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11 September 2014

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

Dear Sir / Madam

Re: NorthConnex Application Number: SSI 13_6136

This letter details my objection to this application; my objection is in response to the environmental impact statement (EIS) for the NorthConnex application.

As a well-qualified medical practitioner and health researcher I have serious concerns none of which have been addressed or allayed by the EIS or statements from NorthConnex. I submit these concerns to be considered and addressed by NorthConnex and the Department of Planning.

My major concern is the design of the northern end of the tunnel and the ventilation / emission stack which will be placed squarely in the middle of a residential area which contains many schools and aged care facilities. This area has a very high population of pre-school and school aged children.

The northern ventilation stack will be in a valley where low wind levels will result in settling of tunnel emissions leading to exposure of the local community to avoidable and unacceptable levels of carcinogenic pollutants with inevitable adverse consequences for health.

The risks to human health of vehicle emissions have been well documented around the world. Many organizations including the World Health Organization have classified diesel emissions as carcinogenic. Of particular concern are the small particles emitted from diesel engines (PM_{2.5}) which are clearly carcinogenic and exposure to which, even within the current standards permitted in the EU, is associated with increased death rates from specific causes and an increase in the all-cause risk of death. In addition to the increase in risk of death, exposure is also associated with increased risk of disability due to lung cancer, stroke, asthma and impaired lung development in children.

Given this, any decision to place the portal in a residential area will, without doubt, cause unnecessary and preventable death and disease.

I am not reassured by the air quality modeling in the EIS which is based on flawed assumptions and data from remote areas that are unrepresentative of the proposed position for the portal and stack. For example, the use of background air quality data from Lindfield and Prospect which is remote from the proposed location of the portal and stack, and does not present data on the most harmful known pollutant, PM_{2.5}.

There are clearly other designs for the northern portal that would remove the risk of preventable disease. Unlike other tunnel projects in Sydney there does not appear to have been a full and transparent options assessment process, which is indefensible given that what is proposed is the longest tunnel which will therefore give rise to a higher level of pollutants.

The following actions are necessary to address these concerns:

- I. The Department must not approve the project as currently planned, as it does not meet the principles of Ecologically Sustainable Development required by the Environmental Planning and Assessment Act.
- II. The air quality and human health impact assessment must be revised to address the issues I have detailed above.
- III. A long-term health study on children and residents in local areas must be included as part of the conditions of approval (this is necessary to measure the true impact of the tunnel emissions).
- IV. A comprehensive air quality monitoring program must be implemented.
- V. An independent options assessment process must be undertaken to assess alternative locations for the ventilation stack and portals with the primary goal of avoiding preventable pollution and therefore preventable disease and death.
- VI. Portal emissions from NorthConnex into residential areas must be banned in perpetuity.

Yours sincerely

A handwritten signature in black ink, appearing to read 'S. Finfer', written in a cursive style.

Professor Simon Finfer MB BS FRCP FRCA FCICM MD
Professor of Intensive Care medicine
Intensive Care Specialist