flat Rock Drive – both options are on top of the same landfill area with similar risks. The community is expecting a substantial reassessment of this site given the risks rather than simply further justifications from TfNSW.

Meeting Minutes 26/4/2021

- TfNSW will update the Flat Rock site selection paper in response to DPIE feedback
- AB noted DPIE have revised one of the dot points in relation to Flat Rock to confirm DPIE want a comparison between the 2 sites shortlisted. Social impact should be a consideration in this comparison
- AB noted DPIE are trying to get comfort that the site selected is still the most appropriate. That may mean doing a mini assessment of each key issue at both sites (e.g. noise, visual amenity, biodiversity etc.), taking on board comments received by DPIE and comments received during exhibition of the EIS
- AB noted that the current options paper is not very compelling in the selection of the preferred site. DPIE need to decide if it is an option they can support based on additional information from TfNSW. AB noted this is critical
- AM noted contamination is also a consideration

F.10 March 2021, Early Works have raised a red flag regarding consultation failures

Much to the surprise of the community a separate early works contract was issued under the Sydney Program Alliance – an alliance between Transport for NSW and 3 overseas owned companies. We were not aware of a tender process of the intention to start the project under a separate contract. These early works were first detected by users of local parks and the community rather than notification around the 8th March 2021. Several groups including school P&C groups had requested consultation prior to works commencing via the EIS process however these groups are not being contacted independently. Instead, a few school Principals were contacted which placed them in a very difficult position with a frustrated community. It has been up to the community to again make submissions to a survey process and go through another consultation process with the Alliance where all the same issues have been raised. There appears to be no continuity of community consultation between each stage of the process with the community having to start again at each step. Prior promises around trucks being confined to the Warringah Freeway, dust monitoring and management and contamination testing have been broken.

[106] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120210514T043630.746%20GMT

(g) the extent to which changes in population growth, work and travel patterns due to the Covid-19 pandemic have impacted on the original cost benefit ratio,

G.1 Our work patterns and population "shape" are changing; the Business case is no longer fit for purpose

Comment regarding our population changes, work and travel changes and the recommendations was made by IA are under section (a). As far as the community are aware no further analysis has been done to consider the long-term impacts of COVID-19 on the business case and Infrastructure Australia has advised a review be completed for all new projects. Given the expense, disruption, and uncertainty around this project this recommendation should apply to the Western Harbour and Beaches Link projects.

The SMH story

"Covid-19 to reshape Sydney in the biggest way since the Spanish Flu as population stalls" [107]

demonstrated that population modelling will need to change both in terms of numbers and distribution. Given the job profile of the areas being serviced by these projects it is highly likely that work and travel patterns will remain changed ie) the North Shore and Northern Beaches have a high proportion of technology and service jobs that can be done via flexible work arrangements. It appears that rather than projects providing city-shaping benefits that **COVID is accelerating sustainable change and shaping our future** – our projects need to change to match that shape. Mr Stokes recognised the changing shape from city centres to local centres in a press release in 2020 that stated that

"The COVID-19 pandemic has generated a shift in economic activity to our suburbs and local centres as more people work from home and avoid commuting into traditional city CBDs,"[108]

Anecdotally many in the community who previously worked in the city, including key decision makers, are reporting that decisions have been made to permanently move to flexible work arrangements and many locals have opted for a sea or tree change with permanent work from home capabilities. This is being reflected in the low occupancy rates in the city. Given the need to mitigate future risk some corporations are looking to move to permanent hub and spoke models or meeting room facilities. Locally we have also seen an increased uptake of active transport with the local bike store selling out along with a significant observable increase in commuters and children riding and walking to school.

These changes may benefit congestion heading South however the shift around local centres is likely to exacerbate local traffic as will the aggressive densification underway across the North Shore (ie St Leonards, Crows Nest, many Village Centres). This densification is already resulting in more local traffic and competition for green space. The key issue here is that the significance of the local impacts will have increased i.e. reduction in green space and reduced access to the Freeway is greater post COVID-19. Greater priority needs to be given to local centres rather than sacrificing their amenity at the expense of through traffic and city centric planning. The business case/ justification/ goals of the project need to be reassessed with the shift to local urban centres prioritised.

The business case needs to be reviewed in-light of changed work patterns[109], already out of date trip data, the very high community impact, a changed focus on local centres and still yet to be fully scoped risk. These changes are likely to have a very considerable impact on the cost/benefit ratio of the project and we believe make the project untenable.

[107] https://www.smh.com.au/national/nsw/covid-19-to-reshape-sydney-in-biggest-way-since-spanish-flu-as-population-stalls-20201011-p56412.html?fbclid=IwAR0tYNoYgD9FosB-5mWWMFjiQUpqzIi4bQeXuWSf4OiGvWVJSn8eRBiuxrE

[108] https://www.dpie.nsw.gov.au/news-and-events/articles/2020/$500-million-rejuvenation-for-key-western-sydney-centres

[109] https://www.afr.com/work-and-careers/workplace/wfh-here-to-stay-but-office-won-t-die-20200904-p55scs

(h) whether the NSW Government should publish the base-case financial model and benefit cost ratio for the for the project and its component parts,

H.1 The WestConnex Inquiry recommended that the base-case be published for future projects. A lack of transparency regarding the inputs to models adds to the community mistrust and exposes the tax-payer to unnecessary and unknown risk. The financial modelling allows the community and decision makers to look for ways the model can be adapted in a changing environment to best address congestion and serve future needs. This transparency should be the haul mark of a collaborative planning processes which treats the community as true stakeholders and partners in the planning process.

(i) whether the project is subject to the appropriate levels of transparency and accountability that would be expected of a project delivered by a public sector body,

I.1 A lack of transparency around the project

A lack of transparency has been an ongoing frustration for the community and is the subject of many objections over time. The community has repeatedly asked to see the business case to better understand the justifications for the project and how the benefits outweigh the considerable costs that are evident and well documented. We are aware that several GIPA's have been raised within the community to seek more information but little to no information has been provided citing that the information is not in the public interest. Willoughby Environmental Protection Association (WEPA) for example lodged a GIPA for the Beaches Link business case but the request was refused.

I.2 A document that demonstrates impacts to high rise buildings was removed from public access

a relevant document that was originally available on the NorthConnex Website but since our letter was circulated to Parliament (Main Submission) it had since been removed. We contacted the NorthConnex team but they were unable to provide the document. The document is a post-approval procedure which pertains to building limits at height around the stack and demonstrated that buildings at elevation a considerable distance from the stacks ie 2km's can be adversely affected by above criteria pollution. The recommended building restrictions as a result were widespread. Whilst this is not a substantive concern in relation to the NorthConnex stacks it is very significant when it comes to the stacks at Cammeray and Artarmon which are subject to high rise development within that range. It is also concerning as the length of tunnel being serviced by the Cammeray "mega" stack is longer i.e has the potential to expel a higher volume of pollutants that the NorthConnex stacks. The document is called the Northconnex Local Air Quality Assessment Process Report was previously saved here: https://staging.northconnex.com.au/docs/default-source/environment-documents/northconnex-local-air-quality-assessment-process-report.pdf?sfvrsn=2

1.3 Unanswered questions

A lack of transparency relates to many areas of the project where **questions have been left unanswered** (ie sensitivity analysis which shows some schools receive higher pollution levels, unknown truck routes, timing of works, background monitoring data) where insufficient information has been gathered pre-EIS (contamination, local area knowledge, Aboriginal and built Heritage sewage works and utilities) or where information is misleading. In the case of visual impact for example the "mega" stack at Cammeray (a double stack 30x30 metres high) is shown at elevation obscured by a tree and most impact pictures show amenities with an arrow pointing to their location rather than a realistic view of the scale and location of facilities and changes.

In regard to accountability, it was disappointing to see that the **Upper House requested the Business Case on many occasions** over the period of a year or more (since 14th November 2019) and that documents finally provided upon the

threat of censure were incomplete and for the eyes of the Upper House only. This delay and lack of information prevents the house from acting in it's capacity as "the House of Review" on behalf of the people of NSW. At the very least if accountability cannot be demonstrated to the public the Upper House should be able to represent the public and hold the project to account.[110]

1.4 Confidentiality Agreements have been put in place and public land is being acquired with little transparency

We understand that Crown Land will be utilised across the project footprint however the community has not visibility regarding the detail of agreements. The Crown Lands submission to the Beaches Link stated that an acquisition process would need to be undertaken for Beaches Link. The SEAR's for the projects require that the following is documented:

"land use changes as a result of the proposal and the acquisition of privately owned, Council and Crown lands, and impacts to Council and Crown lands;"

There has been no clear account of the Crown Land to be used or acquired for the project – something the community expects when it comes to public spaces. Concerningly, it appears that there is compensation being provided to councils and leases that is not transparent – this raises the question of whether the councils are being incentivised not to speak out against the project. In one case a FOI has revealed that the Northern Beaches Council may be paid for biodiversity losses.

Specifically, regarding Flat Rock Gully (some of the waterways are Crown land) and Clive Park (the foreshore and picnic area are both Crown land) both of which stand to be heavily impacted.

Regarding the Beaches Link and Gore Hill Freeway Connection works (Chapter 20 – Land use and property) states:

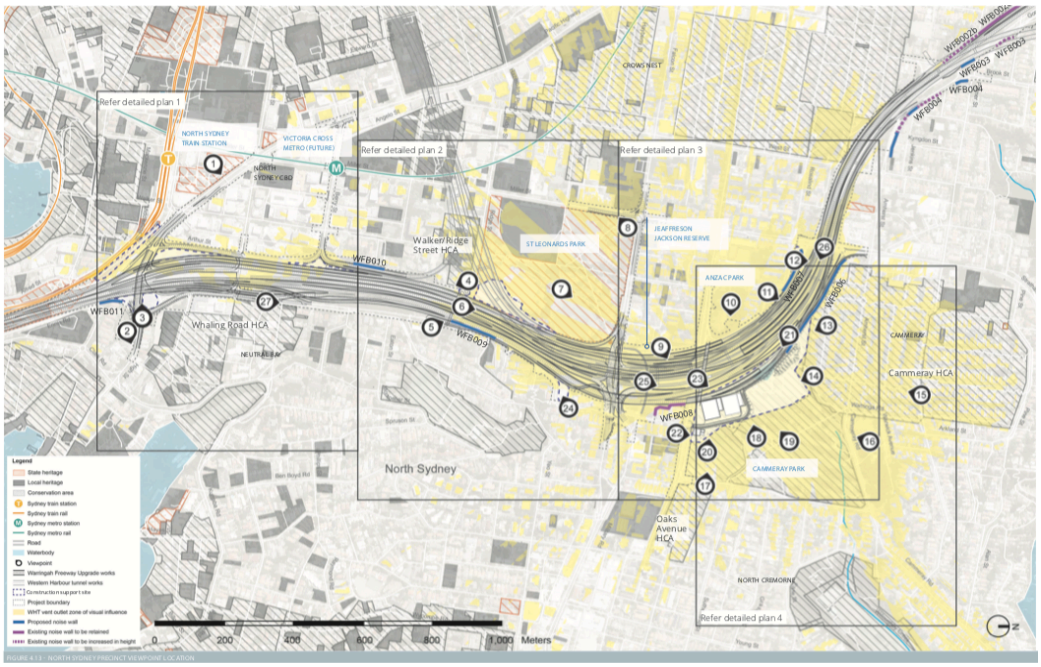
- Flat Rock Reserve: TfNSW will lease land from Willoughby City Council to set up a temporary support site in the reserve to support tunnelling for the project. The community will be able to continue using the wider Flat Reserve area and Flat Rock Gully area for public open space and recreational use during construction.
- Wakehurst Parkway: a portion of land required for the access road to and from the support site forms part of the Manly Dam Reserve, which is Crown land. This land would be leased, and rehabilitated and returned to Northern Beaches Council at the end of construction.
- Cammeray Golf Course (Crown land): Permanent project infrastructure would be established within the existing Cammeray Golf Course adjacent to Warringah Freeway the Warringah Freeway which would change a portion of the existing land use from public recreation to permanent transport infrastructure for the project. This would reduce the amount of land available for public recreational use (the land currently used as a golf course). However, the layout would enable Cammeray Golf Course to be retained in a modified form to the Western Harbour that enables continuation of golf-related activities. Transport for NSW is consulting with Cammeray Golf Club, Tunnel Department of Planning, Industry and Environment (Crown lands) and North Sydney Council (the trustee) to achieve this outcome.

1.5 The "Mega" stack at Cammeray is visually under-represented to the community in terms of scale and size

The Visual Influence[111] of the stack is far larger than the community expect. All areas in Yellow will have a view of the ventilation stack. The Visual Influence Diagram in Appendix V, Figure 4.13 of the Western Harbour Tunnel and Warringah Freeway EIS demonstrates that the "Mega" stack at Cammeray will have a very wide area of visual impact. The stack will be visible across several suburbs i.e. Crows Nest and Cammeray and parts of Neutral Bay, Cremorne and North Sydney. This contradicts the visuals that have been portrayed to the community with the stack tucked into the Warringah Freeway and behind trees which obscures it's monolithic and dominating scale. Given the highly residential nature of the area,

[110] https://www.parliament.nsw.gov.au/tp/files/77731/Resolution%20-%20Western%20Harbour%20Tunnel%20and%20Beaches%20Link%20Business%20Cases%20-%20Further%20Order%20(18%20June%202020).PDF
[111] WHT EIS Appendix V https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200129T233613.931%20GMT

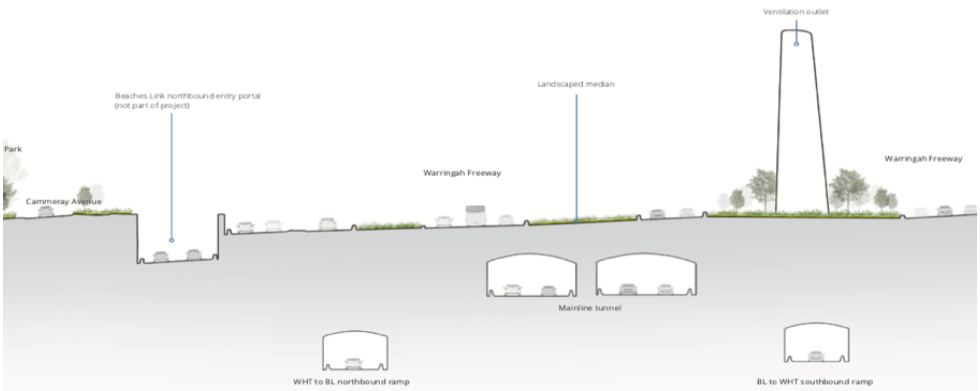
schools in proximity and the topology the unexpected visual influence of this stack is likely to create widespread community stress and be a permanent reminder of the community's pollution concerns. According to this map the stack will be clearly visible from at least 7 schools in the areas well as several heritage areas and parks. The visual amenity of an area is closely associated with wellbeing and mental health particularly where green spaces are impacted.



The stack portrayed in the Beaches Link EIS does not accurately reflect the reality (note the relative size of cars to stack in the schematic and that this is a side/ narrow view only)

Figure 22-12 Proposed view (year 1 of operation) north east over Warringah Freeway from Jeaffreson Jackson Reserve

Transport for NSW Fly Through Video with label obscuring stack height



Left: Drawn proportion of the stack (see comparison to cars) from side view shows a much larger structure.

(j) the impact on the environment, including marine ecosystems,

J.1 The identified environmental impacts of this project are extensive

Several groups will have made submissions pertaining to issues across the project footprint. Below we highlight some of the data which demonstrates the impacts expected which are documented in 20,000+ paged EIS documents. Where data is available, we have compared the impacts with the Southwest Metro EIS which is a public transport project of roughly the same distance also crossing Sydney Harbour. As evidenced below the impact of the metro option is far lower on all counts measured.

