NorthConnex Application Number: SSI 13_6136

I am writing to regarding issues about expected long term health impact from the proposal NorthConnex (M1-M2) tunnel polluting stack.

My name is Yuan, I am a 2 years old little girl's father living very close to the proposal northern stack, The proposal NorthConnex tunnel will be 9 Kilometers long, there are only two exhaust points at the both of tunnel end, due to traffic flow in tunnel as piston-affect, large number of diesel trucks from Pennant hill road to Newcastle through tunnel will push forward this airstream move from southern portal along the 9kms channel to Northern portal, so northern-end will experience extremely high level emission from this non-filtration stack and portal, that enormous emission would never stopped to overhead cover from center of high densely populated residential area in Wahroonga district. I have severe concern as following issues:

The location of proposal northern ventilation outlet near plenty of schools, child centre, aged care facilities, hospitals and homes, some of these local amenities are extremely close to it, such as Abbotsleigh Early Learning Centre (452m), Abbotsleigh School for

Girls (452m), Waitara Public School (473), Wahroonga Preparatory School (409m), KU Wahroonga Preschool (486m), B'nal B'rth Retirement Village (597m), Balamara Preschool (633m), Neringah Hospital, Wahroonga (674m), Netherby Aged Care Facility (817m) Explore & Develop Preschool (686m), Wahroonga Nursing Home (726m), and Prouille Catholic College (777m). The distance of these places listed are all less than 800 meters from the stack while pollutant could spread over 1kms-2kms with wind.

1. I am concerned about worldwide health research reveal the impacts of air pollutants would give human health are serious consequence. These harmful substance from traffic emission include nitrogen dioxide, PM2.5 will bring detrimental effects to breath system cause heart disease, risk of lung cancer, stroke, poor lung growth and asthma to children while they spend most of their time at school near the source of contamination, these particles easier to deeply penetrate little kid organs, lung tissues and remain there causing inflammation. For pregnant women the research discovers their baby would have high possibilities to catch congenital heart defects, for vulnerable elders in aged care facilities, relevant environmental impact would cause significantly unusual mortality.

- 2. I am concerned about large amount of pollutant pump out from daily thousands of heavy diesel trucks and other vehicles which remaining at ground level with low wind speed in Wahroonga area while this 9kms tunnel would operate all the time. Diesel emissions have been classified as carcinogenic by world Health Organizations, all outdoor activities for local residents and kids have to under high risk-considerations in the future all the time.
- 3. I am concerned about the air quality within the tunnel which is shown in Environmental Impact Statement to have exceedance above standards for pollutant such as NO2, and haze from particulate matter at the ends of the tunnel.
- 4. I am concerned that a project options assessment process was not undertaken to assess alternative designs for project planning.
 Unlike other tunnel projects in Sydney there are alternatives for locating the stacks and portals in non-residential areas, and monitoring point was set up near the stack and portal.
- 5. I am concerned that justification for not providing filtration for the stacks if cursory and unconvincing.

To address my concerns I request the following actions are undertaken:

- 1. The air quality and human health impact assessment need to be amended to address the issues raised above.
- 2. An independent options assessment process should be undertaken to assess alternative locations for the ventilation outlet and portal.
- 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 claim of no portal emission is justified.
- 7. Portal emissions from NorthConnex in the future are banned.
- 8. 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.

YUAN ZHU

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Signature: