

10 September 2014

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

Via online form:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6136

NorthConnex Application Number: SSI 13_6136

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

Firstly we would like to state we **object** to the project as described in the EIS.

It is apparent to us that:

- A considerable lack of research and diligence has been carried out regarding the amount of pollution that will be coming out of the tunnel.
- Forecasts on wind patterns have NOT been based upon where you are proposing the site for the stack in Wahroonga- forecasts and topological data has been based upon Terry Hills which is not representative at all of where you propose to place the stack.
- Lessons that can be learnt from other tunnels such as the Lane Cove and M5 have not been taken into account, and we are worried that pollution in the M5 is not being monitored carefully as a basis for research and assumptions for the new M1-M2 tunnel.
- The stack height is unacceptable- it should be higher and no consideration has been taken into account on how the wind patterns are in the direct vicinity.
- Northconnex have made a lot of assumptions about air quality, the height of what the stack should be and where it should be placed. Should these assumptions be wrong- what will Northconnex do to rectify the situations if they have an effect on our community's health- namely the 9300 young children in the area, the asthmatics, elderly and vulnerable.

We also have a high level of concern directly regarding the following issues and request that these be considered by NorthConnex and the Department of Planning. In regards to the NorthConnex tunnel, we are concerned about:

1. Placement of the northern ventilation stack in the centre of a densely populated residential area in Wahroonga, where 9,300 school children will be exposed, as well as multiple aged care facilities, hospitals, and homes.

NorthConnex EIS Submission

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.
3. We are both **highly concerned** about the multiple large scale research studies that suggest the impacts of air pollutants on health are serious. These 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. These studies confirm air pollutants have prothrombotic and inflammatory effects on humans which cause the above health problems.
4. We are 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 pollutants. **We are also concerned that NorthConnex's claim that there will no portal emissions from current proposal cannot be verified.**
5. We are 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.
6. We are concerned about the air quality within the tunnel which is shown in the EIS to have exceedences above standards for pollutants such as NO₂, and haze from particulate matter at the ends of the tunnel.
7. We are **extremely** concerned about the multiple flaws in the air quality modelling of the northern stack in the EIS. These 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_{2.5}
8. We are 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.
9. We are concerned that the justification for not providing filtration for the stacks is cursory and unconvincing.

To address our concerns we request that the following actions are undertaken:

NorthConnex EIS Submission

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. A long term health study on children and residents in areas impacted by stack discharges be included as part of the conditions of approval.
5. A comprehensive air quality monitoring program is developed and implemented.
6. An independent review of the ventilation system is 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.
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.**

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