Western Harbour Tunnel and Beaches Link Toll Road
Climate, Biodiversity and Sustainability Scorecard

Item	Western Harbour/ Warringah Freeway	Beaches Link and Gore Hill Extension	Cumulative Impact** and Comparison
Total Construction Emissions	**784 000 tonnes CO2e*** WHT EIS Appendix X Table 3-16 ***164 000 Tonnes** CO2e Diesel* WHT EIS Chapter 26 Table 26-5	**809 000 tonnes CO2e*** BL EIS Appendix X Table E-1 ***138 000 Tonnes CO2e Diesel** BL EIS Chapter 26 Table 26-5	**1 477 000 tonnes CO2e** BL EIS Appendix X Table E-1 **Comparison: The Southwest Metro, Chatswood to Sydenham[112] will produce total construction emissions of only 579,280 t CO2-e over approx.. the same distance ie 15.5km twin tunnels**
Total Operational emissions per year with the project 2037* **	**72 100 tonnes CO2e tonnes per year** WHT EIS Ch 26 Table 26-26	**52 526 tonnes CO2e tonnes per year** BL EIS App X Table 3-28	**139 363 tonnes CO2e tonnes per year by 2037** **BL EIS App X Table 3-28** **Southwest Metro produces only 65,835 t CO2-e per year**
Emissions increase due to the project	**31 651 tonnes CO2e additional per year**** WHT EIS Appendix X Table 3-26	**19 484 tonnes CO2e additional per year** BL EIS Appendix X Table 3-16:	**67 950 tonnes of additional CO2e per year** BL EIS Table 3-16 **Metro = reduction in vehicle emissions**
Increase in Vehicle Kilometres Travelled (VKT) per Day by 2037 due to the project	**410 406 additional VKT per day** WHT EIS Appendix X Table 3-15 14 004 279 VKT (do something) - 13 633 873 VKT (BL do minimum) = 58,443	**311 963 additional VKT per day** BL EIS Appendix X Table 3-15 based on 13 945 836 BL 13 945 836 (Do something ie BL) – 13 633 873 (Do Min)	**950 393 additional VKT per day** BL EIS Appendix X Table 3-15 based on 14 584 266 Do something cumulative – do minimum **Metro = reduction in overall VKT's**
Total Waste Generated Spoil, crushed rock, site etc	**6 + Million tonnes** EIS Appendix X Table 3-9	**6+ Million tonnes** EIS Appendix X Table 3-9	**12+ Million Tonnes in Total** Addition

[112] https://drive.google.com/file/d/1eWovfeQmhIwt1WRxP_NPwMwSItXUWnTl/view?usp=sharing

Amount "suitable" for offshore disposal	**1 219 200 tonnes** EIS Appendix X Table 3-9	**241 000 tonnes** BL EIS Appendix X Table 3-9	**1 450 000 tonnes** total
Water Usage: per day	**1 327 000 Litres per day*** *Includes 837 000 L per day potable water WHT EIS Chapter 6-90	**2 645 000 Litres per day*** *Includes 1 442 000 Litres Potable water BL EIS Chapter 24 -6	**3 972 000 Litres of water will be used per day to build the tunnels**
Volume of sediment to be Dredged from Harbour	**904 500 m3** **Sydney Harbour** WHT EIS Chapter 19	**163 000m3** **Middle Harbour** Note: Dry out & disposal location unknown BL EIS Chapter 24 Table24-7	**1 067 500m3** **Total dredged sediment** **Metro = zero dredged as bored not immersed tube tunnel used**
Contamination Risks Identified in Project Footprint	**20 moderate to high risk sites** Areas along Warringah Freeway, St Leonard's Park, Cammeray Golf Course, Waverton Park, Birchgrove Pt, Sydney Harbour. Contamination risks noted: PFAS, Heavy metals, hydrocarbons (mainly PAH), asbestos pesticides, PCB, nutrients, cyanide, VOC, asbestos WHT EIS Appendix M	**24 moderate to high risk sites** Areas along Warringah Freeway, Artarmon Industrial Area, Flat Rock Gully Reserve Tip Site, Willoughby Leisure Centre, Middle Harbour, Spit, Balgowlah Golf Course, Wakehurst Parkway Seaforth.Risks noted incl: Heavy metals, hydrocarbons, pesticides, PCB, nutrients, cyanide, VOC, asbestos, landfill gas BL EIS Appendix M	**44 sites** **in and around the selected alignment are rated as having a moderate to high risk of contamination** Early testing has confirmed contaminants at several sites but more testing is needed to determine mitigation feasibility and cost
No. of significant Aboriginal Sites identified in the project footprint	**9** 8 are moderate to highly significant	**11** 5 are highly significant. Several are underassessed or yet to be inspected. Additional 3 PAD's identified BL EIS App L	**20** Unidentified finds are likely in areas of high significance to the Cammeraygal. Cultural significance of areas is under assessed.
No. of threatened or vulnerable species in the project footprint	**7 Fauna, 11 Marine, 4 Flora** **Species Offset Credits = 2** WHT EIS Chapter 19	**24 Fauna, 11 Marine, 2 Flora** **Species Offset Credits = 1099** BL EIS Chapter 19	**63** **Threatened or Vulnerable Species put at higher risk**
Amount of Green Space Lost	**7.29 ha** EIS Chapter 19, Table 19-12	**15.44 ha** BL EIS Ch 19 Table 19-13	**22.73 ha** **Lost**
Min no. of Trees to be destroyed/ impacted	**506 Trees** Appendix W -17	**3009 Trees** BL EIS Table 3.3 Arborist Assessment	**3515 Trees Removed** **Note: 100's more are earmarked as "potential impact"**

*Diesel is a Group 1 Carcinogen (IARC/ World Health Organisation)
**WHT and BL figures may not add up to the cumulative impact quoted in the EIS due to changes between the WHT and BL baseline assessment and traffic impacts of other projects
*** Ongoing operational requirements include maintenance, deluge systems, wastewater processing, lights, ventilation fans, air quality, monitoring, emergency exit systems, traffic difference with the project
**** Includes: Bent-winged Bats, Large Eared Pied Bat, Eastern Coastal Free Tailed Bat, Eastern Pygmy-Possum, Glossy Black- Cockatoo, Southern Brown Bandicoot, Red-crowned Toadlet, Southern Brown Bandicoot, Southern Myotis, Varied Sittella, White-bellied Sea Eagle, Barking Owl, Eastern Osprey, Little Lorikeet, Masked Owl, Spotted-tailed Quoll, Square-tailed Kite, Swift Parrot, Dusky Wood swallow, Brown Treecreeper, Little Penguin, Black Rockcod, White's Seahorse, New Zealand Fur Seal, Australian Fur-seal, Loggerhead Turtle, Green Turtle, Leatherback Turtle, Hawksbill Turtle, Flatback

Turtle, Grey Nurse Shark, White Shark. Grey-headed Flying-fox, Eastern Bentwing-bat Eastern Freetail-bat, Little Bentwing-Bat, Powerful Owl, White-bellied Sea Eagle. Eastern Bentwing-bat, Eastern Freetail-bat, Little Bentwing-Bat, Southern Myotis

J.2 Contamination risks are widespread and underassessed

Contamination risks have been identified across the project footprint however full sampling was not completed prior to approval and in many cases only a desk top review has been done. Key areas where contamination risks have been identified include:

- Sydney Harbour dredge/ crossing site
- Warringah Freeway – multiple construction sites including Cammeray Park
- Flat Rock Gully Dive Site
- Middle Harbour dredge/ crossing site

Additional testing was completed post EIS at the Sydney Harbour and Middle Harbour dredge sites. High levels of heavy metals and other contaminants harmful to human health were detected. PFAS was detected at both Harbour crossing sites. Further information regarding the marine **contamination testing results, including PFAS**, can be found in the post-EIS test report.[113] PFAS is the chemical detrimental to human health which has caused large time and cost blow outs around the West Gate tunnel. The submission by Dr Bill Ryall and several other marine based organisations covers these risks in detail.

Testing at the proposed Flat Rock Gully legacy landfill site is incomplete and the community has called for Phase 2 testing to be completed before the decision is made to place the major temporary dive site anywhere within the landfill bounds. Willoughby Council have notified the EPA of contaminated ground water and the council have been ordered to undertake further testing. The EIS under assesses the risk at this site classifying it in places as a household tip whereas there is clear evidence of significant industrial disposal. Historic records show that the tip was very hard to contain, and leachate readily travelled downstream and overground requiring substantial mediation at Tunks Park below. Community documents demonstrate that contamination occurred due to a highly productive Refrigeration Factory releasing contaminants into the creek and dumped waste, waste from North Shore Hospital, asbestos from building projects across the area and other materials. The tip was highly unregulated in it's early years at in some locations is reported to be 70 metres deep. The proposed dive site is in an area of landfill, a buffer zone protecting remanent forest and a large catchment/flood area. The community holds significant and well-founded concerns that opening up the tip site at this location will see contamination spread across the area.

Gas testing has also not yet been completed and there is ongoing evidence of continued settlement and instability. There are also concerns about transporting contaminated spoil out of the site through a recreational and residential area. There are 70 heavy trucks per hour estimated to operate at peak on the only access road to the site which is also a major school thoroughfare route and a residential zone. The site is on Flat Rock Creek which leads out to Middle Harbour. It is impossible to believe that the project has been accurately costed without quantifying the level of risk and assessing the effectiveness of mitigation measures at this site. It has also been confirmed by the project team that there is not yet a plan as to where contaminated waste will be disposed of or what route it will take raising community concern that Flat Rock Gully (and sites such as Cammeray Golf Course) may become another West Gate situation with the project delayed for years and the community put at risk while contamination issues are worked out well into the projects process rather than a thorough assessment being undertaken prior.

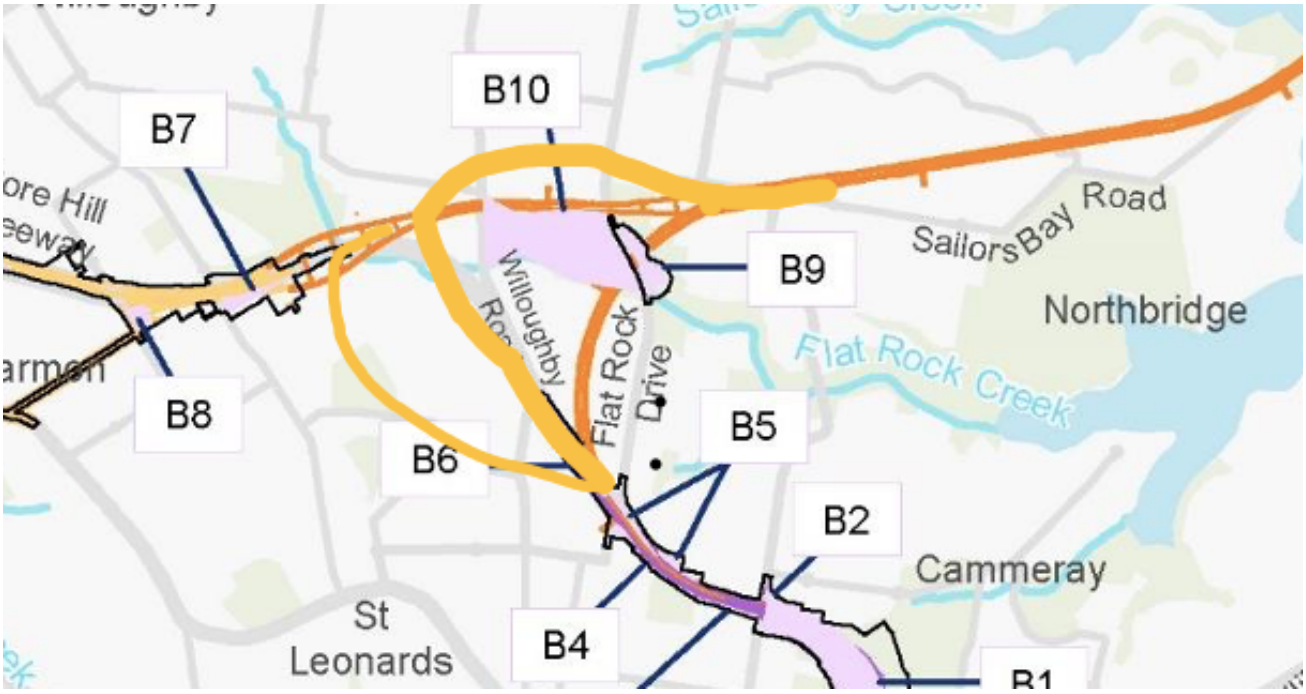
Confirmation that contamination exists at this site and additional testing is needed has been confirmed via Willoughby Council's recent DA for the Willoughby Leisure Centre development. The Council Assessment Report[114] stated the following at a site which sits at the edge of the landfill area i.e. is likely less contaminated that the dive site area.

[113] https://roads-waterways.transport.nsw.gov.au/projects/01documents/western-harbour-tunnel-beaches-link/whtbl-contamination-factual-report-marine-investigation-revision-b-2017-12.pdf
[114] Council Assessment Report - PPSSNH-198 - DA 2021_22 - 2A Small St https://www.planningportal.nsw.gov.au/planning-panel/alterations-and-additions-willoughby-leisure-centre

"Key findings:

- *Historic investigations indicated presence of **poor-quality fill beneath the site**, from the site's use as an incinerator and landfill between the 1930s and 1980. The depth of fill material increases further to the south from Small Street, the site having been a gully.*
- *There is **potential for asbestos** to be encountered during site works. This is not considered to affect the site's suitability for sealing with hardstand material. The extant (aged) landfill gas extraction system continues to be effective in managing low concentrations of landfill gas. The ongoing risk posed by this gas is low.*
- *Full characterisation of waste prior to disposal may require sampling. The developer must give at least 2 days' notice to the EPA before excavation of landfill material.*
- *The overall risk to human health is assessed as low, as the development will result in capping of landfill materials being restored.*
- *Groundwater assessment was considered a data gap, as monitoring and sampling have been limited and not provided data on potential groundwater contamination. 'Filling' this data gap is recommended."*

The community have suggested a relatively simple work around to avoid the area of fill at Flat Rock Gully – this would minimise risk of contamination migration, bushland loss, minimise the large amount of draw down expected at the site, avoid the heritage area in Naremburn and reduce the conflict between diesel trucks and children who use the route to travel to school enormously. The consent would be to have underground caverns to store the spoil and work back towards Cammeray and out towards Artarmon and eliminate the dive site at Flat Rock. When the northside Storage was built all spoil was shipped underground and via conveyors to minimise the impact on the community in the same way. Transport for NSW have stated that they think the alternative would add time and cost, but we would argue to the time and cost ot mitigate the tip will be greater. The yellow lines show two options one further toward Artarmon and one following Willoughby Rd. These loops avoid the rea of landfill all together (pink) and go under much deeper land.



Early works around the Warringah Freeway are being disputed due to contamination by the community as ground works have commenced in areas of known risk in and around sporting grounds and schools as previously mentioned re: transparency. One of the key conditions requested by the community over the Western Harbour Tunnel works was thorough testing and management of these sites around the Warringah Freeway. Whilst conditions were documented they have since been amended with Early Works now able to commence before testing is done. This is an extremely poor practice which stand to put children and communities at risk.

These early works include the set-up of several of the construction sites for the project and the relocation of utilities around the Warringah Freeway. The **EIS identified a moderate to high risk of heavy metal and other contamination in**

the soil close to the surface. Several community groups have sought clarification as to why site plans were not publicly available prior to commencement of works. The community has been told that procedures are being followed however it is disappointing to see testing and site plans uploaded after the date that the community has submitted queries and work has begun. A Site Plan and testing for the Ridge St site is dated 30th April 2021 well after soil was disturbed on and around the 9th April 2021. A "Management of Potential Contamination" notice was sent out on 6th May 21[115] and a memo, presumably to site managers/ contractors, which stated that:

*"With respect to "commencement of any work that would result in the disturbance", it has been assumed that **this would mean any works that disturb the ground surface to expose the underlying soils**, which could then represent a direct contact to site users or secondary contact via off-site discharges (dust, sediment flows) to off-site users and environmental receptors (assuming that the soils are contaminated). Based on the (activities identified for early works), it is unlikely that the early activities would represent **disturbance to the proposed construction support sites** (in context of the conditions of approval) and would unlikely represent an elevated exposure risk (if contamination is present) to site users and receptors above what is currently present on the respective sites. The placement of star pickets, survey pegs and geotextile pins in the ground at the respective sites are unlikely to increase exposure risk so long as these remain in the ground (i.e. not pulled out)."*

Early Works are disturbing the soil and not all contaminants have been tested for: Given the photo's of the works at the locations identified in the EIS clearly a considerable amount of ground works are occurring at these sites where a moderate to high risk of contamination exists, contrary to the above memo. This contradicts the statement that:

"it is unlikely that the early activities would represent disturbance to the proposed construction support sites".

The EIS identified serious contamination risks in the top 0.1-2mtrs of soil. The community remains unsatisfied with the conclusions made by the project team. The expectation was that each site would be tested and a protocol and communication put in place prior to any work commencing. To date the process has been reactive rather than proactive in this regard which has the potential to put workers and the community at risk. Additionally, now that reports are beginning to be available the community are querying the criteria selected to assess acceptable levels. It appears that standards for industrial sites have been used rather than recreational sites which the sites undergoing works all are ie) St Leonards Park, Cammeray Golf Course, Anzac Park etc There is a low level of tolerance in the community for poorly executed and/or communicated process given the large number of children in the area. Given that this is only the start of the project the effort the community has had to go to to ensure risks are appropriately managed has lowered confidence in the assurance processes involved with the project overall. There is also concern that these works have been allowed to proceed when a Parliamentary Inquiry is being held. Given the wide scope of issues it would be prudent to hold off on more permanent impacts until the viability of the project overall is assessed. The community has recently been notified that tree removal will be commencing – a loss of habitat and tree canopy is a high price to pay if it is found that the cost to remediate the site is not financially viable.

Additional information regarding the contamination issues around the Warringah Freeway can be found at:

J.3 Contamination Management Measures have been watered down post-approval

The Western Harbour Tunnel and Warringah Freeway (WHTWFU) EIS identifies many sites at risk of contamination.

"*Based on the information reviewed, a number of moderate to high risk potential AEIs have been identified. Where extensive investigations have not been carried out (all high to moderate risk sites with the exception of the Rozelle Rail Yards site), potentially contaminated areas directly affected by the **project will be investigated and managed** in accordance with the requirements of guidance endorsed under section 105 of the Contaminated Land Management Act 1997." [116]*

[115] https://caportal.com.au/rms/wht/project-approval?hview=media-2083fc-wfu-construction-support-sites-early-activities-management-of-potential-contamination

[116] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8863%2120200116T053321.586%20GMT page 95

WHT Conditions of Approval have changed post approval.

E115 "Prior to the commencement of any work that would result in the disturbance of moderate to high risk contaminated sites as identified in the documented listed in **Condition A1**, a **Detailed Site Investigations** must be undertaken by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand's "Certified Environmental Practitioner" (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia "Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme."

