

Pollution and Air Quality

Objection

I object to increased pollution and poor air quality from unfiltered ventilation stacks and increased surface road traffic.

The proponents argue that the cumulative project from exhaust stacks spewing out over 40km of polluting road (15.8km * 3 lanes) will not be significant.

However, any additional pollution that our community is subjected to gives poor health outcomes. This is well researched and documented. The proponents seem to ignore any information that does not fit with their 'no-filtration' agenda. I wonder whether this is to placate Transurban (the future buyers, maintainers and overlords of the project). The proponents certainly have used some dubious information when it comes stating their case that air quality will not be significantly impacted. In order for the proponents claims that the unfiltered Ventilation stacks will have minimal impact, then their assumptions about emissions and surface road traffic reductions must be accurate.

It is untenable that exhaust stacks are unfiltered. Even the Chief Health Officers comments that 'that will take the total number of Unfiltered Exhaust stacks for road tunnels in the Sydney Basin to 11'. This is far more than anywhere else in the world and is a poor indictment on our government and the duty of care it has to the people it serves.

Further, I object to the significant uplift in surface road pollution. The proposed EIS Changes to the Warringah Freeway access will generate additional rat running across the North Sydney LGA and when combined with extra vehicle movements on the freeway from the WHT exits will increase, not decrease surface road pollution. This is the same area where the unfiltered Stacks will disperse more pollution.

Revisit the EIS

The EIS should be revisited to address the following:

- 1. The EIS must be revisited to correctly outline the air quality impacts based on the air quality limits legislated to occur when this project opens**

The EIS ignores the fact that the NEPM goal for PM2.5, which the Federal Government has legislated and NSW has with other States committed to, is being reduced to 7 mcg/m³ from 2025 which is before the Proposed Tunnel will open. The project should not be permitted to add further air pollution over an area which the EIS shows is already higher than the ambient background National Standard of 8 mcg/m³ for PM2.5 fine particle pollution.

- 2. The EIS must be revisited to correctly outline the emissions legislated when this project opens**

The Chief Health officer, in her letter in the EIS, has noted that given Euro 6 is not in place, the NO₂ estimates in the EIS are understated by at least 20%.

The EIS should be recalculated to reflect actual emissions data, as this will impact health assessment. The EIS currently calculates emissions assuming that we will be at Euro 6 standards by 2021. This is dangerous and untrue. The Federal Government has not legislated for this and there is no plan to achieve Euro 6 standards at all in the near future.

- 3. An option for Stack filtration should be provided in the EIS**

Exhaust stack pollution could, and should be removed. Filtration systems exist and function well (removing up to 95% of particulates) in overseas countries. As this information doesn't fit with the proponent's 'no-filtration' narrative, the proponents like to say that this technology is never used anywhere in the world. And indeed the recent technical paper on Road Tunnel Ventilation prepared in December 2019 for the NSW Chief Scientist ACTAQ Committee did a desktop update of current overseas Tunnels but the author stated that they were unable to find out if air treatment is used in the CWB Hong Kong Bypass tunnel. The CWB Hong Kong Bypass tunnel, a 3.6 km road Tunnel, has a full filtration

system of ESP & NOX filtration. This system is clearly described on the Hong Kong Transportation Board & the CWB Project websites.

4. **The cost of filtration should be included** as the additional cost of the filters separate from the ventilation stack and building construction which is a FIXED cost that would happen whether filters would be going in or not. (In order to align to their 'no-filtration' directive, the M5East Trial artificially inflated the cost by including the cost of the Ventilation Building not just the incremental cost of installing the Filters);
5. **The proponents should seek to clarify the cost benefit analysis against calculated loss of life and the 'cost of a life' due to increased particulates**
If the proponents will not use filtration, they should openly show how little they value our children's lives. Cost of life information in relation to air pollution is readily available. They can calculate this information easily and should be made to;
6. **The EIS must be revisited to show accurate air quality data**
The project cannot be approved without understanding correct modelling of air quality on sensitive receptors. The government will be liable for falsely representing this data. Indeed, they will be liable for the harm that they cause our children's health due to this huge air quality burden from these projects¹.
In the Air Quality analysis for pollution impacts the EIS has falsely equated educational premises with residential premises and made a percentage determination rather than a population basis. Populations of local schools near 1000 students per school. As a result, in the GRAL air quality analysis, school populations are grossly under-represented among sensitive receivers within the analysis around the Cammeray Stack and presumably also around the Balgowlah and Rozelle stacks. They are being given a value less than 2% when the population proportion would be at least 23%. These basic statistical errors are used as an input to the health impact assessment and is likely to have led to significant under estimation of the affected school population impacted by the increased surface road and stack pollution projected for the WHT Project in the EIS documents;

Mitigation and Conditions of Approval

The following are mitigations and conditions of approval for the project:

1. Filtration of particulates and gases must be a condition of approval.
2. If filtration is not approved, then diesel /heavy vehicles must be banned from using the Tunnels;
3. If filtration is not approved, there must be a condition that ventilation facilities have capacity for filtration systems at a later date;
4. Longitudinal health studies on the impacts of increased emissions on our population must be performed as a condition of approval. Baseline health studies and ongoing monitoring of residents within range of the unfiltered ventilation Stacks must be done if the Filters are not installed. No other country takes the approach of not using filters on long road (over

¹ Dr Maria Neira, WHO director for public health and the environment:

Neira said that, given the overwhelming evidence of harm from air pollution, any politician who failed to tackle air pollution would be judged harshly by future generations – and the law.

"Politicians cannot say in 10 years from now, when citizens will start to take them to court for the harm they have suffered, that they didn't know," she said. "We all know pollution is causing major damage and we all know it is something we can avoid. Now we need to react collectively and in a very dramatic and urgent way."

5km) tunnels. Either filtration is used, or diesel vehicles are not allowed to use these long road tunnels.

There is plenty of international and Australian medical research showing the short and long term damaging effects of vehicle emissions pollution on the health. There were health studies that identified respiratory issues with residents around the Lane Cove tunnel stacks and a cancer cluster around the M5 East Turella stack. The proponent claims that there were no health issues since these initial studies do not show causality. The follow-up studies were meant to understand causality but were deliberately never followed-up, even though follow-up study was recommended in the initial reports;

5. If there is an accident in the tunnel and a fire, there should be a warning system installed at the Ventilation Stack to alert schools and local residents that an emergency release of smoke is imminent so that they stay indoors. The Burnleigh Tunnel Fire in Melbourne shows the importance of this;
6. The project must not be approved until EURO 6 Vehicle Emission and Fuel Standards are implemented.