

Motorways, tunnels and smokestacks in North Sydney – the facts

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The plans – recap and updates

The NSW State Government plans to build **two new motorway tunnels** (although full details for the 2nd have not yet been published): the **Western Harbour Tunnel** (WHT) and the **Beaches Link** (BL). The WHT is to stretch from Rozelle, in the Inner West, 7km under Sydney Harbour, to the Warringah Freeway (M1) in North Sydney, already Australia's busiest road corridor. The simultaneous **Warringah Freeway Upgrade** involves building entry & exit portals for the WHT just north of the Ernest St flyover, and beside St Leonards Park, near Ridge St. Major realignment of traffic flows (for example, traffic from Miller St or Brook St will **only** have access to the Harbour Bridge) will encourage rat-runs for vehicles to reach chosen routes. The freeway will be widened significantly between North Sydney & Cammeray. The Environmental Impact Statement (EIS) for the WHT and freeway upgrade has just been published. There is to be **no change in the system of ventilation** for the tunnels – it will be **longitudinal**, with **no filtration**. A huge chimney, 30m (100ft) high, will spew unfiltered fumes from 14.5km of tunnels – the northbound WHT and the southbound Beaches Link – right beside the Ernest St flyover, from the (currently tree-planted) traffic island in the middle of the freeway.

The **Beaches Link** (BL) is planned to extend 7.5km north-eastwards from the Warringah Freeway at Cammeray (entry & exit portals between Ernest & Miller Sts) and from the Gore Hill Freeway at Artarmon. It will pass under Middle Harbour to Seaforth and North Balgowlah, to link with the A8 near Balgowlah Golf Club and the Wakehurst Parkway. The EIS for this is due to be published in mid-2020, but it is already clear that unfiltered smokestacks will also be built at Artarmon and North Balgowlah.

A rail alternative link to the Northern Beaches – eg, light rail from Chatswood to Dee Why – has NOT been evaluated by the government despite population growth already planned for the area.

The total cost of the two tunnels – each three lanes wide – is estimated to be **at least** \$14bn, or \$10,000 per cm, but if it follows the trend of other major state infrastructure projects, it's likely to cost much, much more. (**The state government refuses to release the business case for the project, so it is impossible to evaluate.**) It has been suggested that, in order to raise funds, tolls will apply in both directions – **north and south** – on the existing Harbour Tunnel and Bridge.

Timescale The timescale for these works is unclear, but publication of the EIS for the WHT is

already six months behind schedule, and construction work seems likely to take at least five years. We foresee widespread environmental disruption, including noise, severe vibration, pollution and vast numbers of truck movements 24/7, probably until 2025, 2026 or even later.

The documents speak of a number of **neighbourhood parks/reserves** (including parts of St Leonards Park, Jefferson-Jackson Reserve, Anzac Park, the small green reserve next to Rosalind St East, Cammeray Golf Club, Flat Rock [between Naremburn & Northbridge]) and green areas around Berrys Bay, Waverton, and in Artarmon **being commandeered for years** for use as works depots and tunnelling sites. Some will be lost permanently.

The WestConnex connection The above works need to be seen in a wider context, however. The **Rozelle Interchange** – a kind of underground spaghetti junction, from where the WHT is planned to start – is part of the grandiose WestConnex Stage 3 project, which is intended to link the M4 and M5 motorways through a swathe of the Inner West.

WestConnex has engendered great community opposition because of the wholesale destruction of many inner suburban neighbourhoods, including much of heritage-listed Haberfield. So far no acceptable bid has been made/received for constructing the Rozelle Interchange. Serious doubts have been widely expressed as to whether these projects can be delivered for the projected overall budget of \$45bn.

The EIS for WestConnex Stage 3 resulted in thousands of submissions – almost all in strong opposition. There have been numerous complaints of houses cracking and subsiding, many of them at a significant distance – up to 300m – from the tunnelling, and are the subject of ongoing damages claims against the government and contractors

Roads for sale Meanwhile, to help (in a small way) to finance its plans, the NSW government has announced the sale of a 51% stake in Sydney Motorways Corporation, which is the publicly-owned builder and operator of the motorways, to private interests. The sale – for little more than \$9bn – guarantees an increase in tolls chargeable to motorists of 4% each year, or the inflation rate, **whichever is higher**.

(Just to emphasise the money-making aspect, it has recently become public that heavy lorries aiming to avoid paying tolls on the new NorthConnex tunnel near Wahroonga will be fined up to \$200 for taking free bypass routes.)

