

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

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

Please find below my submission in response to the exhibition of the EIS for NorthConnex.

I wish to register my **OBJECTION** to the project as described in the EIS.

There are a number of issues that I am concerned about, as set out hereunder;

1. Placement of the northern ventilation stack in the center of a densely populated residential area in Wahroonga, where 9,300 school children will be exposed, as well as multiple aged care facilities, hospitals, businesses and homes. **A 2010 report co/authored by Gerda Kurschel, the independent expert retained by NorthConnex** for the air quality forum, titled 'Stocktake of Air Quality around State Highway Tunnels, states **'One of the great advantages of road tunnels is the opportunity to deliberately site portals (or stacks) away from sensitive receptors so that road transport emissions may be removed from dense residential areas improving local air quality'**.
2. The placement of the northern ventilation stack in a valley in Wahroonga where there are often low wind speeds, which will result in poor dispersion and exposure to community to high levels of tunnel emission. **The local area is currently affected by pollution from the M1**, probably to same effect as Pennant Hills Road even though the M1 carries not only the traffic to and from Pennant Hills Road, but also the Pacific Highway. The proposal to collect the exhaust from 9 km of tunnel (effectively substantial diesel pollutants) and exhaust it at residential location already affected by pollution is beyond comprehension. **As there have been no air quality studies conducted in the immediate locality (or if there has been it has not been disclosed at any of the forums and within the EIS) say, up to 500m of the proposed stack site, how can a layer of further contamination and pollution be justified particularly given the paucity of current lack of information on conditions.** I consider that the Air Quality studies should have preceded any consideration of the site and therefore the EIS is deficient in this regard.
3. On page 448 of the EIS, the reader is advised that the location of the exhaust stacks should be near the portals, to maximize the benefit of the piston effect and so minimize the need for additional energy consumption and reduce greenhouse emissions, improved land access, (reduce) land acquisitions, (reduce) engineering and construction potential landscape and visual impacts and the location of major infrastructure. **These stated benefits are**

development cost related and do not offset the detrimental health effect on people living in adjoining residential areas, attending schools and other residential/medical developments.

4. **The question should be, 'Is this the best location for the portals and the exhaust stack having regard to the health and wellbeing of local residents. The answer from NorthConnex is NO** particularly when there is the ability to in the planning stage to locate the portals and stacks to a more benign location. We have been advised that cost of construction (money) should not be an issue when considering the public health. **There are better options, such as extending the tunnel a further 2km (either by tunnel, cut and fill or a combination of both) to exhaust the stack within the industrial area** away from residential areas. The EIS states that the area around the stack is residential with native vegetation areas. If Wahroonga Park is discounted (used by adults and children alike) this statement is incorrect and has the potential to mislead the reader. Lapses of providing misleading information has, unfortunately, occurred throughout this process.,e.g. one of the videos available on the web shows the location of the portals and within what appears industrial and not a residential area.
5. **I am concerned about the multiple large scale research studies that suggest the impacts of air pollutants on health** include increased death from heart disease, increased risks of lung cancer, stroke, poor lung growth in children, increased asthma, and recent research suggesting low birth weight for pregnant women, increased autism, and congenital heart defects. **The EIS section on health effects has been prepared having regard to the Air Quality advice from NorthConnex.** As I consider that their studies are based on modeling of information from areas of differing topography and surrounding forms, and not from the actual site, the veracity of the health statement must be considered. I also refer to point 1 as to the non-desirability of having stacks and portals within residential areas.
6. **I am concerned about the project including future provisions for portal emissions in densely populated areas**, which will result in emissions remaining at ground level, and hence exposing the local population to additional pollutants. I am also concerned that NorthConnex's claim that there will no portal emissions from current proposal cannot be verified. The only safe option, by having portals and stacks within a residential area, is to filter the exhaust from the tunnel.
7. **I am concerned about the large amount of diesel emissions which will be emitted from the NorthConnex tunnel**, as it is being designed for heavy freight to bypass Pennant Hills Rd. **Diesel emissions have been classified as carcinogenic by the World Health Organisation**, and also contain a larger number of fine particles which penetrate deep into lung tissue and remain there causing inflammation.

8. **I am concerned about the multiple flaws in the air quality modelling of the northern stack in the EIS.** These flaws, which can adversely affect the inputs into other studies contained in the EIS, include:
  - a) Extrapolation of meteorological data from other weather stations which do not reflect the local meteorology, local topography, and the valley location.
  - b) The use of a coarse topographical model
  - c) The failure to consider polluted intake air from the Pennant Hills/M2 interchange as part of the project contribution to air quality at Wahroonga
  - d) 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>
9. **I am concerned that a full and transparent options assessment process was not undertaken to assess alternative designs for the project.** Unlike other tunnel projects in Sydney there are alternatives for locating the stack and portals in non-residential areas.
10. **I am concerned that the justification for not providing filtration for the stacks is cursory and unconvincing.**
11. **Providing filtration would appear to be a solution, provided it is not turned off. Lack of filtration would appear to be cost based rather than good outcomes for the nearby population.**
12. **I also have concerns as to the traffic information within the EIS. From my reading of the traffic section of the EIS it would appear that the basis of estimating future traffic flows is based upon the developer's model rather than being obtained from or estimated by independent sources.** Given the recent public disclosures as to the validity of traffic counts in financially failed tunnels, the traffic forecasts are a vital part of the proposal. This is particularly given that this tunnel relies upon significant public funding. This critical information should be carried out by an independent party.

To address my/our concerns I request that the following actions are undertaken:

1. The air quality and human health impact assessment need to be revised to address the issues raised above.
2. An independent options assessment process should be undertaken to assess alternative locations for the ventilation stack and portals.
3. To undertake a Life Cycle Analysis and assessment for the provision of filtration.
4. The future traffic flow information is provided by an independent party. The current position is that NorthConnex could be perceived to have a conflict of interest.
5. Due to significant public funding committed to this project, that the financial projections be audited in order to protect public monies.
6. A long term health study on children and residents in areas impacted by stack discharges be included as part of the conditions of approval.
7. A comprehensive air quality monitoring program is developed and implemented.

## **NorthConnex EIS Submission**

8. An independent review of the ventilation system is undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
9. Portal emissions from NorthConnex in the future are banned.
10. The Submissions Report/Preferred Project is exhibited to allow the community to respond to the revised information contained in the report.
11. 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.

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