

11 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](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 that we **object** to the project as described in the EIS.

We have a high level of concern 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. We are highly concerned about the placement of the northern ventilation stack in the centre of a densely populated residential area in Wahroonga. The surrounding area contains 13 schools (9,300 students), multiple aged care facilities, hospitals, businesses and homes which will all be exposed to increased levels of pollution.
2. We are highly concerned about 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 expose the community to concentrated, high levels of pollution from the tunnel.
3. We are highly concerned about the multiple large scale research studies that suggest the impacts of any amount of air pollutants on health are serious and that there are **no safe levels for pollutants**. The EIS clearly indicates that there will be increased levels of pollutants caused by the NorthConnex tunnel in the areas around the ventilation stacks. The health impacts 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 that the project includes 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. I am also concerned over NorthConnex's claim that there will no portal emissions with current

## NorthConnex EIS Submission

proposal as this assertion has not been backed up with any verification / justification in the EIS.

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 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 a significant distance from the northern stack 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>
7. We are concerned that a full and transparent options assessment process was not undertaken to assess alternative designs for the project or alternative locations of the tunnel portals and stacks. Current global best practice in public health and urban infrastructure requires that stacks be located away from residential areas. There are clear and obvious alternatives for locating the stack and portals in non-residential areas for the North Connex project, however no public or transparent option assessment has been undertaken.
8. 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 NO<sub>2</sub>, and haze from particulate matter at the ends of the tunnel.
9. We are concerned that the justification for not providing filtration for the stacks is cursory and unconvincing.

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

1. An independent, **publically available** options assessment process should be undertaken to assess alternative locations for the ventilation stack and portals
2. The air quality and human health impact assessment need to be revised to address the issues raised above.
3. A long term health study on children and residents in areas impacted by stack discharges be included as part of the conditions of approval.
4. A comprehensive air quality monitoring program is developed and implemented, with the monitoring program in operation for the lifetime of the tunnel. This data must publically available.
5. An independent review of the ventilation system is undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
6. Portal emissions from NorthConnex in the future are banned.

## **NorthConnex EIS Submission**

7. The Submissions Report/Preferred Project be exhibited to allow the community to respond to the revised information contained in the report.
8. To undertake a Life Cycle Analysis and assessment for the provision of filtration
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.

**Michael Ung & Xiaolin Wang**

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## NorthConnex EIS Submission

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