Post Approval "Amended Environmental Management Measures"[117] issued in September 2020

After the approval of the EIS the keywords *"prior to construction"* were removed which would ensure risk management procedures are put in place prior to works commencing. It is not clear who approved the amendment or why and how these measures comply with the EIS and Conditions of Approval. The community was relieved that testing would occur prior to commencement given the proximity to homes, parks and schools. The fact that this is now not mandated to occur is extremely concerning.

SG6	Construction	Impacts on site workers and/or local community through disturbance and	Potentially contaminated areas directly affected by the project will be investigated and managed in accordance with the requirements of guidance endorsed under section 105 of the *Contaminated Land Management Act 2008*.	WHT/WFU
Ref	**Phase**	**Impact**	**Environmental management measure**	**Location**
		contaminated material	• Easton Park • Birchgrove peninsula (including Yurulbin Park) • Balls Head peninsula • Waverton Park • Warringah Freeway (from North Sydney to Cammeray). Subject to the outcomes of the investigations, a Remediation Action Plan will be implemented in the event that site remediation is warranted ~~prior to construction~~. The Remediation Action Plan will be prepared and implemented in accordance with Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning and EPA, 1998). An independent NSW EPA Accredited site Auditor will be engaged **where contamination is complex** to review **applicable** ~~all~~ contamination reports and evaluate the suitability of sites for a specified use as part of the project.	

It is not clear why measures to manage impacts of contaminants on workers has been removed and replaced with waste management. The need to manage contamination given the risks identified should be part of the Environmental Management Plan.

[117] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=EXH-2682%2120200914T005951.156%20GMT

SG7	Construction	~~Impacts on site workers and/or local community through disturbance and mobilisation of contaminated material~~ **Waste Generation and Disposal**	Any soil/fill materials surplus to construction will be classified in accordance with the NSW EPA (2014a) Waste Classification Guidelines.	WHT/WFU

Detailed Site Investigation Plans have not been made available to the community prior to early works commencing.

The community has queried the start of works at the Ridge St, Rosalind St, Anzac Park and Cammeray Golf Course but have been told through a series of meetings that procedures are being followed however no documentation to verify this was published prior to works commencing. The EIS very clearly states that further testing and protocols are needed before site commencement. There appears to be a lack of compliance and transparency around timely management of potential contamination and the post-approval documents don't align with the conditions that the community were promised.

High levels of contaminants have been detected in Groundwater and Middle Harbour Sediment

"The DPGA (2018e) report indicated that groundwater sampling was carried out from wells B114A (Artarmon), B127A (North Balgowlah), B134A (Bicentennial Reserve, Willoughby) and B238A (Northbridge). Groundwater samples were analysed for common contaminant compounds including heavy metals, nutrients, PAH, TRH and BTEX. Table 4-12 details contaminant compounds **detected above the respective water quality guidelines** within the groundwater samples collected. It is possible that the concentrations of contaminants above guideline levels may represent contamination, especially those reported in well B134A (heavy metals and ammonia) **located in Bicentennial Reserve, Willoughby**, which could be associated with historical landfilling next to the well location."[118]

The impact on the environment of these project has been covered in detail by many groups and experts.

We recommend that the Committee refer to submissions by Save Flat Rock Gully and Middle Harbour, Bicentennial Reserve and Flat Rock Committee, Save Manly Dam, Saving Sydney's Trees, WEPA, Baringa Bushcare and Di Thankur to name a few. Risks are not only limited to the local environment but downstream habitats, parks and human health stands to be impacted due to the location of dozens of moderate to high-risk sites. These sites are in very close proximity or part of the land where there are homes, schools and heavily used sports fields attended by thousands of children weekly. They are also in catchment areas which lead to Sydney and Middle Harbour. Many of these groups have formed a directory to help the community understand the impacts and more information can be found at tunnelconcernedcommunities.com. The reasons for the high level of impact and risk faced by this project is it's location, industrialised history of the areas it passes through as well as the construction methods chosen i.e. Immersed Tube. Whilst other road tunnels have had detrimental amenity, property impacts and have even experienced issues around tip sites (i.e St Peter's) these tunnels now move into sensitive foreshore environments, which are major catchments to Sydney Harbour and Middle Harbour and are areas of even greater uncertainty when it comes to hydrology and geology. The issues experienced around WestConnex are likely to be compounded and amplified due to these conditions.

J.4 Aboriginal Heritage Risks are significant, and conditions have been watered down post-approval

There are at least 20 sites which stand to be impacted by the project, many of these are Highly Significant sites that reflect that the North Shore was Cammeraygal land. The Cammeraygal are written about extensively in the accounts of first settlement and well into the 1800's and were the ceremonial leaders across the wider Sydney area. Not only is the risk to Aboriginal Heritage outlined in the EIS unacceptable the conditions protecting Aboriginal Heritage have been watered down post approval.

Conditions of Approval Require that: E50 The Proponent must take all reasonable steps so as not to harm, modify or otherwise impact Aboriginal objects except as authorised by this approval.

[118] https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8862%2120201207T050649.624%20GMT

Environmental Management Plan: was amended on September 2020 and removes the protections over Aboriginal sites from the plan

Aboriginal cultural heritage				
~~AH1~~	~~Pre-construction and Construction~~	~~Aboriginal heritage – vibration, and settlement impacts~~	~~Prior to construction, further consultation with Department of Premier and Cabinet (Heritage), the Metro LALC and the RAPs will be carried out to decide an appropriate course of action for previously recorded Aboriginal sites not assessed during archaeological surveys due to site accessibility constraints.~~ ~~If new information regarding site condition and location is identified during consultation suggesting the sites may be subject to impacts due to vibration and settlement, then mitigation measures AH2, AH3 and AH4 would apply.~~ ~~If during construction works a site is located, Department of Premier and Cabinet (Heritage), an appropriately qualified archaeologist and the Metro LALC will be contacted and the site will be re-recorded in situ.~~ ~~If the site is determined to be within the construction footprint, consultation between Department of Premier and Cabinet (Heritage), Roads and Maritime and Metro LALC and RAP groups must occur with the aim of avoiding, minimising and managing adverse impacts on the site before construction works at the location recommence.~~	~~WHT/WFU~~

J.5 The contribution of the project to air pollution and elevated health risk must be re-assessed

The project alignment between Rozelle to Balgowlah cuts through the highest density of schools in Sydney. This fact is relevant to the risk assessment as children are for more susceptible to air born pollutants. The impact on children has been well covered by submissions from Asthma Australia and Lung Foundation and a letter to the Premier, Health Minister and Environmental Minister's from Sydney Children Hospital doctors. We will not repeat all of that research here however some key points of note follow. The cost of ambient air pollution in Greater Sydney has been estimated as

"between $1.01 billion and $8.40 billion per annum"[119]

and this is a growing concern as, contrary to the impression project documents give, our transport emissions are growing overall. Further important information regarding air quality and the project can be found in Appendix A.

J.6 There will be considerable air quality impacts during construction

Dust – both EIS documents allow for stockpiling outside the sheds in areas near children's schools, homes and sports fields. For example, at Cammeray 4500m3 and at Flat Rock Gully (adjacent to Netball Courts and the Baseball Diamond) 500m3 is permitted to be stockpiled according to the EIS. We have been given verbal assurances that dust will be managed however both past projects and the EIS attest to the fact that this is very difficult to do successfully in a highly urbanised area. Given the contamination risks identified at these sites dust carrying airborne contaminants is a valid community concern. Early Works have commenced on potentially contaminated land and already we are seeing no dust mitigation or monitoring methods in place ie) no wheel washes and no barrier between works and sports fields. The EIS admits that dust cannot always be managed successfully and is very dependent on daily weather patterns. Schools and community groups have asked for real time air quality monitors with alert systems so that decisions can be made on the day as to whether school and sporting activities should continue at places in and around major sites such as St Leonard's Park, Cammeray Park, Bicentennial Reserve and Baseball Diamond. Alert style air quality monitors have not been made a condition of approval for the Western Harbour Tunnel project and the community is concerned that the air quality committee will not have adequate representation from the parent community in order that children's best interests are represented and action is taken in a timely manner to protect children's health.

Silica – the area being "mined" is essentially sandstone which may lead to a Silica risk which has been underassessed. There is emerging research into the harm that Silica can cause, and this includes for both workers and residents around the dozens of work sites that will make up this project. Children exercising at local parks are particularly susceptible and

[119] https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Air/air-pollution-economics-health-costs-greater-sydney-metropolitan-region-050623.pdf

a buffer zone of at least 500m has been recommended by experts[120] Early Works have already commenced within range of this buffer.

Diesel – in areas that are already at air quality criteria diesel is set to be a very significant problem. The number of trucks in and around homes, schools and parks will be in the thousands across the duration of the project. The Environmental Scorecard demonstrates the volume of diesel emissions which are classed as a Class 1 Carcinogen according to the World Health Organisation. In total there will be over 10,000 construction vehicle movements per day in areas full of sensitive receivers.

The Beaches Link Program of works will require, 4950 construction vehicle movements per day, the following construction vehicle movements at peak according to the EIS:

BL1 Cammeray Golf Course, Cammeray 305/ 275 = 580
BL2 Flat Rock Drive, Naremburn 355/545 = 900
BL3 Punch Street, Artarmon 580/370 = 900
BL4 Dickson Avenue, Artarmon 500/90 = 590
BL5 Barton Rd, Artarmon 120/35 = 155
BL6 Gore Hill Freeway median 100/10 = 110
Total Artarmon = 1755
BL7 Middle Harbour south cofferdam 60/4
BL8 Middle Harbour north cofferdam combined with above
BL9 Spit West Reserve 200/220 = 420 and vessels 8/16
BL10 Balgowlah Golf Course 1195/ 495= 1290

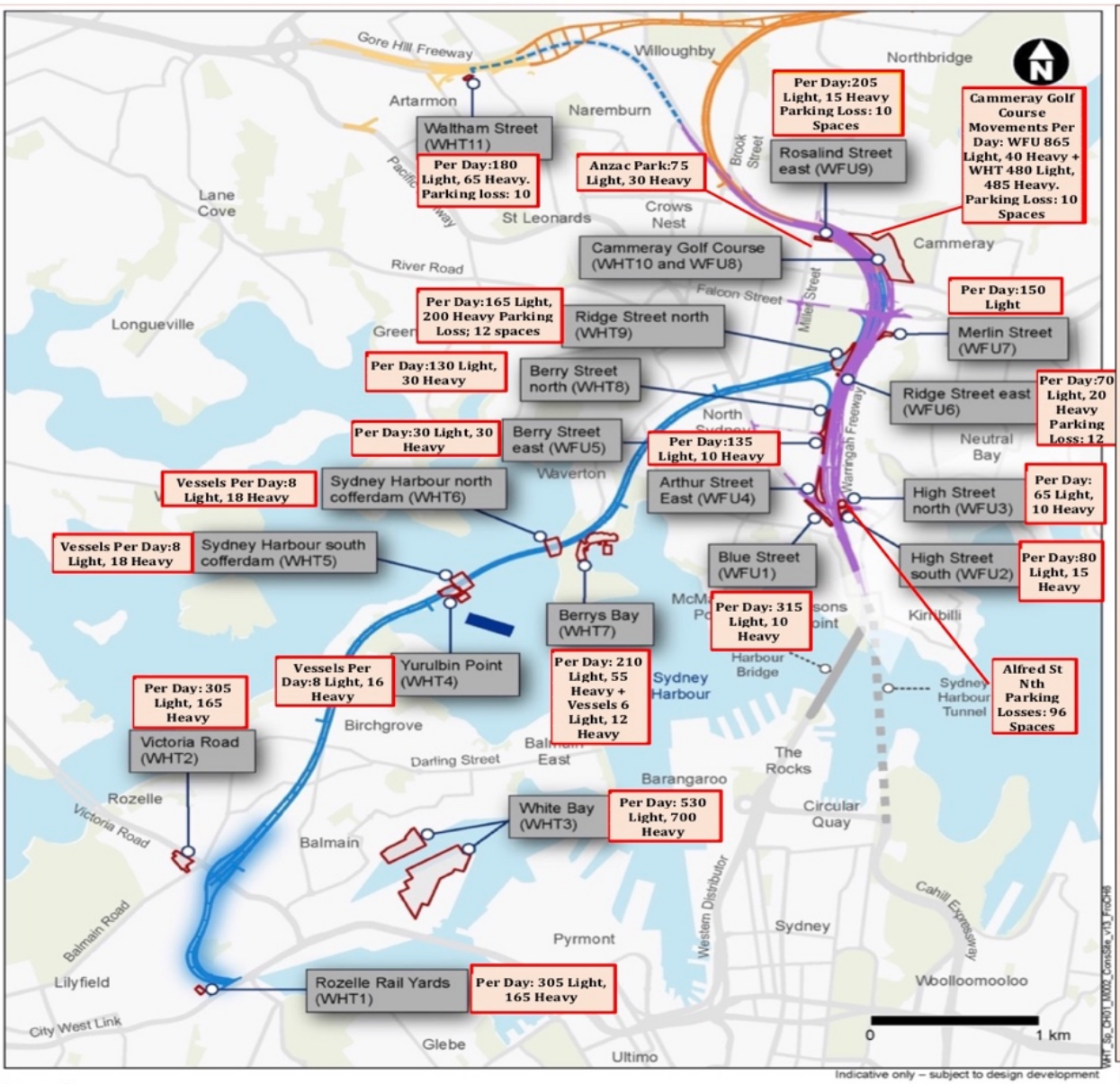
Total Additional Vehicle Movements Daily = **4950 per day**
Total Addition Vessel Movements Daily on Middle Harbour = **88 per day**
Note the Western Harbour and Warringah Freeway project which overlaps with this project between 2023 and 2026 requires another 6343 daily movements between Rozelle and Cammeray as per the map following

[120] https://drive.google.com/file/d/14xEtEu3VNpEBsaPbic8r8jDoPbB8nqat/view?usp=sharing

The Western Harbour and Warringah Freeway will require 6343 construction vehicle movements per day:

Western Harbour Tunnel and Warringah Freeway Upgrade Construction Sites and Vehicle Movements

Total Construction Vehicles Movements Daily = **6343*** (peak 2021-2024)
Total Known Parking Space Losses = **150** (does not include construction worker parking) Note: Does not include Beaches Link Program of Works which involves an additional **4950** daily construction vehicle movements (2023-2028)



Schools in Area:

Artarmon Public
Willoughby Girls
Willoughby Public
Northbridge Public
St Philip Neri
Shore Prep
Cammeray Public
Naremburn School
Anzac Park
Neutral Bay Public
Wenona
Cammeraygal High School
St Aloysius
St Mary's
North Sydney Boys
North Sydney Girls
North Sydney Dem
Monte SA College
Shore Cammeraygal
Montessori
Loretto Kirribilli

Balmain Public
Rozelle Public
Inner Sydney Montessori School
St Scholastica's College

Legend

Construction features
- Western Harbour Tunnel
- Warringah Freeway Upgrade
- Communications cable for motorway control centre
- Fit out and commissioned as part of Western Harbour Tunnel, constructed a part of WestConnex M4-M5 Link
- Construction support sites
- Mooring site

Connecting projects
- Beaches Link
- Gore Hill Freeway Connection

WHTWFUSTTCTV.2

Above map is an extract from the Western Harbour Tunnel and Warringah Freeway EIS. Figure 6-1 Overview of the Construction Support Sites. Truck movement and parking information has been added from Appendix F. All EIS information is available at https://www.planningportal.nsw.gov.au/major-projects/project/10451. This is not an exhaustive list of construction and traffic impacts, please also complete your own research as this is intended as a guide only.

