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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

NorthConnex Application Number: SSI 13_6136

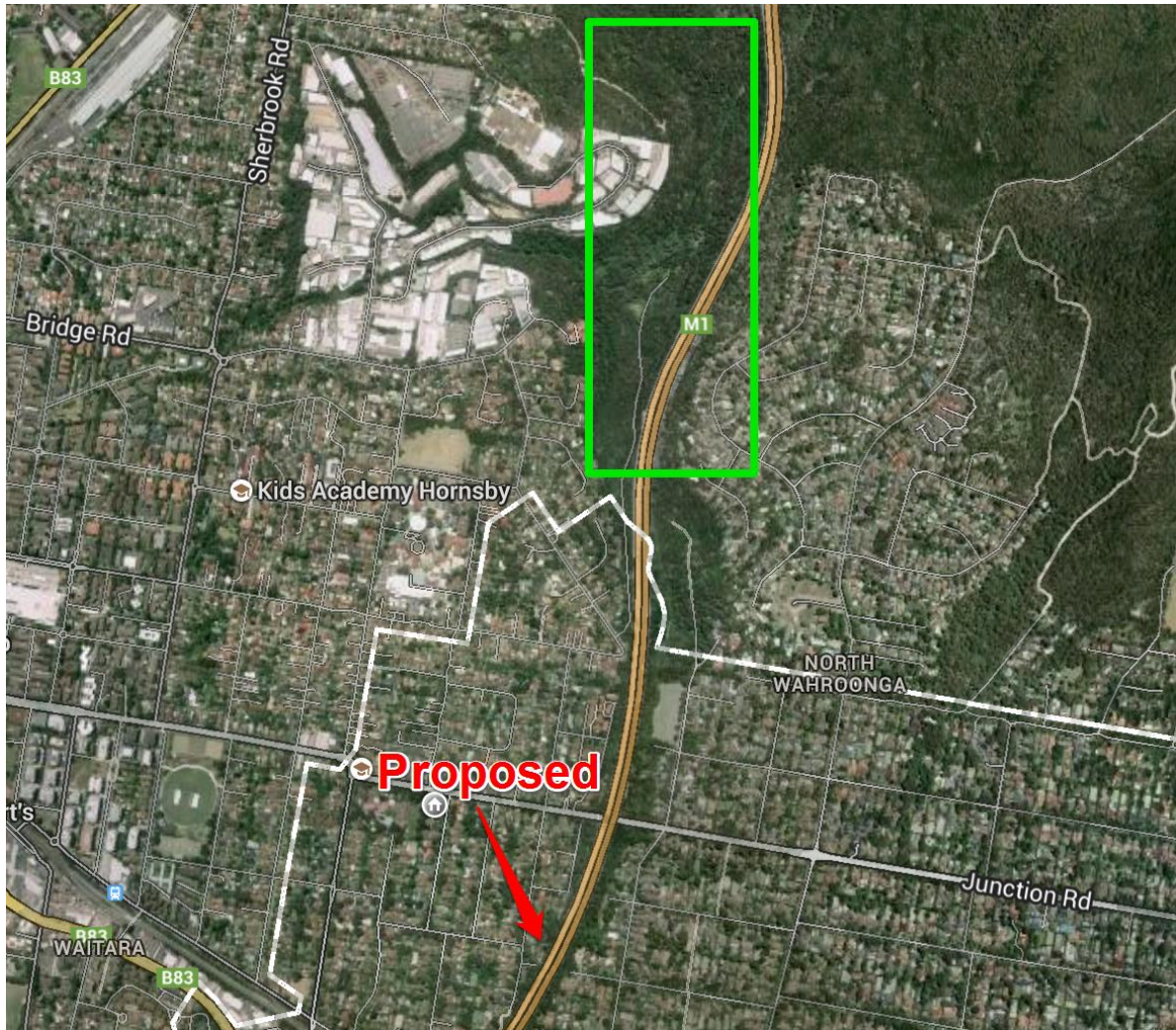
Please find below my submission in response to the exhibition of the EIS for NorthConnex.