Why the plans are so bad

Impacts on local residents and businesses will be felt keenly before, during and after construction, **and will not solve Sydney's road congestion problems – indeed, may increase them.**

Immediate effects Already, the plans are feared to have put a dampener on **property prices** in affected areas, especially those near mooted **construction sites** and where **excavated rock or contaminated sediment** dredged from the Harbour may be stored or dumped, such as Cammeray, Northbridge, Naremburn, White Bay (Balmain), Berrys Bay (Waverton), and – for the Beaches Link – North Balgowlah and The Spit (near Mosman).

During construction Once – IF – building gets under way, there are likely to be very high volumes of **truck movements** (60 to 120 lorries per day have been quoted) 24 hours a day, 7 days a week, on the Freeway and local streets.

Where tunnelling takes place there will be constant **noise and ground vibration** as digging machines penetrate solid rock. **Mountainous loads of spoil** and dredged sediment – totalling almost a million cubic metres – will be dumped, at least temporarily, or carted away. (It is claimed that major earth-moving will be done by freeway, but this will not silence the noise.)

What is more, **sections of the Warringah Freeway will be closed at night**, diverting traffic onto Pacific Highway and such local roads as Miller St and Willoughby Road.

Permanent environmental damage No one can yet be certain how much land, or where, will be taken permanently to be **covered in concrete** for the new roads or other ancillary structures. However, the EIS envisages **taking 3 hectares – about one-third – of Cammeray Golf Club for a pumping station** for the exhaust fumes generated by vehicles in the 14.5km of tunnels terminating at North Sydney and Cammeray.

Smokestacks – up to 30m (100ft, or 10 storeys) tall – will disfigure the landscape, from Rozelle to Cammeray (**including the 30m one beside the Ernest St flyover, between Anzac Park and Cammeray Golf Club**), Artarmon and Balgowlah. The seabed floor in Middle Harbour will be damaged and toxic sediments in Sydney Harbour dredged up. Hundreds, if not thousands, of trees will be removed to make way for the works.

Noise and fumes When – after years of construction work – the new roads are opened (around 2025–27 is the aim), local residents will be subjected to **constant traffic noise**. And – most worrisome of all to many people – **noxious fumes** containing carcinogenic particulates and poisonous carbon monoxide, benzene and nitrogen oxides will be emitted from **unfiltered smokestacks** (exhaust stacks, or chimneys), close to schools and homes.

Research shows that the emissions are most intense within 500m of each stack, but that the tiny particles can be detected at a distance of up to 1.2km. North Sydney and Cammeray have the highest density of schools – public and private – and childcare facilities in the whole of Australia, with a total of some 9000 pupils. And the fact is that **children are at greatest risk** from the effects of these emissions, because they tend to breathe more through their mouths, without nasal filtration. As a result, carcinogenic emissions can become permanently embedded in their lungs and bloodstream. Imagine such emissions added to the nightmare of continued – maybe increasing – bushfire smoke resulting from global warming.

Filtration And – **unlike most advanced countries around the world** – New South Wales has **NO** plans to filter the emissions from these smokestacks. The additional cost of filtration would be trivial (even at inflated RMS estimates, less than 5% of project costs). Yet the state government has dismissed this process as unnecessary – despite the Premier Gladys Berejiklian (when she was in Opposition) campaigning for filtration of exhaust stacks from the 3.6km Lane Cove Tunnel, in her Willoughby electorate. Perhaps, if she gives way, she fears a backlash from other areas?

NOTE that modern long urban tunnels in such diverse locations as Madrid, Italy, Tokyo and Hong Kong all have filtered ventilation; **mainland China, India – and Australia – do not.**

The example is sometimes given of the Stockholm E4 bypass tunnel, which is 18km long and has unfiltered stacks. The big difference is that **this tunnel has multiple 'exchange' exhaust stacks, none more than 3.8km apart**, each thus emitting far smaller quantities of fumes and pumping in clean air into the tunnel.

It is interesting to note that signage in existing Sydney tunnels advises motorists to close all windows and to switch ventilation systems to "recycle" to prevent polluted air entering their vehicles – this is the air the NSW government expects our children to breathe.

How and where to find out more

Printed copies of the EIS can be consulted at the Stanton Library, Miller Street, and at Willoughby Library, Chatswood. An online copy can be consulted and/or downloaded (3.3 gigabytes!) from www.planningportal.nsw.gov.au/major-projects/project/10451.

Don't look just at the 28pp Executive Summary. The devil, as ever, is in the detail – not only in the 28 chapters (almost 1200pp) of the EIS proper, but also (if you have time) in the many thousands of pages of appendixes. Of particular interest to North Shore residents will be the sections detailing the impact on the North Sydney and Artarmon areas (Appendix V, parts 4.7 and 4.8)