J.7 Summary of Operational Air Quality Concerns (See Appendix A for detailed analysis)

This is an extremely complex area. We have reviewed the data, EIS claims, further reports and independent reviews. Further explanation and data regarding these concerns can be found on Appendix A. Based on the information provided to the community there is a low level of community confidence in the safety of proceeding with this project in the current location for well-founded reasons, particularly due to the following findings from other stack studies:

1) Vehicle pollution has serious **short- and long-term health impacts**. Any concentration and all increases can cause harm. There is a tendency to excuse air quality increases as minor, any increases should be taken seriously.
2) The route traces the **highest density of sensitive receivers** to date ie Sydney's largest school zone between Rozelle and Balgowlah where approx. 20,000 children attend school. The project does not recognise that thousands of children come into and move through the area daily as the route is a major school and pre-school zone. Children are more susceptible to short- and long-term effects from air pollution
3) The **background air quality** along the route is already at or projected to be **above limits**. Project modelling puts several criteria well above limits by 2027. Given this fact it is very concerning that local air quality monitors were not used in modelling. Given the proximity of schools and pre-schools to major roads along the route a more specific view of air quality and health impacts is needed.
4) Meteorological conditions have a significant influence on air quality modelling. **The meteorological modelling used has been questioned by experts** and Sydney trends place the majority of schools in the area of highest risk as far as stack dispersion is concerned from the Cammeray stack ie) North/West
5) It is clear within the EIS that the majority of **community receivers (ie sensitive receivers**) nominated **receive a higher dose of pollutio**n as a result of the project and/or are already predicted to receive above criteria pollution. The government has a responsibility to action this rather than make the situation worse. A detailed analysis of the contribution of the project to sensitive receivers is covered in Appendix A.
6) **Not all sensitive receivers were modelled** in the community receiver modelling and community receivers were included that are well away from the project. This appears to have created bias in reporting net air pollution results. The Independent Reviewer has commented on this issue.
7) Previous studies have shown that "*Computer and wind tunnel modelling, as well as observational studies, suggest that the **greatest impacts from a stack occur some distance from the stac**k (eg 600 – 1,200m in the case of M5 East (Hibberd, 2003)).*"[121] there are many schools and pre-schools within this range.
8) The CSIRO found that "*The **greatest impact occurs along the valley** with peaks in the ground-level concentrations located approximately 600 m east of the stack and 700 m west- southwest of the stack. A smaller peak, about half the magnitude of the other two, is located about 600 m northwest of the stack. The pattern of ground-level concentration matches the predominant wind directions in the region of east-northeasterlies, south-southeasterlies and westerlies.*"[122] The valley impacts are particularly concerning due to several schools and sports fields being located in valleys within 600-1.2km from these stacks ie) Bicentennial Reserve, Artarmon Park, Tunks Park, Primrose Park and Forsyth Park.
9) The projects total impact is not always communicated but rather the **stack only impact**. Given the scale of impact on the Warringah Freeway and surrounds the surface level impact needs to be re-considered. It is noted that the CHO was only asked to comment on the stack only contribution of the project.
10) As demonstrated **further traffic modelling is needed** to determine the total project impact. The Operational Traffic Model only analysed a few streets around the project whereas there is a far more widespread impact according to intersection analysis and council submissions which means further delays across the North Shore and Willoughby. An accurate analysis of the surface level traffic increase is needed to accurately assess the air quality contribution of the project. It should be noted that TfNSW continue to claim that surface level traffic will improve based on an assumption rather than the evidence presented in the EIS that delays and therefore traffic on local roads increase as a direct result of the project.
11) Claims that air quality distribution will be "minimally impacted" do not reflect an analysis of the health impact. The **health assessment should be the assessment that draws conclusions** however the health assessment is reliant on the accuracy of traffic modelling inputs. These need to be updated to reflect accurate travel times, local traffic volumes and other missing inputs canvassed in this report.

[121] https://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0017/51911/060814-FINAL-Initial-Report-Tunnel-Air-Quality-WEB.pdf
[122] http://www.cmar.csiro.au/e-print/open/hibberd_2003a.pdf

12) The quantity and age of **sensitive receivers at each location is not adequately considered** in the community receptor conclusions. The RWR modelling does look at population and workplace statistics however it is not clear how the large number of children both living and coming into the area are accounted for. The Independent Reviewer noted that only 100 children have been estimated in general whereas most schools have between 500-1000 children in the area.
13) Active transport links have been planned along the alignment in some places ie) Wakehurst Parkway – the risk to an increasing proportion of **cyclists/ active transport users from vehicle pollution** has not been assessed. This is particularly concerning due to the very large increase in heavy vehicles modelled along routes such as the Warringah Freeway which will receive a **60%+ increase in heavy vehicles** when compared to today's level of traffic.
14) All **experts have raised serious questions** about the air quality assessment including the Chief Scientist, the Chief Health Officer and an Independent Expert Reviewer. It should be noted that the AQCS did not directly review the modelling – overseas experts completed the review and their knowledge of the area they are assessing is not clear. Additionally, the CHO was limited to comment on stack contribution only not the health impact of the project overall.
15) A FOI demonstrates that **tall buildings in the area, now and in future stand to be impacted** as do future development controls for high rise development in an area where there is considerable planning underway. The assessment was limited to 300mtrs around the stack with a focus on dispersion rather than a quantification of risk to high rise residents. The documents allude to further advise being required to council post-approval. The NorthConnex project post approval documents demonstrated controls may need to be implemented across a far wider area. This could have a major impact on future planning and health in the area and the cost of this should be assessed as part of the BCR.
16) An assessment that the modelling is "detailed and thorough" does not mean health outcomes are positive. A process can be detailed and thorough and produce poor outcomes. The health outcomes are not presented in a way that the community can easily understand. Given the proximity to schools and the large number of children in the area **modelling of the health impact to each major sensitive receiver** ie) schools, Royal North Shore Hospital and Parks should be undertaken to better understand the outcomes. Data points away from the area of impact should be excluded from averaged claims ie) Roseville and Mosman.
17) Previous desk top reviews and theoretical conclusions appear to **bias conclusions around this project** across the board. The project should be taken on it's own merits and conclusions drawn on the basis of the modelling data only. It is scientifically not valid to ignore the results of data and instead draw conclusions from a more favourable desk top review which preceded the data collection and concluded that "well designed tunnels have a negligible impact on air quality" or "a reduction in start stop traffic will reduce pollution". The practice of using generalised assumptions in relation to exceedances and uncertainty does not build confidence in the objectivity and rigour of the assessment.
18) The air quality results don't pass the "school gate /pub test". There is a 63% increase in heavy trucks predicted to move through the Warringah Freeway corridor compared to today's level, but the air quality conclusions state there will be a negligible deterioration in air quality overall. The majority of these trucks will continue to rely on diesel up to and beyond the opening of the project and data shows that we will have increasing diesel reliance. **There is a distinct disparity between the traffic data provided and the air quality analysis**.
19) Health risk is generally based on the mortality level the community will accept. Given the sustained objection to an increase in cars and pollution in the area and the concerns that already exist the mortality rate deemed "acceptable" by the project of **1 in 10,000 is not acceptable**. The community expects that any project that addresses existing congestion will improve health outcomes rather than make them worse by any degree. Any decrease in health outcomes should be considered unacceptable. This is not a project the community impacted has asked for, the pollution levels are already problem, there is a high degree of uncertainty and sensitive receivers are adversely impacted. These are all reasons cited by WHO to reassess the acceptability of the risk assessment.
20) **EV's will not offset the volume of trucks and additional vehicles** on the road sufficiently to have any material effect on air pollution by the time the tunnels open and well beyond ie) volume will out strip technology. In fact vehicle based pollution will continue to increase if the projects go ahead for some time (see Appendix A)
21) The contribution of the project to **Sydney's overall pollution should be further considered**. Sydney sits in a basin and is often subject to trapped pollutants due to climate and weather events. Sydney now has the largest toll road network in the world and our vehicle emissions are increasing. To add to that we are adding a second airport to that basin and are considering incinerating our rubbish. The cumulative impacts of "induced pollution" needs serious consideration around human health. Representing that as proportional to bushfire pollution etc is invalid. The pollution we can do something about is the responsibility of decision makers. Simply

because pollutants are dispersed at a single source does not mean they do not contribute to Sydney's pollution load overall particularly where VKT's and emissions are significantly increased overall by a project.

Further detailed information regarding air quality can be found in Appendix A however a few key issues are stated here:

J.8 High Rise buildings and the impact on planning controls are key issues for this project which need far greater consideration as to the cost/benefits and health impacts

The impacts at ground level from a stack can be considerable but so can the impacts at height due to the way pollutants are dispersed at speed. The EIS documents model the air pollution impacts to elevated buildings up to 300 meters away from the stacks at various heights. It is not clear why a proximity of only 300 metres has been considered. The focus of the assessment is on dispersion and drawdown rather than contribution to sensitive or residential receivers. In other words, it may be valid to set a limit of review at 300 meters when considering the effectiveness of dispersion and when considering the ground level impacts only however the health of high rise residents also needs to be risk assessed in an area dense with high rise development and plans for more.

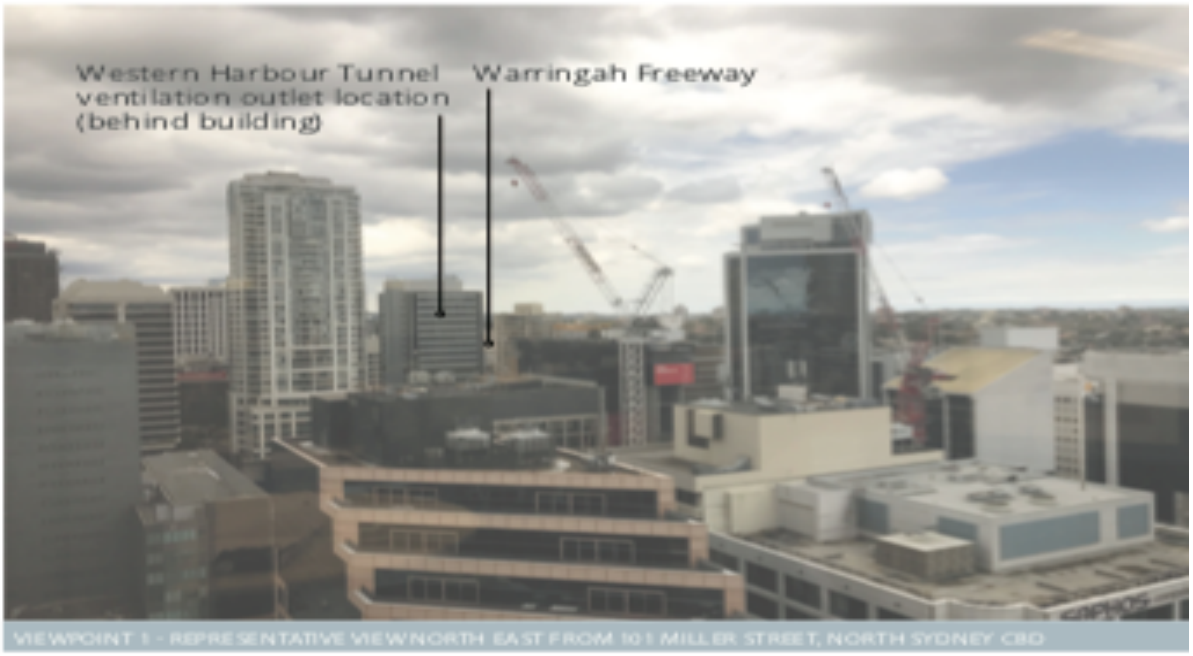
The project documents state that the project team will work with local councils to set development controls for high rise developments later. This is very concerning. The need for development controls around the stacks should be known and costed as part of the BCR and the pollution contribution to residents should be fully risk assessed prior to approval.

A document called the "Northconnex Local Planning Air Quality Assessment Report, December 2019" was issued to local councils at the end of the NorthConnex build. We obtained this document under a freedom of information request after it was taken down from the NorthConnex website after our submission letter was distributed to Parliament. The report demonstrates modelling that buildings at elevation are impacted across a great distance under a worst case scenario ie breakdown or heavy traffic.

Worst Case: Distance from ventilation outlet that concentrations are below concentration criteria

Ventilation outlet	Height above ground	Distance from ventilation outlet	
		1-hour NO_2	24-hour $PM_{2.5}$
		Threshold of 120 $\mu g/m^3$	Threshold of 3 $\mu g/m^3$
Northern ventilation outlet	0 m	400 m	600 m
	10 m	400 m	700 m
	20 m	450 m	1750 m
	30 m	1800 m	2200 m
	40 m	2550 m	2800 m

The document however later states that only a 300 metre buffer is needed for future development. It is not clear how this is determined. It is concerning that the costs may be born by the developer: *"A development that is proposed to be located within the volume will be required to demonstrate through a detailed assessment that it will not be impacted by the plume and will not impact the dispersion of the plume."* This effectively puts the onus and cost back onto developers



Experienced Environmental Engineer and consultant, Noel Child questions the assumption that the buffer only needs to be 300 metres and why incremental increases in air pollution are acceptable when it comes to tunnels where it is not accepted in other projects:

"Higher levels of air pollution are likely at elevated levels – and despite the presence of many existing and proposed high rise residential developments in the vicinity of the various tunnel emission stacks, no adequate modelling or projection of air pollution impacts from the proposed tunnel emission stacks at elevated levels has been undertaken."

He also points out that the same standards should apply to this development as others regarding air pollution.

"The air quality report has not in my opinion clearly differentiated between assumed background air pollution levels, and incremental pollution generated by the development. I will use PM2.5 particulate matter as an example. Current air quality practice requires that for a sensitive applications (i.e. a primary school or childcare facility) it must be demonstrated that PM2.5 sourced from motor vehicle combustion and associated processes (eg brake pad and tyre wear) and impacting on the application should be less than 1 microgram per cubic metre (µg/m^3)."

Increases in PM2.5 must not be modelled more than 1 µg/m^3 at any point for a new development. Why then is a 300 metre buffer zone sufficient when the modelling shows that under worst case conditions residents at elevation will receive unacceptable levels of pollution? Both short term exposure and repeated short-term exposure e.g.) at peak hour every day can create serious health effects. Given the number of children living in the area and an increasing number living in high rise buildings this is particularly concerning. There is little evidence to support the assumption that air pollution meeting criteria "on average" protects human health, and that incremental change makes no difference.

This picture from the Western Harbour Tunnel EIS illustrates the number of high-rise buildings in proximity and many more are planned for Crows Nest, North Sydney, St Leonards and Artarmon. There are two stacks in proximity and in the case of Cammeray these will be double stacks servicing 15.5kms of pollution. The conditions of approval (E15) require that a post approval document be delivered to assist council's development planning controls around stacks

The Herbert St Development plan published by DPIE[123] (excerpt below) shows some of the High-rise development planned (note: placement of stacks is not exact due to scale of map but in the general direction and location – Lane Cove Tunnel Stack is also in proximity. Both the cumulative ground level impact (i.e. approx. 600-1.2km away) and the impact to residential premises at height are a concern. It should be noted that far higher buildings are planned or in place for the area than have been modelled in the NorthConnex scenario

[123] https://virtualideas.sharefile.com/share/view/sdaa7006dc044c98a

J.9 Recent tunnels have not demonstrated that the practice of placing untreated air ventilation stacks in the midst of sensitive receivers i.e. children is safe

In opposition the Premier was highly critical of the idea of untreated pollution stacks in residential communities[124] but now is supporting the placement of multiple untreated stacks in locations where there are sensitive receivers, especially medical patients and children. The evidence since the statement was made (see attached appendix A) does not support a change of policy, in fact the range of disease and impact on children from vehicle pollution has been further researched and the impact of the mass implementation of stacks with unfiltered/untreated pollution dispersion across Sydney is yet to be determined via scientific study under normal post-Covid operating conditions. Given the general lead time in long term disease becoming evident the impacts may not be seen for many years. The assertions that this is a "safe" proposition are wholly reliant on air dispersion modelling and sample monitoring – rather than the health outcomes. The evidence in the EIS certainly does not lead to a level of confidence that the project being placed in these locations will not lead to poorer health outcomes across an area.

Noel Child sites the need to close NorthConnex repeatedly during times of heavy traffic as evidence that "Worst Case" conditions do occur and create unacceptable levels of air quality. Given the demand on the Warringah Freeway and the density of high rises, schools and medical facilities the wisdom of placing a project which significantly increases road based vehicles esp freight in the area needs to be re-examined. The project also creates more surface pollution in and around schools which should be added to the health assessment.

"The only comparable long and heavily trafficked road tunnel that can be used for comparison is the NorthConnex tunnel, which opened in late 2020. Traffic in that tunnel has typically been reduced by the ongoing effects of the Covid situation in Sydney. Notwithstanding, during Easter 2021, at a time when traffic loads on NorthConnex and associated roadways approached maximums, the tunnel was repeatedly closed to traffic because of air quality problems. Under something approaching maximum load, this indicates that the type of longitudinal ventilation proposed for Harbour Crossing/Northern Beaches project – which includes longer tunnel sections that NorthConnex – cannot be relied upon to provide all of the ventilation and air quality outcomes reasonably required. This also very clearly indicates that under loads approaching maximum, the build-up of harmful contaminants in tunnel air, and the associated and inevitable imposition of unreasonable and non-compliant contamination burdens near emissions stacks, is an established reality. In my opinion, the air quality assessment undertaken for the Harbour/Northern beached project, and to the extent relevant the review report, have collectively failed to adequately and objectively demonstrate that harmful air quality impacts will not be caused by the proposed development. In the absence of such a demonstration, the established principles of the prudent avoidance of risk, and precaution, should apply."

[124] https://www.facebook.com/watch/?v=462336434510306

The cost to the planning system and councils should be factored into the BCR if planned development is limited in any way. Exceedances should be factored into the assessment of health risk and associated costs accounted for.

J.10 The Project creates greater car reliance and increases emissions

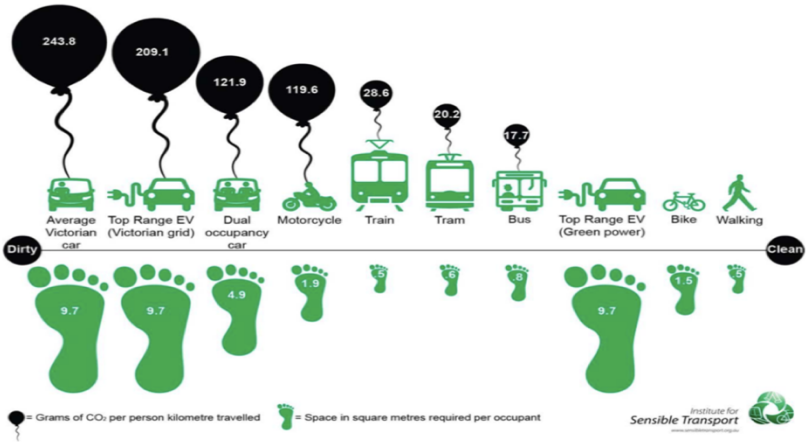
The VKT's travelled if the projects go ahead (Do Something Cumulative) are considerably more than if they don't (do Minimum) The project creates greater vehicle reliance and is dependent on fuel and engine efficiency assumptions to bring down those emissions. The project should not be assessed against external factors that may or may not occur – it should be assessed on the basis of it's own merits.

