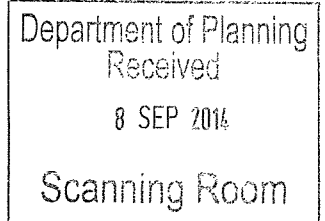




739

Director - Infrastructure Projects  
Department of Planning and Environment  
Number: SSI 13\_6136  
Major Projects Assessment  
GPO Box 39  
SYDNEY NSW 2001



[REDACTED]

5th September, 2014

**NorthConnex Application Number: SSI 13\_6136**

Dear Sir/Madam,

I thank you for taking the time to read and consider my submission in response to the EIS for NorthConnex.

I strongly *object* to the project as described in the EIS.

I hold *grave* concerns about the NorthConnex tunnel and the impact on public health of residents in Wahroonga who live near the proposed north ventilations stack. I request that my concerns be taken seriously by both NorthConnex and the Department of Planning. Public health should be the primary concern of any *ethical* organisation or government!

My concerns are as follows:

1. The location of the north ventilation stack in a *residential area* in Wahroonga. Over 9000 school children will be exposed to pollutants. In addition, two hospitals, multiple aged care facilities and many, many homes. In my view it is unethical to locate the stack amidst homes and schools in Wahroonga and compromise public health in this way, particularly the health of children who inhale more often, and thus would be more adversely affected (stunted lung development with long term effects, increased asthma etc). In addition, Wahroonga Park, which is close to the proposed north ventilation stack, is filled with toddlers and young children, pregnant mothers and the elderly each day. The children's play equipment is currently being upgraded and will attract even more residents and families from out of area. This beautiful park, which is frequented by the public for community concerts, food festivals, mothers' groups and children's playdates should not be impacted by emissions from the ventilation stack. Children's lives are being put at risk.
2. The location of the north ventilation stack in a valley in Wahroonga. There is little wind in the valley resulting in poor dispersion of pollutants from the

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smoke stack. This will mean that Wahroonga community are exposed to high levels of tunnel emission, posing a massive threat to public health.

3. Multiple large scale research studies describe the impacts of air pollutants on health as serious. Both the AMA and Asthma Foundation, as well as hundreds of local doctors are *deeply* concerned about the impact of particulate matter from the north ventilation stack on residents in Wahroonga. Exposure to PM<sub>2.5</sub> has adverse effects on cardiovascular function (including increased death from heart disease and congenital heart defects), plus respiratory effects (increased risks of lung cancer, stroke, poor lung growth in children, increased asthma). Recent research also suggests low birth weight for pregnant women and increased autism. Medical studies confirm air pollutants have prothrombotic and inflammatory effects on humans which cause the above health problems.

[REDACTED] as one in 10 Australians suffer from asthma, ventilation stack emissions will increase the adverse effects of asthma for many others.

4. Portal emissions in a densely populated area, with emissions remaining at ground level, is also of great concern as the residents of Wahroonga are exposed to pollutants. NorthConnex's claim that there will *no* portal emissions from the current proposal *cannot be verified*.
5. Unlike other tunnels in Sydney which are predominantly used by cars, the North Connex tunnel is being designed to enable heavy freight to bypass Pennant Hills Rd. As a result, a large amount of diesel emissions will be emitted from the NorthConnex tunnel. The World Health Organisation has classified Diesel emissions as carcinogenic and containing a larger number of fine particles which penetrate deep into lung tissue and remain there causing inflammation.
6. Air quality within the tunnel is also of great concern. The EIS reveals above standard levels for pollutants as well as haze from particulate matter at both ends of the tunnel.
7. There are multiple flaws in the air quality modelling of the northern stack in the EIS. These include:
  - a) the background air quality being based on air quality at Lindfield and Prospect and the lack of any actual data on PM<sub>2.5</sub>.
  - b) The failure to consider polluted intake air from the Pennant Hills/M2 interchange as part of the project contribution to air quality at Wahroonga;
  - c) extrapolation of meteorological data from other weather stations which do not reflect the local meteorology, local topography, and the valley location;
  - d) The use of a coarse topographical model;
  - e) Predictions for levels of usage of the tunnel. Other tunnel projects have revealed predictions were way below the actual usage later. In particular, the number of diesel trucks using the

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tunnel and the resulting pollution needs to be carefully assessed.

