

12 September 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**

SCAPS Group represents more than 100 concerned residents in the community around the southern interchange at West Pennant Hills. 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. Placement of the northern and southern ventilation stacks

- Placement of the northern and southern ventilation stacks in the centre of densely populated residential areas, where school children will be exposed, as well as multiple aged care facilities, hospitals, businesses and homes.
- The placement of the ventilation stacks in valleys at both ends of the twin tunnels where there are often low wind speeds, which will result in poor dispersion and will expose the community to high levels of carcinogenic tunnel emissions.

2. Impacts of air pollutants on health

- We are 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.
- 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 be no portal emissions from current proposal cannot be verified.
- 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 Road. 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.

3. Air Quality

## NorthConnex EIS Submission

- We are concerned that the justification for not providing filtration for the stacks is cursory and unconvincing.
- We are concerned about the air quality within the tunnel which is shown in the EIS to have exceedances above standards for pollutants such as NO<sub>2</sub>, and haze from particulate matter at the ends of the tunnel.
- We are concerned about the multiple flaws in the air quality modelling of the stacks 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 that polluted air from the stack at Wahroonga will contribute to the intake air at the southbound tunnel entry points at the northern interchange at Wahroonga, will be drawn along the tunnel by the cars using the piston effect and will contribute to the quality of the air spewed out of the southern stack at West Pennant Hills.
  - d) The failure to consider that polluted air from the stack at West Pennant Hills will contribute to the intake air at the northbound tunnel entry points at the southern interchange at West Pennant Hills, will be drawn along the tunnel by the cars using the piston effect and will contribute to the quality of the air spewed out of the northern stack at Wahroonga.
  - e) 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>

#### 4. Alternative designs for the project

- 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.

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

1. All Sydney tunnels must be filtered to remove Group 1 Carcinogens. All new tunnels must have filtration as an integral part of the design. All existing tunnels must be retrospectively fitted with filtration.
2. The air quality and human health impact assessment need to be revised to address the issues raised above.
3. An independent options assessment process should be undertaken to assess alternative locations for the ventilation stacks.
4. To undertake a Life Cycle Analysis and assessment for the provision of filtration.
5. A long term health study on children and residents in areas impacted by stack discharges be included as part of the conditions of approval.
6. A comprehensive air quality monitoring program is developed and implemented.
7. An independent review of the ventilation system is undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
8. Portal emissions from NorthConnex in the future are banned.
9. The Submissions Report/Preferred Project be exhibited to allow the community to respond to the revised information contained in the report.

## **NorthConnex EIS Submission**

10. 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.

SCAPS Group  
[www.scapsgroup.org](http://www.scapsgroup.org)