Traffic data is presented in terms of vehicle kilometres travelled (VKT). This is a measure of one vehicle travelling one kilometre and is used in traffic studies to report and present on traffic volumes. Table 3-15 presents the total VKT modelled for 2027 and 2037 scenarios.

Table 3-15 Traffic VKT for Do minimum case/Do something/Do something cumulative – year of opening (2027) and future year (2037)

Year	Scenario	VKT/day
2027	'Do minimum'	12,637,193
	'Do something'	12,859,303
	'Do something cumulative'	13,261,788
2037	'Do minimum'	13,633,873
	'Do something'	13,945,836
	'Do something cumulative'	14,584,266

J.11 Vehicles have a significantly greater emissions profile than public and active transport alternatives[125]



J.12 Northern Beaches residents clearly want Sustainable Options and less Cars on the Road – this project does not deliver

The Northern Beaches Council have identified that:

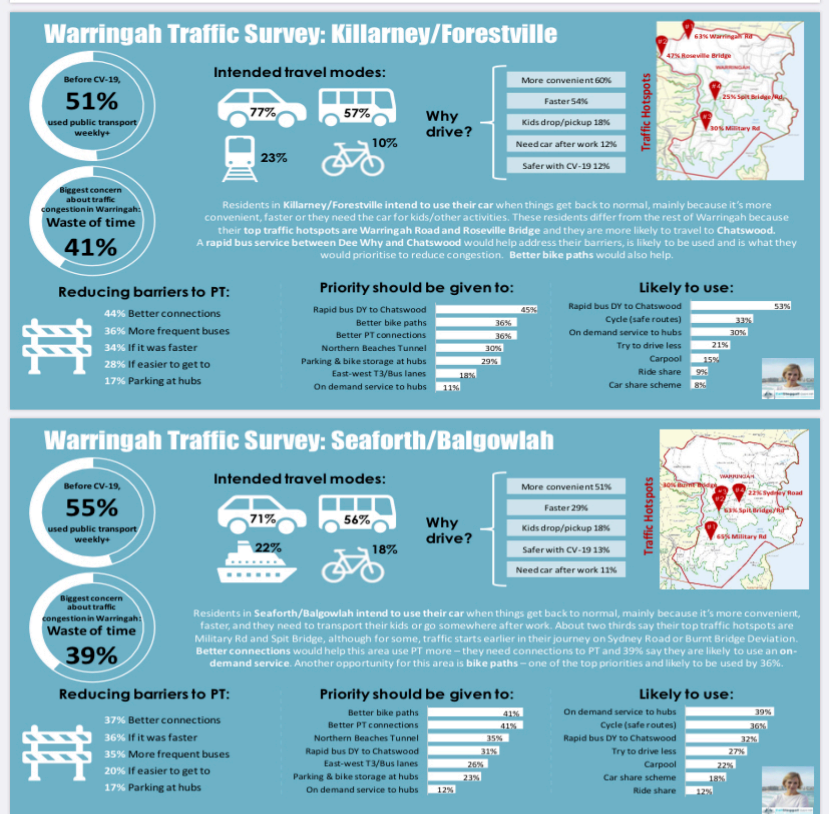
"Overall, transport contributed to 30% of all carbon emissions on the Northern Beaches. By and large, cars are the major contributor to all transport related carbon emissions at 26%.".[126]

The council have set ambitious goals to reduce car reliance in consultation with the community. The fact that this project increases VKT's and emissions sits contrary to the Northern Beaches own goals. The increased VKT's and comparison of emissions from various forms of transport is shown below. The project is not a sustainable or climate friendly option when benchmarked against doing nothing and when benchmarked against a metro of the same length.

In 2019, Zali Steggall conducted a survey[127] with most participants across the Northern Beaches areas stating that their most important concerns were Climate Change and Environment. In the areas this project claims to service the majority preferring public transport and active transport options above the toll road tunnel. Whilst the toll road idea was still in the mix for some areas (prior to the EIS release and often in areas who have not had consultation about the project ie who presume a benefit) other major transport options had not been proposed. Given the paradox between climate, environment and the realities of this toll road proposal it would be interesting to see a survey run with a project that has a lighter footprint.

In general, the feedback has been that there has been a very low level of consultation on the Northern Beaches around the details of the project and many assume the route is still via the Spit, Military Rd will see reduced traffic and that there are limited environmental impacts. If the motivation for the Northern Beaches link is to meet voter expectation, then it stands to reason that the Northern Beaches should be properly educated on the project and given a comparative option. A decision in the vacuum of options which clearly does not deliver a project that align with constituents' expectations is not a decision in the public's best interests. The project's impacts will speak for themselves in terms of wide-ranging construction impacts and traffic once built.

[125] https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.com-participate.files/6615/2948/1938/Transport_Strategy_Refresh__Zero_Net_Emissions_Strategy_-_Greenhouse_Gas_Emissions_and_Air_Quality.pdf
[126] https://www.northernbeaches.nsw.gov.au/council/news/seven-local-traffic-facts-might-just-shock-you
[127]https://d3n8a8pro7vhmx.cloudfront.net/brains/pages/358/attachments/original/1602460713/0616850_MANLY_DAILY_Warringah_Traffic_Survey_2020_1.10.20.pdf?1602460713



J.10 The Project does not appear to meet Sustainability Requirements under the Protection of the Environment and Administration Act 1991 (NSW)

The **precautionary principle** has not been employed in terms of the sensitivity of the foreshore environments, the presence of contamination risks, aboriginal heritage or the construction method chosen particularly given that no alternative public transport analysis has been completed. **Intergenerational equity** is not achieved as future generations will have less green space with a higher population, the project induces demand and encourages more car use, the project demonstrates that areas around the project footprint will experience higher levels of congestion and pollution. Given the risks to threatened species and the high reliance on complies and wide-ranging mitigation measures which have not been fully scoped as part of the EIS it is difficult to claim that **biodiversity and ecological integrity is being maintained** by this project. There is no evidence that there is **improved valuation of environmental resources but rather the opposite will occur**. In fact, placing an unfiltered pollution stack and creating more traffic in and around parks significantly devalues these resources for the community.

(k) the adequacy of processes for accessing and responding to noise, vibration and other impacts on residents, during construction and operationally,

K.1 Noise Exceedances are extensive and difficult to understand

The **noise and vibration tables and charts** are extremely difficult to read with the need to correlate an area number across a number of tables and graphs. The exceedances table across the project demonstrates a very high level of impact over extended time frames. A recent job ad described the acoustic treatments needed as the "*largest architectural acoustic treatment program to-date on any major infrastructure project in NSW*"[128]. It is near impossible for people to calculate the actual impact on their home as each category of noise is split across several assessments ie) stages of the project, vibration etc For many home owners across a wide area around North Sydney, Cammeray, Crows Nest and Naremburn may be effected by cumulative impacts of various stages. Many homes and several schools were earmarked for noise attenuation who won't be aware that they qualify. The communication processes can come as quite a shock for those who didn't realise and further communication should be undertaken on a community wide level.

K.2 There will be a very high number of Substratum Acquisitions due to the highly residential route and property risks

Equally there is a very low level of awareness regarding the widespread need **for substratum acquisition.** With a predominantly residential route substratum acquisitions are likely to be needed by the 100's if not 1000's to cover the 50-metre area either side of the twin tunnels in densely populated areas. Additional information should be communicated across the community prior to individual notices to lessen the stress of this process on homeowners at a very difficult time for most. There are areas were vibration has been identified as an issue but perhaps more concerningly drawdown is a significant risk to parks (dewatering) and property (movement). We are seeing a high degree of mortgage/ financial stress across the area with Cammeray having one of the highest job keeper rates. He area the tunnels impact tend to be the areas service personnel, teachers and medical staff live in, workers who possibly have less disposable income than is perceived when people think of the North Shore. Many families are dual income due to the needs to pay high housing costs. The route follows areas who can least afford the uncertainty, stress and buyer reluctance that comes with uncompensated compulsory substratum acquisition.

K.3 The noise at local parks hasn't been considered which has a significant impact on amenity and use of space

Noise at local parks (a large number of which will be impacted) has been raised as a major issue but is not being satisfactorily addressed. Coaching and supervising children with high background levels may not only be difficult and limit the enjoyment of exercise but may present a safety risk. The area's parks are over saturated and there are no other options to move children to within a reasonable distance. Further consideration needs to be given to placing conditions over the project that reduce noise and their impacts during Friday and Saturday sport as a minimum. Overall, this is further reason why the alignment of this project is the wrong choice.

[128] https://www.linkedin.com/jobs/view/2634676542

(l) the impact of the project on nearby public sites, including Yurulbin Point and Dawn Fraser Baths, and Loss of sites and construction impacts

L.1 A large number of the few available green spaces will be used as construction sites over a long period of time

The Impact of public sites is wide ranging and will impact communities heavily during the 5-8 years of construction and ongoing with a net loss of green space. Public Areas either directly impacted or at risk include:

- Yurulbin Park/ Dawn Fraser Baths
- Berry's Bay
- The Coal Loader
- Waverton Park
- St Leonard's Park
- Cammeray Park; Cammeray Golf Course, Tennis Club, Skate Park and Sportsfield
- Anzac Park; incl. community garden
- Multiple smaller sites along the Warringah Freeway
- Bicentennial Reserve/ Flat Rock Gully Reserve/ Flat Rock Gully/ Creek/ Tunks Park
- Clive Park
- Middle Harbour/ The Spit water sports areas.
- Northbridge Baths
- Artarmon Park
- Balgowlah Golf Course
- Burnt Bridge Creek
- Wakehurst Parkway/ Manly Dam

For more information on the above sites please see the following the links to submissions.

These sites are packed with heritage holding the memories of the Cammeraygal (See Metropolitan Aboriginal Land Council Submission), early settlement, ship building, our early industries, quarries, settlements, and social infrastructure such as out first urban designed parks. Importantly they are the places our community have found respite in during COVID-19, they are the parks that play home to thousands of children on sports days, and they are important wildlife corridors and green spaces for our wildlife in densifying suburbs. The project will impact almost every green or open space along it's route between Rozelle and Balgowlah due it's complexity and high need for extensive support facilities.

L.2 There will be permanent loss of space and questionable return

Many of the spaces being used are Crown Lands however there is little transparency around their usage arrangements and conditions of return. In total 22.73 ha of space will be permanently lost across the project with some of the most significant losses occurring at Cammeray Park (includes Golf Course) and Balgowlah Golf Course. Other temporary spaces are at risk of high levels of contamination, poor remediation and dewatering and habitat loss. These issues are particularly concerning at Flat Rock Gully which will experience extreme levels of drawdown and a high likelihood of contamination migration.

L.3 Drawdown Across the route is a very considerable problem due to catchments and variable geology

An expert report was commissioned by the Department of Planning, Industry and Environment (DPIE) , post EIS which concluded the state's transport agency, TfNSW, did not use best practice, nor the most recent data to determine the project impacts on water systems. These include groundwater drawdown up to 16 metres across Seaforth and Balgowlah and 36 metres in Northbridge, drastically reducing water flows in natural

catchments and creeks, as well as the contamination of, or changes in, in multiple sensitive freshwater and marine environments.

Unlike other parts of Sydney's toll road network that were built through former industrial landscapes, the Beaches Link tunnel impacts large areas of protected bush, including Manly Dam, Burnt Bridge Creek and Flat Rock Gully and the waters of Middle Harbour, with flow on impacts on the rich biodiversity they support.

(m) any other related matter.

M.1 Why was Bradfield right?

Bradfield had a clear vision for Sydney[129] based on his assessments of future growth. He knew that we would run out of space and be choked with congestion if we relied on private vehicles - his plan was always centred on mass transportation and that included Mosman and the Northern Beaches. In fact, the Harbour Bridge itself lay at the heart of his mass transit system with 4 lines on the bridge itself. We now have the technical ability and the feasibility within reach to make his vision a reality without the land space issues that have put the project on the backburner for so many decades. We would do well to listen to his vision and advice:

"In attempting to solve the traffic problems of this growing city, the arts and sciences, pure and applied must be availed if to their fullest extent. Mathematics, Chemistry, Physics, Geology, Mechanics, Architecture, Metallurgy, Electricity, Geology, Economics, the Production and Properties of Materials, ***the temperament, characteristics and habits of the people, the political needs of the day, indeed nature in all her manifold aspects must be studied. The past history of the city must be known, present day conditions understood and the future visualised with imagination, origination and a sound practical judgment.***

The land area of Greater Sydney within a two-mile radius of Central Station is 7040 acres…..A city increasing in population is a prosperous city, and given facilities to travel, the number of journeys per head of population increases much more rapidly than the increase in population….In other countries where similar conditions have arisen, the solution, in recent years, ***has always been by means of rapid transit electric trains"****.*

The white lines show the proposed electric railways which have already been approved by Parliament, vis the City Railway, the Easter Suburbs Railway, the Western Suburbs Railway and the Sydney Harbour Bridge, with its connection always from Wynyard Square to Bay Road Station. A railway will extend from Athol **through Mosman, via the Bridge to the City, whilst Manly, Narrabeen and Pittwater will also be connected to the city via the Bridge**, and it will be seen at a glance how the Bridge and these Railways will open up the Northern Suburbs and give them direct Railway communication with the City and Southern Suburbs."

The white lines in the foreground of Bradfield's map show the intention for rail lines to run to Mosman and a separate line to the Northern Beaches via Frenches Forest. We now can achieve these lines with fast, efficient and sustainable underground mass transport solutions.

[129] https://ses.library.usyd.edu.au/handle/2123/11968

M.2 What do experts say we should be doing now?

A Federal Inquiry into "Transport Connectivity on Stimulating Development and Economic Activity"[130] in October 2016 found by and large that we need to stop servicing our car culture in our urban areas.

The World Health Organisation

Recognises that vehicle pollution is a pressing problem that planners need to address:

- Most sources of outdoor air pollution are well beyond the control of individuals and demands concerted action by local, national and regional level policy-makers working in sectors like **trans**port, energy, waste management, urban planning, and agriculture.
- There are many examples of successful **policies in transport, urban planning**, power generation and industry that **reduce air pollution**:
- for transport: shifting to clean modes of power generation; **prioritizing rapid urban transit, walking and cycling networks in cities as well as rail interurban freight and passenger travel;** shifting to cleaner heavy-duty diesel vehicles and low-emissions vehicles and fuels, including fuels with reduced sulfur content;

International consultancy firm, Arup stated that:

*"If cities and towns are well connected, they **allow people to leave cars at home and use public transport** to go to and between destinations. This in turn encourages walking and therefore can **stimulate activity in urban areas,** along corridors and around major nodes. There is a whole range of opportunities that well connected transport has on developments, from making cities more vibrant and bustling to encouraging exercise and community interaction"*

Associate Professor Matthew Burke:

*"Australia is going through a transition, and the old Australian road-based model of urban development is really no longer suited to our post-industrial economy. The rise of knowledge work in the cities is seeing **shifts in the geography of labour** and **demand growing for non-car transportation options, including public transport**"*

[130] https://www.aph.gov.au/Parliamentary_Business/Committees/House/ITC/TransportConnectivity/Report_1/section?id=committees%2Freportrep%2F024018%2F24070

Mr Brendan Nelson, President of PIA, believed that 'public transport needs to be a viable option, and it certainly needs to underpin any decisions in relation to land use planning'. He observed that 'changes in globalisation, the globalised economy, and the way people work should be considered',

"We will see a change in the way people work: their patterns of working in offices will change; people will work from home more often. We will see that particularly where our technology supports that existing capacity."

These comments were made pre-COVID-19. COVID-19 has accelerated this change toward a technology-based work force and decentralisation. It has also taught us how important our local green spaces and urban spaces really are. Our urban centres are important to the future of our economy. Neglecting them in favour of expressways neglects their potential. Adding more toll roads will ultimately make us more congested, more expensive, and less attractive. Now is not the time to drive backwards into our car centric past. We should be embracing the change that COVID-19 has accelerated, and that Climate Change demands. That means making some bold decisions, it means cancelling the $14 billion Western Harbour and Beaches Link Toll Road project. It's time to invest in a sustainable plan for the Northern Beaches. Public and active transport and flexible work models MUST be at the very heart of ALL future urban planning not an adjunct or afterthought as they are with this proposal. Sydney's environment, affordability, local amenity, and connectivity are all important factors in being an attractional city in the future. We have an opportunity to do this right, let's not waste it on this $14 billion toll road project.

M.3 Much could be done in regional areas with $14 billion+ as we recover from climate disasters and COVID-19, if this money is not invested in the regions it needs to demonstrate maximum benefit and have a strong business case

In the short term, projects with far higher priority have been identified by Infrastructure NSW and Australia[131]– many of those in regional NSW and the West. According to ABS data the areas being serviced by these tunnels are more advantaged than others. The bushfire affected regions on the South Coast, for example, are far more disadvantaged than the North Shore of Sydney and Beaches even pre-fire and recession[132]. Investment is needed now more than ever where it will reap the greatest public benefit, a poorly justified project with excessive cost blow outs will not be well tolerated by the public.

There is **no doubt that the Northern Beaches and North Shore need better transport solutions**. Choosing a public transport alternative not only makes better financial sense - investing in innovative new transport technologies locally could also boost the public transport manufacturing industry in our regions, create long term jobs and develop exportable products into the future.[133] By and large these toll road tunnels will be built by overseas firms and expertise which will not add to our knowledge base or local manufacturing base but rather provide short term, low-skilled jobs.

