## 30 August 2014

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

As residents with a direct line of sight and living within 500 metres of the proposed ventilation stack at the northern end of the South to North tunnel we wish to state our objection to aspects of 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, I am concerned about:

- The concept and placement of an unfiltered stack which will disperse solid and gaseous emissions collected from 9 kilometres of the tunnel into the centre of a densely populated residential area in Wahroonga, Waitara and East Hornsby, where 9,300 school children will be exposed, as well as multiple aged care facilities, hospitals, businesses and homes.
- 2. We suggest that the idea that this stack will merely be the exit point for tunnel air which has been maintained at "international standards" of purity is an attempt to ignore the "Law of Conservation of Matter". The polluting gases and particulate matter produced by vehicles in this tunnel MUST ultimately be dispersed from the stack under the current design. The placement of the northern ventilation stack in a valley in Wahroonga where there are often low wind speeds, will result in poor dispersion and exposure to community to high levels of tunnel emission.
- 3. As an asthmatic, I am personally apprehensive about the prospect of increased pollution in my area, As well, I am 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. I am also concerned that NorthConnex's claim that there will no portal emissions from current proposal cannot be verified and defies scientific principles.

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- 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. I am 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 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 failure to consider polluted intake air from the Pennant Hills/M2 interchange as part of the project contribution to air quality at the Wahroonga end of the tunnel
  - c) the background air quality being based on air quality at Lindfield and Prospect and so a deliberate failure to measure current levels of air quality in and around the F3 valley in Wahroonga, so that the tunnel operator cannot be held to account.
- 8. We 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, such as further north on the F3 in the "Big Dipper" opposite Kuringai National Park.
- 9. We am concerned that the justification for not providing filtration for the stacks or at points along the tunnel is cursory and unconvincing.

To address our concerns we 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. 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 immediately developed and implemented for the tunnel exit area.
- 6. An independent review of the ventilation system is undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
- 7. Portal particulate emissions from the NorthConnex tunnel be 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.