8. I cannot believe that a full and transparent options assessment process was not undertaken to assess *alternative* designs for the project! I am *appalled* that you have not looked at alternatives for locating the stack and portals in non-residential areas (unlike other tunnel projects in Sydney). The proposed location of the north ventilation stack is completely unacceptable if you care at all about public health!
9. The justification provided for *not* providing filtration for the stacks is cursory and unconvincing. Tunnels in Japan have shown that proper filtration systems (electrostatic precipitators) can be effective in reducing pollutants. The impact of pollutants on health is a major cost to the economy and it is short sighted and negligent to simply save money in the short term through not providing an effective filtering system, which will have dire consequences on health in the long term, and hence a drain on the economy.
10. I am deeply concerned that the tunnel as it is currently proposed means that trucks will travel uphill from Pennant Hills to Wahroonga which means that greater carcinogenic emissions will be spewed out of the stack at Wahroonga. A more sensible design would have used a flat tunnel. No consideration of the existing topography and height above sea level has been taken into account in the current proposal.

In response to my concerns outlined above, I request that the following actions be undertaken:

1. The impact of air quality on human health should be revised and be properly assessed by external, unbiased medical experts to address the issues raised above. Such assessments should NOT be made by anyone whose services are paid for by Transurban.
2. Alternative locations for the ventilation stack and portals should be assessed by an independent options assessment team.
3. A Life Cycle Analysis and assessment for the provision of filtration should be undertaken by unbiased specialists.
4. As part of the conditions for approval, a long term health study on children and residents in areas impacted by stack discharges (particularly including diesel fumes from heavy freight) be included.
  5. A comprehensive air quality monitoring program be developed and implemented that measures ultrafine particulate matter (PM<sub>2.5</sub> and smaller ) that is emitted from the ventilation stack.
6. An independent review of the ventilation system be undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
7. Portal emissions from NorthConnex in the future are banned.
8. The Submissions Report/Preferred Project be exhibited to allow the community to respond to the revised information contained in the report.

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9. The Department does not approve the project in its current form as it clearly does not meet the principles of Ecologically Sustainable Development as required by the Environmental Planning and Assessment Act.
10. That an effective ventilation system (electrostatic precipitators, as used in Japanese tunnels) be provided to radically reduce the small particle emissions from the stack that are directly harmful to human health.

In closing, as well as finding an alternative location for the north ventilation stack that is *not* in the midst of a residential area (Alternatives include Hornsby Industrial Estate, or further up the Freeway in an area surrounded by bush), I suggest the government consider removing freight trucks from our roads and putting money into a rail-freight project (Brisbane-Melbourne Inland Rail). Alternatively, I propose an orbital surface route to ease congestion on Pennant Hills Rd, rather than the proposed Northconnex tunnel.

It is completely unethical to let a project go through that will affect current lifetimes and generations to come. I *fiercely oppose* having an unfiltered pollution stack in the midst of a residential area. If you, the reader, lived near the stack in Wahroonga, you would be as deeply concerned about the impact on your *own* health and the health of your children, as I am! Research shows that lung and respiratory function of residents 650 metres from the Lane Cove tunnel was affected by tunnel emissions. And that tunnel is 1/3 of the length of the proposed NorthConnex, and is not full of diesel trucks!

Public health must be the priority, regardless of cost! If this project was to go ahead in its current form, there would be repercussions from this negligence for both the State government and Transurban (eg. ICAC hearings; a class action from health-affected, Wahroonga residents).

I look forward to hearing you have considered and taken action on my many concerns.

Yours sincerely,