[131] https://www.infrastructureaustralia.gov.au/infrastructure-priority-list
[132] https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2033.0.55.001~2016~Main%20Features~IRSD%20Interactive%20Map~15
[133] https://www.theage.com.au/national/victoria/dear-politicians-be-less-tribal-and-ignore-vested-interests-20200930-p560l7.html

Note: The information provided in this submission is referenced to the Western Harbour and Beaches Link EIS documents unless otherwise stated. The conclusions made has been drawn on the information publicly available.

Key Recommendation:

That the Western Harbour and Beaches Link toll road tunnel projects proposed will have unreasonable and widespread impacts on Sydney's Harbour environments and largest school zone, do not have a demonstratable benefit and do not appear to meet the goals they set out to achieve. Considering these issues and COVID-19 accelerated changes to work, travel and population we urge the committee to recommend that the projects be cancelled in favour of sustainable solutions which better meet current and future need whilst vastly reducing the environmental and social impacts posed by the current project.

As a minimum the business case for the project should be re-costed and re-issued with the whole of project cost/benefits carefully considered before any further work proceeds. It is essential in the current environment that projects demonstrate the highest benefit and that Sydney Harbour, it's precious waterways, our heritage and generations of children are not put at risk for a project that simply does not add up.

Should the Public Works Committee need more information to conclude this finding we would recommend the following:

Term of Reference	Recommendation
(a) ***the adequacy of the business case for the project, including the cost benefits ratio***	**Find that:** The business case (based on known information) is inadequate **Recommend that the government provide the public with:** • the Business Case for all stages: Early Works, WF, WHT and BL • Provide validation of all travel time savings claimed • Clearly report on the Military Rd impacts i.e. report traffic modelling compared to today's congestion levels. Confirm the ceiling capacity of Military Rd and whether the 10% claims are made beyond the ceiling capacity therefore negating the improvements claimed. Provide a comparative rail-based solution for Military Rd for public consultation. • Expand the Operational Traffic Model to include all roads impacted and esp. Willoughby Rd, Full Span of Military Rd, Ben Boyd Rd, Eastern Valley Way, Berry St, Pacific Hwy, Brooke St, Inner West and Northern Beaches Roads • Include the extensive travel time/ local traffic dis-benefits in the BCR • Further consider the need for the project and how the SouthWest and Metro West (servicing similar corridors), approved Smart Motorway project and Mona Vale Rd Upgrade impacts the Business Case • Update the "Road Use Externalities" Cost based on updated traffic data ie) accounting for adjustments to local traffic projections, air pollution, emissions, noise etc • Consider the opportunity cost of investing in a toll road over and above a public transport solution along this narrow/ congested corridor locking the area into car reliance • Consider the environmental costs particularly to an area of high, world recognised environmental value i.e.) Sydney Harbour, Middle Harbour and Northern Beaches • Consider the costs of relying on overseas contacts and the opportunity cost of not investing in local public transport manufacturing and other local businesses • Consider the cost associated with two-way tolling of all Harbour Crossings and the likelihood of further toll avoidance across the network
(b) the adequacy of the consideration of alternative options	**Find that:** • The consideration of alternatives is inadequate and insufficiently detailed to allow for a comparative analysis across all cost/benefits **Recommend that:** • a detailed options analysis be completed which benchmarks key aspects against an alternative public transport/ alternative ie) travel time, sustainability, waste, environmental impacts, air quality, VKT's, congestion and emissions etc • the detailed alternatives analysis be reviewed independently in line with the Investor Assurance Framework • Correct the projects assumptions about the viability of rail-based solution to the Northern Beaches given the evidence to the contrary • Consider a multi-modal package of solutions as an alternative to the toll road tunnel including the Smart Motorway project already approved for the corridor • Correct the assumption that the Northern Beaches have been waiting for a road-based solution – they have been waiting for a viable solution. • Acknowledge evidence that Sydney has embraced public and active transport as the preferred transport model for the future

	• Scope a multi-modal alternative that includes a mix of a rail-based solution for Chatswood to Dee Why/Mona Vale, a (light?) rail-based solution for Military Rd, Work from Home hubs, incentives for businesses to de-centralise to urban hubs, connected/ safe active transport Northern Beaches to City, De-centralised freight models, and poss. extending rail freight.
(c) the cost of the project, including the reasons for overruns	**Find that:** The project scoping and assessment to date does not enable an adequate costing to be completed and puts the project at risk **Recommend that:** • A phase 2 contamination study be undertaken including all areas identified as being a moderate to high risk • Flat Rock Gully not be used as the primary dive site due to an unreasonable level of risk • The route be re-considered to avoid areas of heritage, historic ground issues/ subsidence and reduce the impact on residential areas • Aboriginal Heritage be re-assessed by a local company in light of the impacts identified across the EIS. The project should be re-routed to avoid Highly Significant sites • Consideration be given to the additional costs associated with the project contracts being awarded to overseas organisations during a pandemic and beyond
(d) the consideration of the governance and structure of the project including the use of a 'development partner' model	**Find that:** The governance structure and funding of the project is inadequate and unclear **Recommend that:** • The Auditor-General audit all expenditure to date, compliance with funding criteria and gateway processes • Examine the conflict-of-interest issues reported to date within the project structure and ensure no conflicts of interest exist going forward • The relationship between Western Harbour Tunnel and WestConnex be examined in detail to establish the viability of WestConnex to operate independent of Western Harbour Tunnel • Provide evidence that the appropriate assurance and probity steps have been taken prior to the release of any further funding or agreements • Demonstrate how the project meets the "Principles of Sound Financial Management" particularly in relation to principles of highest benefit, effective financial and asset management, and intergenerational equity. • the validity of using the sale proceeds from the remaining portion of WestConnex to fund the project be re-examined. Particularly if that sale is to go to an owner who stands to benefit directly from the contribution of the project to WestConnex.
(e)the extent to which the project is meeting the original goals of the project,	**Find:** The project does not sufficiently address the goals it set out to achieve **Recommend:** • Alternatives are assessed and a comparative analysis published which demonstrates how the project and it's alternative addresses each of the goals of the project • That the achievement of goals is presented clearly in relation to today's level of congestion as well as a projected future level of congestion. Traffic growth assumptions should be made public.
(f) the consultation methods and effectiveness, both with affected communities and stakeholders,	**Find:** • That consultation methods demonstrated many deficiencies and impacted communities have not been given fair access to consultation. Consultation was weighted toward less impacted communities. • COVID-19 has considerably restricted effective consultation

	• Consultation has not been effective as the majority of significant issues raised by the community throughout have not been addressed • Consultation has not been effective because Conditions of Approval have not been carried forward to Environmental Plans **Recommend:** • Alternatives be assessed with full re-consultation. This consultation should only be undertaken once COVID-19 restrictions allow face to face contact and equitable access to documents • Environmental Plans should comply with Conditions of Approval without exception particularly in relation to Contamination and Aboriginal Heritage • That key decision makers meet with the community to review the key concerns and suggestions • That school P&C's are considered key stakeholders given the scale of impacts to children
(g) the extent to which changes in population growth, work and travel patterns due to the Covid-19 pandemic have impacted on the original cost benefit ratio, ***(h) whether the NSW Government should publish the base-case financial model and benefit cost ratio for the for the project and its component parts,***	**Find:** • Based on the latest government population projections, reported trends, city occupation rates and the fact the areas served by the project are highly sensitive to changed work and travel conditions the BCR will be highly impacted **Recommend:** • That the BCR be re-calculated incorporating COVID-19 impacts known to date • The Base-case and BCR should be released to the public to ensure appropriate levels of transparency and accountability
(i) whether the project is subject to the appropriate levels of transparency and accountability that would be expected of a project delivered by a public sector body	**Find:** • The project has not been conducted with the appropriate levels of transparency and accountability **Recommend:** • All contracts be made public • The use of crown lands across the project and their conditions of use/return be published • All agreements regarding the project be made public or as a minimum be made available to the NSW Upper House and the Auditor-General • Confidentiality agreement with councils and private organisations/ home-owners not be a feature of future stages of the project • That visual's relating to the project are re-issued to the public with realistic proportions especially in relation to ventilation stacks
(j) the impact on the environment, including marine ecosystems,	**Find:** • That the environmental impacts of the project are excessive and unreasonable • That the risks to the environment and costs to mitigate appear to outweigh the benefits of the project • That the project will result in a significant devaluing in environmental resources and is inequitable for future generations who will experience a loss of green space, ongoing environmental impacts, and toll contracts. • That the project is not the most sustainable option and leads to an increase in emissions and car reliance overall. **Recommend:**

	• That project alternatives be assessed and compared across all environmental criteria • That the costs to mitigate contamination risks at Sydney Harbour, Flat Rock Gully and Middle Harbour are fully known before any contracts are signed particularly the procedures and cost to handle and safely dispose of PFAS material is known. • That contamination testing be completed and published PRIOR TO CONSTRUCTION at all sites identified as being a moderate or high risk • That the project be re-designed to substantially reduce the excessive loss of trees • That the Diesel impact of 10,000+ construction vehicles per day be re-assessed and mitigation measures be mandated • That the Silica Risks to workers and children in proximity be re-assessed in consultation with workers and school representatives • That real time alert style air quality monitors be issued to all local parks and schools impacted • That the air quality and health assessment be re-issued based on the Operation Traffic Analysis across a wider area • That the health risk assessment considers the risk to receivers and planning limitations for high rise buildings up to 1.2km's from stacks with reference to the NorthConnex Local Air Quality Assessment Process Report • That the planning restrictions and the economic impact be known and factored into the BCR • That an air quality/ health assessment be completed for each school within 1.2km's of the ventilation stacks which takes into account the schools relative height from the stack and number of students • That the sustainability and climate impact be re-considered and compared to an alternative option • That all comments from the Independent Reviewer, Chief Scientist and Chief Health Officer be addressed in a re-issued air quality assessment and health impact assessment • That the CHO be asked to review the "whole of project" health impacts not only stack impacts after all inputs are added • That a standard template be developed for the reporting of air quality and health impacts related to road projects which addresses these issues and also ensures that whole of project impacts are always considered in each metric, that air quality and health impacts are easily understood per area and that sets the goal that road projects in urban areas needs to demonstrate **an improvement in overall air quality not a benefit to one area at the expense of another.** Should the total impact of an urban road project not be able to clearly demonstrate an improvement in air quality, objectively confirmed, the project should be rejected.
(k) the adequacy of processes for accessing and responding to noise, vibration and other impacts on residents, during construction and operationally	**Find:** • The impact of noise, vibration and substratum is not clear to the community due to the complexity of documents • The noise impacts are very high across the project • There is a large number of construction sites needed which are located in proximity to dozens of schools, pre-schools and parks • The extent of substratum acquisition needed has not been adequately communicated as part of the consultation process and that this may create widespread financial hardship compounding financial pressures created by COVID-19 **Recommend:** • Simplify the noise, vibration and substratum information so that the community can better understand the cumulative impacts in each area

	• Re-consider the project and/or route due to the unreasonable impacts to sensitive receivers • Limit noisy activities near schools and parks and consider restrictions during Friday and Saturday sport times • Publish substratum acquisition maps immediately to affected areas
(l) the impact of the project on nearby public sites, including Yurulbin Point and Dawn Fraser Baths, and Loss of sites and construction impacts	**Find:** • The project has significant impacts on many public sites • The proposed Flat Rock Gully dive site sits in a large catchment area on a legacy landfill site in a residential and key recreational area. Contamination risks have not been adequately assisted **Recommend:** • That the project be re-designed to reduce the impact on a large number of sites ie consider bored tunnels to reduce impacts on Middle Harbour, Clive Park, Yurulbin Point, Sydney Harbour • Consider alternative options which would need fewer construction support sites in dense urban areas • Reduce the risks re: Flat Rock by cancelling the project. If this does not occur consider staging the project to have all spoil removed underground straight to the Gore Hill Freeway and Warringah Freeway (trucks will already emerge onto these routes) removing the above ground impacts, reducing contamination risks and eliminating the need for an interim dive site.
(m) any other related matter.	**Find:** • The transition to EV's will not materially change the pollution profile within ten years of the project opening and urban pollution may continue to increase due to vehicle retention and growing diesel uptake in an area already over criteria • Given the need for investment in our regions following drought, fire and COVID-19 an investment of $14 billion + in a doubtful project in a relatively wealthy area of Sydney, needs more rigorous justification and scrutiny • The original plan for Sydney was to have rail to the Northern Beaches to move population with the least impact and greatest efficiency. These plans should be re-visited and modern rail-based solutions explored. Contrary to the projects claims a rail based solution is feasible according to multiple government reports and independent engineers. • Worldwide it is increasingly recognised that urban planning needs to de-prioritise car-based infrastructure and that radial highways create increased congestion and pollution. This project does not represent world's best practice.

Links:

Appendix A – Air Quality Paper; an assessment of the air quality and health implications of the Western Harbour and Beaches Link Tunnels :

https://drive.google.com/file/d/1iobweG_IqU2d-pwgqO7KnKcklucg6n2Q/view?usp=sharing

Appendix B – 2009 Metro Corridor Assessment confidential:

Appendix C - Air Quality Implications Associated with High Rise Buildings in Vicinity of Stacks:

https://drive.google.com/file/d/1uBw9sALOqsuPiauWVh-8iy-r637aXQe8/view?usp=sharing

Appendix D - Independent Reviews of Ground Water Implications of Beaches Link:

https://drive.google.com/file/d/1W_Xy-R48ARLCn9L8EnB4z9x9XgDYj44P/view?usp=sharing

Appendix E - Silica Risks to Workers and Children

https://drive.google.com/file/d/1bIrkzgEPm7FDG-eDWEnDIHxX8XRdhm6M/view?usp=sharing

Below: Why Flat Rock Gully Should not be used as a Dive Site

Appendix F - EPA Notification re: Contamination in Flat Rock Gully below

Appendix G - Preferred Infrastructure Request; Beaches Link Tunnel below

Appendix H - Interview with Nathan Moran, CEO of the Metropolitan Local Aboriginal Lands Office below

Appendix I - Excerpt from "The Naremburn Story" by Eric Wilsch re the landfill site at Flat Rock Gully

Appendix J - Henry Lawson Poem

Appendix K - Hallstrom Factory Contamination of Flat Rock

Appendix L - Correspondence regarding school route and Brook St/ Flat Rock Drive Usage as haul route

Appendix M - National Heritage List Application

Below: Cammeray Park Related

Appendix N - Story regarding Cammeray Contamination Complaint

Appendix P - Complaint from Cammeray Public School P&C regarding early works

Appendix F

WILLOUGHBY CITY COUNCIL
City of Diversity

PLANNING & INFRASTRUCTURE
Compliance Unit

22 February 2021

Contaminated Land Management
Environment Protection Authority
Locked Bag 5022
PARRAMATTA NSW 2124

Dear Sir/Madam

RE: Notification under Section 60 of the Contaminated Land Management Act 1997

Please find attached a notification under section 60 of the Contaminated Land Management Act 1997 relating to potential contamination arising from a former landfill waste and incinerator site previously operated by Council on the current site of the Willoughby Leisure Centre and in the vicinity of Bicentennial Reserve and Flat Rock Gully.

Council has become aware of the potential contamination through the release of the Transport for NSW Beaches Link and Gore Hill Freeway EIS - Appendix N Groundwater (attached) and notes the indications in the EIS that mitigation measures are being considered to address potential contamination in the context of that infrastructure proposal.

Council officers are available to discuss this matter further if required. In this regard, please contact Council's Environmental Health Officer, , in the first instance by phone on , or by email on

Yours sincerely

Manager
Compliance Unit

Willoughby City Council
31 Victor Street
Chatswood NSW 2067

PO BOX 57 Chatswood NSW 2057
www.willoughby.nsw.gov.au

Phone 02 9777 1000
Email: email@willoughby.nsw.gov.au
ABN 47 974 826 099

Appendix G:

Planning, Industry & Environment

Our ref: SSI-8862

Program Director
Western Harbour Tunnel and Beaches Link
Transport for NSW
101 Miller Street
North Sydney 2060

14 May 2021

Beaches Link and Gore Hill Freeway Connection – Preferred Infrastructure Report

The exhibition of the Environmental Impact Statement (EIS) for the above project ended on 1 March 2021. The Department has reviewed the EIS and submissions received and has sought independent expert air quality, traffic, water and hydrology advice.

The Department requires further assessment and, in accordance with Section 5.17(6)(b) of the *Environmental Planning and Assessment Act 1979*, the preparation of a Preferred Infrastructure Report (PIR), in addition to a Response to Submissions Report, that further:

a) assesses alternative locations, social and environmental impacts of the proposed construction ancillary facility located at Flat Rock Drive (BL2) and assesses the construction impacts to recreational users of Spit West Reserve (BL9)
b) assesses the impacts to Middle Harbour from the introduction of a sill (due to the placement of immersed tube tunnels) including appropriate measurements/monitoring data and impact assessment
c) assesses the treatment and handling of contaminated material and any temporary onshore transfer/handling sites associated with the proposed dredging of Middle Harbour
d) identifies local road intersections impacted by traffic changes as a result of the operation of the project. Consideration and assessment of the impact of those changes and identification of measures to mitigate the impacts is also required.

The Department also reminds TfNSW that the Department's assessment timeframes do not include the seeking of further information, re-exhibition (if required) and condition negotiation. It is the proponent's responsibility to accommodate these actions in its own timeframes and to ensure that requested documentation is of a standard to allow the Department to complete its assessment.

Should you have any inquiries regarding these matters, please contact

Yours sincerely,

Executive Director Infrastructure Assessments
Planning and Assessment

As delegate of the Planning Secreta

Appendix H:

NAREMBURN

Naremburn Matters

YOUR COMMUNITY VOICE

September 2021 Volume 18 No.3
Circulation 3,000

GAMMERAYGAL CLOSE TO HOME

At the August NPA General Meeting our guest speaker was Nathan Moran CEO Metropolitan Local Aboriginal Land Council who spoke on the topic of 'The Gammeraygal' with a special focus on Naremburn and its surrounds.

Nathan Moran, CEO Metropolitan Local Aboriginal Land Council since June 2014.

Nathan is a proud Biripai Dhungutti Goori who has formerly worked in both government and non government with and for Aboriginal communities of NSW for over 25 years.

Here is a summary of what we learned:

How do you say/spell Gammeraygal correctly?

G rather than C eg Gamm er aygal (or igal)- it is the pronunciation that is most important.

What were the Gammeraygal like and where did they live?

They covered approximately what is now known as Balmoral, Spit Junction to Chatswood including Naremburn. They were known to be a very large group - strong warriors, ceremonial leaders and skilled fisher people. Some well-known Gammeraygal you may have heard of include Barangaroo and Mosquito.

When and where were the Gammeraygal last known to live on the North Shore, why are there no known descendants?

Colonial records prior to 1814 attest to the North Shore not being occupied by anyone other than the Gammeraygal. Colonial records from 1814-1880 demonstrate an ongoing presence during what was a gradual first settlement on this side of the Harbour. The Protection Act for Aboriginal people (the first formal Act or legislation for Aboriginal people) was not established until 1883 when formal records began. Around this time there are references to encampments at Balls Head (1878) and to Flat Rock Gully site known as Struggle Town (1870s to at least 1887) which may have been a place of refuge. Sadly, the MLALC has not had one person of Gammeraygal descent who can speak to impacts post 1788 on 1st peoples of Sydney, aka Eora. Newspaper reports indicate people may have been moved to missions or outer suburbs, but we also know that a great number of people succumbed to illness.

What do we know about their land and traditional sites today? Was Flat Rock Gully and Clive Park important?

The areas known as Flat Rock Gully and Clive Park are highly important in terms of Aboriginal Cultural Heritage. Particularly, as both contain Aboriginal cultural heritage that has all but been removed in over 90% of surrounding areas. There are several significant sites in these locations, a potential archaeological deposit (PADs) and a high likelihood of undiscovered sites.

Early local European histories reported that Flat Rock Creek was known as "Mugga" by the Gammeraygal which was understood to mean diamond snake – is this accurate?

Malya is the word for Diamond Python Snake in Gadigal sourced from what is now called Sydney Language (Dharug or Dharawal). It may be the same word or a Gammeraygal word for which we don't yet have records.

The EIS documents identify 20 sites that may be impacted by the Western Harbour and Beaches Link Tunnels, some are classed as highly significant? What are your concerns about this and other developments?

MLALC is concerned about impacts of all development on the North Shore, be it the Western Harbour and Beaches Link Tunnels or other. All development, MLALC believes, must and should be done with the starting premises to value, preserve and protect Aboriginal Culture heritage as the oldest living human culture of earth when undertaking works and or projects. MLALC believes that technology and resources which allow us to avoid and or minimise impacts of development on Aboriginal Culture Heritage and ecology is in the best interests of all.

INSIDE THIS ISSUE

Aboriginal boomerangs and figures in a Flat Rock Gully cave

Appendix I : Excerpt from "The Naremburn Story" regarding the historic tip at Flat Rock Gully, the proposed major dive site for the Beaches Link Project

https://drive.google.com/file/d/1AWph5GtswwXueBe2V7UM9zahR4PplRG8/view?usp=sharing

THE GULLY IS RAVISHED

Tipping and burning of rubbish and refuse was already taking place in Kent's Paddock by the owner long before the land was acquired for the incinerator, and Council received many complaints of the annoyance caused by the fires burning the refuse. Most of the complaints came from the Naremburn Progress Association on behalf of the suffering residents. Adjoining Progress - Associations even requested the Naremburn Progress Association to complain for them.

It was envisaged that the new incinerator would cope with everything that was flammable, leaving only a mere fraction of the original material as readily disposable cinders. However, rapidly changing lifestyles soon had the incinerator obsolete. Packaging of merchandise and food items changed from almost entirely flammable material to a greater content of metal and glass: the incinerator and conveyor system were not able to cope with the high content o f solid materials in the refuse to be burnt. Grates and moving sections became choked and much of the refuse had to be tipped and burnt in the open. Where better to tip than the convenient gully and creek close at hand? And the amount of refuse continued to grow, so wherever possible it was burnt. Then another era came, when less and less materials were reused (later known as recycling). **Industrial waste became another component, as did motor vehicle tyres. All these problems were easily overcome: bum whatever can be set alight. Objectionable odours from factory waste were another pollutant, especially when in contact with fire.**

Thus began the disaster era for nearby (and not so near) residents. **Black tar and soot laden smoke billowed regularly from the tip. Painted house surfaces suffered and became streaked**. Furnishings and fabrics were affected; washing days had to be planned according to the direction of the wind. Vile smelling fumes from burning putrefied refuse and the acrid fumes from the chemical waste added to the unpleasantries to which the residents were subjected. Council regularly received complaints from the Naremburn Progress Association. The complaints were received but, probably because the means of refuse disposal was an attractive low-cost exercise, the objectionable activities continued. **The Association was even advised that fires had to be maintained** as they were required to burn quarantined timber, etc., for the Quarantine Department. Someone's face must have been red when Council was informed that such advice was completely in error because one of the members of the Progress Association was the Quarantine Officer who directed such procedures. The tip had never been authorised or registered for such destructions, and never would be considered appropriate for such purpose by the Quarantine Department.

The years rolled on, with nights often disturbed by the roar and clatter of sheets of iron, metal and the like on the tip face collapsing and sliding down into the gully as fires below burnt away supporting materials. Council came to the realisation that this situation was getting out of hand and just could not continue. A huge covered concrete drain was constructed down the gully to take the creek water, and the gully began systematically to be filled in. No more fires . . . and all rubbish was covered with soil, back filled. Naremburn Progress Association had finally won the day. Some burning did continue but such fires were always 'started by someone else'. The last bush fire, which destroyed a large portion of the bushland on the north side, was started by one of these mystery fires; burning papers were blown into the bush in the late afternoon of a hot windy day, even though the tip was under supervision and surrounded by a security chain wire fence, with gates locked when left unattended. This was when the tip had extended to the eastern side of Flat Rock Drive.

This method of tipping laid the foundations for the ultimately unstable surfaces of playing fields. Strange as it may seem, it was Mr Burley Griffin who first supported a proposal for destruction of bushland to convert the gully to playing fields. On 6 February 1928, a deputation was received by Council to address it on a massive scheme for the resumption of foreshores of Middle Harbour, and for acquisition of land to be converted into playing areas for children, involving extensive destruction of bushland. Mr Burley Griffin was one of the main speakers in the presentation of the far-reaching scheme. Another proposal by the deputation was for the resumption of the valley of Flat Rock Creek, Narembum as a playing area. It would result in an area of about 15 acres and would become a valuable asset of Council. This was at the time when it had been decided to erect an incinerator and sewerage disposal unit in bushland at the end of Market

Street. The scheme espoused by Mr Griffin advocated the destruction of the finest portion of the bushland of Flat Rock Gully, **an area fortunately still conserved for posterity,** although a portion was lost to Flat Rock Drive as well as by Council's tipping activities. The Griffin recommended project was also to utilise the refuse of the incinerator and sewerage disposal scheme. Fortunately, because that disposal project had to be abandoned, Griffin's proposal was treated likewise. Of course, subsequently Council desecrated the bushland of the gully in an even worse manner, west of the contemptible Griffin-motivated proposition.

The sorry saga continues: After the bisection of the gully in 1968 by the extension of Brook Street which was named Flat Rock Drive, **tipping continued east of this road 'to compensate for the lost space taken by the Drive'**, despite pleas to save the remainder of the gully. Although this was to continue for a few years only, the civic fathers felt the urge to press on with tipping down the gully to about West Street. This would in effect annihilate the gully's bushland character. The appearance of survey pegs and paint markings on rocks was the cue for the Progress Association to investigate the situation. Assurances had been given that tipping on the east side would commence in 1969 and be concluded by 1972. **As the tipping and filling spread relentlessly eastward, no concern was evident regarding the appropriate dispersal of surface water from surrounding streets which spilled across the reclaimed area and quickly soaked into the filling.**

The result was catastrophic. Because of this water, putrescible material which had been tipped and poorly covered, resulted in a vile stench throughout the neighbourhood. Water soaking into the **tipped material also produced an objectionable leachate to ooze into the creek and bushland, further polluting the waterway**. Action of water on the tipped material below generated subterranean heat which in turn generated a vile smelling steam. This blew up through the loose rocks at the side of Flat Rock Drive. It was an eerie sight at night in headlight beams as these plumes of steam appeared like geysers.

And then the mystery of the tip pollution along the eastern face and the stench-ridden exudation was solved. With obvious satisfaction the Mayor of that time was able to announce it was caused by ponding. Council's engineer had deduced that the culprit was Flat Rock Drive which held back the soaked-in surface water west of this road, and when this water broke through under the road it caused the problem. Local observers knew otherwise. Narembum Progress Association, supported by Northbridge Progress Association observers, stated that a considerable volume of surface **water from Narembum streets regularly spilled over the surface of the eastern tip, scouring it and gaining access to the great amounts of buried putrescible material**, and then exuding as the vile smelling leachate. This water was completely uncontrolled when it reached the tip.

The Maritime Services Board and the Department of Health regarded the **oozing leachate as a pollutant and health hazard as it attracted massive numbers of flies and other vermin, was of obnoxious character and had a lethal effect on adjacent bush. Neutralising chemicals were spread across the face and bank of the tip**; a system of hose drip outlets from a central reservoir further reduced the unpleasant situation. The Department of Health closed the tip for general use and placed strict conditions on Council tipping procedures. A subsurface lineal drain was also constructed to direct the surface water to a southern outlet. This drain reduced the problem considerably and the villainous, and probably nebulous, ponding amazingly disappeared. **Local residents knew only too well what had been buried**. Olfactory perception ensured a constant awareness. Seepage and surface water from a northern surface drain continued unchecked to maintain an offensive presence.

The major result of this 'misdemeanor' was that tipping down the gully had to cease. Despite assurances to observe the direction, **tipping did continue, mainly to increase the height of the filled area, until 1985**. The area became a repository for concrete pipes, heaps of gravel and cinders, piles of broken bitumen and concrete awaiting recycling. **Piles of hospital cinders at one time created a further pollutant;** on windy days ash was blown down the gully, entering houses and giving the appearance of billowing smoke from a bush fire. This was the welcoming scene for the public entering the municipality at its southern gateway.

Land values depressed: For nearly half a century, the continuing reception and treatment of the municipality's garbage, pan nightsoil and general rubbish and refuse in the incinerator and Flat Rock Gully, had a serious and depressing effect on land values nearby. As late as 1975 when plans were prepared for the 'Castle Vale' residential development on the Hallstrom factory site, a professional report to Council on that land stated: 'The area has been one of the poorest in Willoughby, being next to the Tip . . . ' * The general area of tip activities was always referred to as 'at Narembum', probably as Narembum residents were the section of the community most inconvenienced and the source of most complaints. The entire gully at times was a dense smoke haze, even extending to St Leonards. When the area gained respectability by the development of The Incinerator Restaurant it became 'at Willoughby'.

From Mirvac Pty Ltd. Application for suspension o f existing zoning.

Report by E. A. Shead Pty Ltd and R. T. Forsyth Pty Ltd.

'Solution for pollution':

This is the title of an early Warner Bros 45 rpm record by Charles Wright. It is a question that Wright poses: he is surrounded by pollution and it concerns him for future generations. He also recognises the financial cost. In Narembum we have pollution that has so often and for so long offended in Flat Rock Creek.

In early times the stream was one of clear water that drained the area west of Willoughby Road, popular haunts for cranes, water hens and other water fowl, water rats, tortoises, water dragons and so on. Two Streams met at Flat Rock Bridge, one from Artarmon, the other commencing close by St Leonards Station. Both have become convenient disposal units. Most of the coarse materials appear to predominate in the one from Artarmon. Liquefied pollutants appear to originate mainly from the other tributary. During the early post-war years there were regular complaints to Council from the Progress Association regarding **liquid waste entering this drain** from what was referred to as The Prune Factory. Stagnating, this effluent became particularly objectionable. There appeared to be oils and greases improperly disposed of, and at times a heavy grey slurry entered that creek. **Vile smelling chemical types were also regularly present.**

Because of the commercial building developments near the source of this creek in the vicinity of the railway station, the stream appears to run Its commencing course under some of the buildings, hence it is difficult to trace the source of pollutants and to ascertain whether the problem is a deliberate act. The lower reaches of the main creek bear mute but offensive testimony to an inconsiderate section of the community upstream. Of course leachate originating from the tip contributed to the pollution of the creek but this was gradually reduced as tipping of source material ceased.

Besides the oily rocks and gravel, ugly sludge in the pools and a general smell of chemicals 'gone wrong', one sees every kind of refuse imaginable. Supermarket bags are strung everywhere, containers of all types, tree loppings, garden refuse, furniture and furnishings, plastic sheeting, building refuse, metal items — name it and it is there. Motor cycles, toys, supermarket trollies, even a motor car adorn the waterway; all ultimately finds its repose in Long Bay, after a final journey under Tunks Park. And to think that the series o f clear, beautiful and enticing pools were once the pride and joy of children who regularly swam and played there.

Until a few years ago, after a good flushing from a flash flood, tiny fish were observed a few hundred metres upstream from the Suspension Bridge, having negotiated shallow rapids, to perish in a day or so from a heavily polluted surge. But not today: pollution is constant. As is obvious, there appears no easy solution for pollution.

THE NEW PLAYING FIELDS

As tipping progressed at Flat Rock and reclaimed areas were regarded as consolidated, playing fields were developed. However, the settling process continued, and as a result of this, depressions formed which became shallow lakes in wet weather so that large numbers of swamp frequenting birds migrated to the area; there was a recommendation to develop the site as a wetlands project. This situation caused surprised and deep concern to the municipal leaders but not to the **local residents who, over the years, had witnessed the nature of materials which had been dumped without effective compaction.**

Then, in 1983, the Willoughby Bicentennial Community Committee was formed to plan the Municipality's bicentennial activities. Many sub-committees were formed, comprising dedicated residents and others, for the number of projects to be undertaken. One of these was the Environmental Projects Sub-committee which comprised:

Messrs Peter Murray (convenor). Bill Mitchell, Jack Wiesner, Eric Wilsch, Mrs A. Kabos, Aid. Betty Fowler (Council's representative) and Messrs Peter Wicking (secretary) (Council staff) and Rob Parsonson (Council staff). Messrs. Murray and Wilksch were Narembum residents with intimate knowledge o f the area, and Vice-President and President respectively of Narembum Progress Association. The committee met frequently to discuss various proposals which included a lineal park system of walkways and cycle ways from Artarmon to Long Bay, incorporating a grand modem sports complex on the reclaimed Flat Rock tip site. After evaluating applicants for commissioning as Planning Consultants,

the committee's recommendation was in favour of Forsite Landscape Architects and Planners Pty Ltd. Many constructive meetings were held with the company's representative consultant who was able to evaluate and appreciate the concerns of the committee for the development as well as for the environmental considerations such as bushland preservation to be observed in planning. The successive plans for a very difficult development area were presented progressively for appraisal to the interested and concerned public. These exhibitions were organised by the committee on site and elsewhere.

Everything began to look rosy for the ultimate exciting sporting complex. It was to be funded to a great extent from tipping fees for the massive amount of clean fill required for landscaping to cater for a wide spectrum of organised sporting activities. The reclaimed area east of Flat Rock Drive was to be developed only for passive recreation activities.

And then, to the amazement and disbelief of the resident component, Council decided that there was no longer any need to recognise any further input from the committee. Also, the planning consultant from the commissioned company terminated his employment and a replacement was appointed. From then on, the consultant dealt only with Council staff. A major planning variation involved considerable bushland destruction to accommodate car parking facilities. With no committee guidance, the effects of the new consultant's plans were not immediately recognised. Council was unintentionally led to believe by its staff that no destruction of bushland was involved and passed the amended plans. Action by an observant and very concerned member of the committee, aided by an Alderman of the Ward whom he informed next day, resulted in a Council on-site inspection. A professional Bushland Management Consultant fully supported the committee member's concern and his assessment of value of the affected bushland. **A particularly interesting part of the dwindling bush was thus saved.**

The overall development is seen to assure an exciting result. After much deliberation. Council has officially named the area: 'Bicentennial Reserve, Willoughby'. It is hoped that the small playing field named Hallstrom Park after its benefactor. Sir Edward Hallstrom, will retain its identification within the new development on that site.

An Entertainment Spectacular at the Reserve, commencing with a procession of floats, groups and vintage cars, was planned for the opening of the first stage on 30 April 1988. During the preceding three days Sydney experienced deluges of rain unequalled in recent years. The programme had to be cancelled. The opening ceremony, conducted by The Mayor, Aid. Noel Reidy, in the Incinerator Restaurant in the presence of community leaders and those directly connected with the Reserve development, was carried out by the Hon. Peter Collins, M.P., local Member and nearby resident. The planned entertainment was presented in the Westfield Centre, Chatswood. Heavy rain continued throughout the day of the opening.

The rest of the planned linear park of passive recreation areas, cycle ways and walkways is eargerly awaited. A bushwalk already exists but requires further developing. When established, the entire development will be a magnificent attraction at the Municipality's southern gateway.

Community activities

WILKSCH'S WALK

This a very scenic bush walk on our doorstep, with tall trees, ferns, mossy covered rocks, Flat Rock Creek crossings and the sounds of whip birds, plus a finishing line of a historic sandstone suspension bridge soaring above you at Tunks Park. (It is a 4km round trip with the track graded as easy to medium - some steep and slippery sections). There is evidence of early European settlement (the ruins of a 1860s sandstone house and garden owned by a pig farmer called Mr 'Fatty' Dawson) and while standing in the bush, it is easy to imagine the Gammeraygal people hunting and living in this area thousands of years ago.

Wilksch's Walk can easily be accessed from the end of Small Street, past the Willoughby Leisure Centre. Details of the walk, including a map can be found at: https://www.willoughby.nsw.gov.au/Environment/Bushland-and-Wildlife/Bushwalking-Tracks/Tracks/Flat-Rock-Gully-Walking-Track

Aside from being a lovely bush walk, Wilksch's Walk shows it is worth remembering what can be achieved by residents. Eric Wilksch, a resident of Naremburn, and the longest standing President of the Naremburn Progress Association was instrumental in the preservation and development of Flat Rock Gully. Without him and his supporters, we could have been looking instead at an old tip and soil fill area instead of the beautiful well-planned bush track we have today.

KERRY-ANN AITKEN
NAREMBURN RESIDENT

Above Crow's Nest (Sydney)

Henry Lawson, 1906

A blanket low and leaden,
Though rent across the west,
Whose darkness seems to deaden
The brightest and the best;
A sunset white and staring
On cloud-wrecks far away —
And haggard house-walls glaring
A farewell to the day.

A light on tower and steeple,
Where sun no longer shines —
My people, Oh my people!
Rise up and read the signs!
Low looms the nearer high-line
(No sign of star or moon),
The horseman on the skyline
Rode hard this afternoon!

(Is he — and who shall know it? —
The spectre of a scout?
The spirit of a poet,
Whose truths were met with doubt?
Who sought and who succeeded
In marking danger's track —
Whose warnings were unheeded
Till all the sky was black?)

It is a shameful story
For our young, generous home —
Without the rise and glory
We'd go as Greece and Rome.

Without the sacrifices
That make a nation's name,
The elder nation's vices
And luxuries we claim.

Grown vain without a conquest,
And sure without a fort,
And maddened in the one quest
For pleasure or for sport.
Self-blinded to our starkness
We'd fling the time away
To fight, half-armed, in darkness
Who should be armed to-day.

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.

Night's sullen spirit rouses,
The darkening gables lour
From ugly four-roomed houses
Verandah'd windows glower;
The last long day-stare dies on
The scrub-ridged western side,
And round the near horizon
The spectral horsemen ride.

The Bulletin, 25 October 1906

Appendix K: Halstrom Factory Contamination

WILLOUGHBY SOUTH
PROGRESS ASSOCIATION

THE 272

Journal of Willoughby South Progress Association (WSPA)

JULY 2021 ISSUE 57 CIRCULATION 2,500

The Fridge Entrepreneur who Devastated Flat Rock Creek

In late May 1934, a new neighbour had established an important business near the Willoughby Incinerator. Edward John Lees Hallstrom was a local Australian industrialist and philanthropist, whose factory here in Willoughby South helped found Taronga Zoo.

Hallstrom was an avid industrialist and, whilst working in his Dee Why workshop in 1923, developed a refrigerator powered by kerosene. By 1934, Hallstrom had arranged the purchase of a former private bus service near the Willoughby Incinerator. In May 1934, the factory opened, producing kerosene, gas and electric refrigerators under the name Silent Knight.

The opening of the factory was fortuitous. With Sydney finally recovering from the Great Depression, demand was high for domestic goods: washing machines, vacuum cleaners and, of course, Silent Knight refrigerators. During the Second World War, Hallstrom secured a contract with the US and Australian Armed Forces, producing refrigerators, and tank and aircraft parts. In 1942, the factory employed 50 of Willoughby's residents.

By 1945, more than 750 were employed by Hallstrom, producing 1200 refrigerators a week. However, while it did provide gainful employment to so many residents, production of the Silent Knight devastated the local area. Speaking to Dr David Pope, the factory's medical officer, Hallstrom stated that he had chosen this site in Willoughby specifically for its proximity to Flat Rock Creek, where he could dump waste. And dump waste he did. Within five years of the factory's opening, residents of Willoughby and Naremburn noticed a remarkable drop in the beauty of the area. Naremburn resident Dick Turner had spent his childhood playing in the area, but when he accidentally fell in the water "...I caught a disease from the water and was confined to bed for the next two to three weeks." Similarly, when a fire broke out on March 2nd, 1948, Hallstrom dumped the 400 damaged refrigerators along the creek.

In 1944, Willoughby Council approved the development of playing fields in the Flat Rock Gully area. Hallstrom was asked to cooperate with this process and, donated

£3000 in labour cost. This donation was used to construct drainage systems underneath what is now known as Hallstrom Park.

Profits from the factory also helped finance Hallstrom's great love: Taronga Zoo. As a trustee in 1941, President from 1951-59, and honorary director from 1959-1969, Hallstrom personally sponsored a specialist farm in Mona Vale to grow food as well as funding the import of exotic animals.

However, throughout the 1960s, Hallstrom was regularly investigated for illegal animal trading. Two public inquiries were launched into Taronga Zoo while under Hallstrom's management. The zoo was criticised for not hiring any zoologists or veterinarians, and excessive use of concrete. 35 people lost their jobs due to illegal animal trading, with Hallstrom allegedly using his influence to remain removed from the inquiries.

Opinions on Hallstrom himself differ greatly. Brian Day, a welder, said of the industrialist, "Mr Hallstrom...was a good man at heart, but very blunt and abrasive. You could never work fast enough for him". A carpenter from Taronga Zoo saw Hallstrom as an excellent boss who treated the carpenters well, but he also remembered the group being regularly called out to undertake work on projects at his private farm.

Post-World War II, Silent Knight refrigerators were competitively priced compared with imported models. Buoyant sales of his refrigerators made Edward Hallstrom a millionaire and he turned his attention to philanthropic pursuits. However, the factory failed to adapt to increasing competition from more advanced refrigerators made at the Email factory at Orange or Elizabeth in South Australia and the Willoughby enterprise closed in the 1960s, bringing to an end Hallstrom's involvement in Willoughby South. The factory was subsequently demolished and Mirvac built the Castle Vale apartment complex on the site.

References Audrey Tate, 'Hallstrom, Sir Edward John Lees (1886–1970)', Australian Dictionary of Biography, Vol. 14, MUP, 1996. McKillop, R F, Managing our Waste: an Environmental History of the Willoughby Incinerator, 1900–2011, MWA Int, 2012 Interviews: Felicity Windzor, Brian Day, Harry Fox, Don Soper.

President's Message

I recently accepted the position of President of the Willoughby South Progress Association, following on from the fabulous Linda Tully, who did an amazing job over the last 18mths. The Committee have been very welcoming and supportive.

I grew up in Castlecrag, lived in Middle Cove and now, Willoughby South for the last eight years. This is a wonderful area and I had always wanted to be more involved with the community so joining WSPA seemed like a great way to start.

One of the most critical topics in our area is the 2021 Local Environmental Plan (LEP) due for release by the end of this year. It will replace the 2012 plan and establishes new zoning controls and residential targets. Rezoning generally means greater density, so you could live in a street or near an area in which multi-residential buildings are now permitted. This is a regular topic for WSPA with residents and while it may not be your wish to have an apartment block next to your house, if your street is zoned R3 and the development conforms to Council's Development Control Plan (DCP), it will be approved by Council. Willoughby is a highly sought after area, with its proximity to the CBD and Chatswood and developers are keen to capitalise on this, so balancing the mix of homes and multi-storey dwellings is an ongoing challenge. Progress associations are the resident's voice to council and state government and can help raise concerns when individual residents can't.

Public amenities, small businesses and the environment are also critical to our community. Again, we need to consider how development may impact these. Arising from the upgrade of the Warringah Freeway over the next two years it is anticipated that traffic will increase along Willoughby Rd. This may lead to further parking restrictions in the Willoughby South shopping precinct, impacting businesses and their customers.

Appendix L:

Mon, Mar 8, 11:05 AM

cammeraycommunity@gmail.com <cammeraycommunity@gmail.com>

to gail.giles-gidney, tony.mustaca, Craig.Campbell, angelo.rozos, wendy.norton, judith.rutherford, stuart.coppock, Christine.Tuon, nic.wright, hug

Dear Mayor Giles-Gidney and Willoughby Councillors,

Firstly we would like to thank you for the detailed submission that Willoughby Council has prepared with respect to the Beaches Link and Gore Hill Freeway Project. We have some feedback that we hope will inform your final submission:

1. Cammeray Public School's catchment extends across both the North Sydney and Willoughby Local Government Areas
2. Due to zoning approximately 300 of our children live in Willoughby and need to cross from Naremburn to access the school. We have 2 school buses which travel along Brook St and many children who navigate Miller St and Brook St via active transport and others who's parents drive the route. Understandably the volume of daily construction vehicle movements on Brook St are of great concern to the school and it's community. Children from many other schools ie Anzac Park, Cammeraygal, Private Schools also use this route to school as do multiple school buses.
3. The Beaches Link project will see three of the major construction sites impact within our catchment boundaries: the Cammeray Golf Course Site to the South, the Flat Rock Dive Site to the North/West and the Middle Harbour dredge site and works to the North/East.
4. Our key concern in writing to Willoughby Council is what's proposed along the Brook St corridor and in and around the areas sports fields and parks. We are concerned about the proposal for a median strip along Brook St preventing a right hand turn to access the Cammeray ramp to West St. This would force parents to drive their children down the hill and either stop or go past the dive site (which has a number of contamination risks associated) and then travel through Northbridge to access the school.
5. There is a predicted increase in traffic through Northbridge and along Miller St due to commuters avoiding the Flat Rock site. Adding more traffic to this already busy route is not the answer.
6. The active transport links joining Willoughby and Cammeray are already disjointed for children and there is concern about children walking and riding both from a safety perspective and health perspective as they are forced along very busy polluted roads.
7. We note that the opportunities for urban renewal suggested by Willoughby Council are limited to areas further North of the projects footprint. Might Willoughby Council and the NSW government consider how they can ensure some long term benefits to the area most impacted and an improvement in health, visual amenity and safety for children as an outcome overall?
8. Our school utilizes local parks such as Cammeray Oval, Bicentennial Reserve and Tunks Park for activities and school sport. We are very concerned about the risks to children around contamination particularly in light of recent sewerage events. Much of the EIS demonstrates risk but also demonstrates that it hasn't been quantified via testing.

We would like to ask that you consider the following in your submission:

a) The urban renewal of Brook St via slower speed limits and a return to it being prioritised as a local road rather than a thoroughfare
b) An active transport over or underpass (would need safety cameras) of Brook st which would link to active transport links in Cammeray
c) a condition that safety wardens will be placed at Brook/ Merrenburn and Miller/Palmer before and after school during construction
d) once operational a set of lights at Slade St coordinated with Brook St to allow safe entry and exit of roads that have been cut off by other major road projects.
e) improved safety of the Naremburn bus stop and a review of the bus route to avoid the Dive Site Area
f) replacement of the Willoughby Rd bridge to ensure safer gradients for bikes
g) full contamination testing and publication of results before approval/support is given to the dive site being placed in Flat Rock
h) our school is working hard to be sustainable and our children are all involved either in the classroom and outside it - please strongly advocate for a reconsideration of this project in light of very high resource use, damage to our shrinking urban bushland, impact on waterways and the increase in vehicle trips it induces. We support your calls for a full review of public transport alternatives.
i) Real time alert style air quality monitoring to enable parents of sensitive children (we have many with asthma) to choose an alternate transport method if pollution levels reach unacceptable levels ie) diesel, dust etc
j) consultation with Cammeray Public's P&C in the development of construction and operational traffic plans and active transport plans given the complexity and risk of the route between Willoughby and the school.
k) an objection to the project until such time as a business case is made available, a public transport alternative assessment is complete and contamination testing results are released for public consultation.

Yours Sincerely
P&C Executive Cammeray Public School

Anna Bragg - President
Jocelyn Yem - Vice President
Larissa Penn - Vice President
Kelly Reedman - Treasurer
Rebecca Holbrook - Secretary

Giles-Gidney, Gail

Wed, Mar 10, 9:32 AM

to me

Dear P&C Executive,

My apologies for not getting back to you sooner. I hope you can appreciate that it was very busy in the lead up to Monday's Council meeting.

Please be assured that your comments and those of other community members and organisations were very much taken into account when considering WCC's submission.

I remained concerned regarding the potential impact of this project on our and neighbouring areas. This has been reflected in the detailed submission that was adopted unanimously by Council on the 8th of March.

The meeting can be viewed on our website and minutes will be available soon.

Kind regards and many thanks for your efforts on behalf of your school community.

Gail Giles-Gidney
Mayor

Gail Giles-Gidney - *Mayor*
WILLOUGHBY CITY COUNCIL
PO Box 57 Chatswood NSW 2057

willoughby.nsw.gov.au | visitchatswood.com.au | theconcourse.com.au

Appendix M: Cammeray Park (including Golf Club) Contamination Issues and Complaint

See WEPA submission for more detail

Naremburn Matters \ September 2021 Volume 18 No. 3

Western Harbour and Beaches Link Tunnel update

Residents may not have noticed but ancillary works around the Warringah Freeway have commenced and, so far, have confirmed our worst fears in relation to the management of potentially contaminated land.

The principal piece of legislation dealing with the management of contaminated land in NSW is the *Contaminated Land Management Act 1997* (**CLMA**) which sets out standards and procedures in relation to the assessment and management of contaminated land. Basically the CLMA sets up a staged process for dealing with contaminated land. The first stage involves the identification of potential contaminants. The next stage involves testing for those potential contaminants, determining their extent and concentrations, and designing appropriate remediation; part of this stage involves the preparation of a Detailed Site Investigation report (**DSI**) for consideration by the Department of Planning Industry and Environment (**DPIE**).

Remarkably, benefit cost ratios appear to be determined before even the first stage is complete and planning approval is given when all that has been done is that potential contaminants have been identified (and even this wasn't done properly for at least the Beaches Link Tunnel: see WEPA submission).

Planning approval for the Western Harbour Tunnel having been given, Willoughby Environmental Protection Association (**WEPA**) has been looking at some of the DSIs for the preliminary work sites and the picture is very worrying. Taking the DSI for the six preliminary work sites within Cammeray Golf Course as an example:

1. he DSI is not prepared by an independent expert but by one of the partners in the Sydney Program Alliance, a partnership standing to benefit from the project proceeding
2. Although Transport for NSW (TfNSW) undertook in public consultations and the EIS to have DSIs reviewed by an 'independent EPA accredited auditor' it watered down this commitment in its response to public submissions so that this would only occur where contamination was "complex". This change cannot be justified by anything in the public or institutional submissions TfNSW was responding to but is important because such commitments become enforceable Conditions of Approval but where inconsistent commitments are made it is the later commitment which is enforceable
3. The DSI hasn't complied with the requirements for DSIs set out in the CLMA in that insufficient samples have been taken, results of previous testing have been used without being verified, samples haven't been handled properly, and results have been averaged when they shouldn't have been
4. The DSI is misleading in important respects
5. The DSI uses standards for industrial/commercial use although the sites adjoin land used for recreational use and several results exceed the standards for recreational use

WEPA has sent a formal complaint to DPIE setting out these concerns in more detail and the complaint will be available on the WEPA website in the next few days.

JOHN MORATELLI
PRESIDENT OF WILLOUGHBY ENVIRONMENTAL PROTECTION ASSOCIATION (WEPA)

HIGH HOPES TV TOWER TO BE DOWN BY EARLY 2022

Photo: Mirvac

Despite the COVID-19 lockdown, the dismantling of the 233m-high former Channel Nine TV tower at the Mirvac Willoughby residential development site still seems to be on track.

According to the Mirvac Willoughby website, the erection of a 200m-high special-design crane – which boasts huge concrete footings sunk into the bedrock and attached by cables from the halfway mark – was constructed in July and August.

The crane initially will be used to remove the highest half of the tower, a dominant feature of the North Shore skyline since 1965. Once the tower's lighter top half has been removed, the top of the crane will be replaced by a larger crane, which will be installed over three months to lift off all the remaining bulky and heavier sections.

Mirvac has assembled a team of internationally recognised engineers and contractors for the complex removal, which, after starting in May, was expected to take about nine months.

Mirvac, in partnership with international heavy-lifting experts Marr Contracting and specialist dismantle contractor Kordia, anticipates the safe dismantling and removal of the tower from the site will be completed by early 2022. For more information https://nine.mirvac.com/community-updates.

BILL COLHOUN
NAREMBURN RESIDENT