Firstly I would like to state that I object to the project as described in the EIS, and share the high levels of concern that has been raised by the community. I request that these be considered and responded to by both NorthConnex and the Department of Planning.

Secondly I would like to endorse the CAPS submission, and request that the proposed alternatives are evaluated.

Concerns regarding the proposed NorthConnex tunnel project include:

1. An unsolicited proposal from a commercial developer has resulted in only one option being evaluated. This does not follow the normal government RFP process and no alternative designs have been made public for comment. The implication is that NorthConnex are acting in the best interest of their shareholders and not in the best interest in the community, and the design has been optimised to push traffic to other toll roads maintained by the same operators. Articles in the recent press cast doubt on how much impact this development in its current form will have on the traffic issues on West Pennant Hills Road.
2. Placement of the northern ventilation stack in the centre of a densely populated residential area in Wahroonga, where 9,300 school children will be exposed, as well as multiple aged care facilities, hospitals, businesses and homes. A simple look at a map will make it obvious that there are plenty of alternate sites where the ventilation stack and portal could be situated, away from such a densely populated residential area. To the north the M1 passes through large amounts of national park and the Hornsby industrial area.



3. The height and placement of the proposed northern ventilation stack in a valley in Wahroonga where there are often low wind speeds, which will result in poor dispersion and exposure of community to high levels of tunnel emission. The stated height of the stack only brings the exhaust level with the playing field at Waitara Public School, which my children are required to attend. The following images shows the relative height of the proposed northern stack vs the height of the Cross City Tunnel stack in Pymont. (Note that the Cross City Tunnel is orders of magnitude shorter)



4. The overall length of the proposed tunnel is dangerously long. As well as resulting in super concentrated emissions at two point sources, having a tunnel this long poses an unacceptable risk to drivers and staff when accidents happen. Alternate designs which allow for a series of shorter tunnels with multiple portals and ventilation stacks have not been evaluated. Included is an infographic showing a rough comparison with other projects in Sydney:



5. The proposed design causes an unnecessary gradient within the tunnel, meaning that heavy vehicle engines will be required to work harder, causing more pollution at the northern ventilation stack. Alternate designs have been proposed which allow for a flatter tunnel, eliminating this issue.

6. The EIS completely fails to address the issue of portal emissions. I am concerned about emissions from the proposed northern ventilation stack which are assumed to be zero in the study. Obviously no ventilation system is going to remove 100% of the polluted air as heavy vehicles exit from the tunnel, and the emissions from the proposed northern portal will sit at ground level in the valley where residential buildings are situated exposing the local population to pollutants. No plans for future portal emissions are included in the EIS so this will be difficult and costly to rectify when it is discovered after construction.
7. Multiple research studies that suggested that 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 state that air pollutants have prothrombotic and inflammatory effects on humans which cause the above health problems. Many local doctors and medical institutions have raised concerns about this within the local community.
8. I am 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. The stated NorthConnex numbers of diesel trucks seems inconsistent, and methods for monitoring and fining vehicles causing unreasonable levels of pollution remain unclear.
9. Air quality within the tunnel is also a concern, as it has been shown in the EIS to have exceed standards for pollutants such as NO₂, and haze from particulate matter at the ends of the tunnel. Much of this pollution will exit the tunnel portals and enter the environment at ground level.
10. I am 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 use of a coarse topographical model, especially around the ventilation stacks and portals
 - 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_{2.5}
11. I 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. This could include multiple stacks to more evenly distribute the pollution point sources along the length of the tunnel.

12. I believe that the justification for not providing filtration for the stacks is not based on serious trials by NorthConnex and has been dismissed due to the additional cost that this would incur.

To address my concerns I 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 tunnel design, ventilation stack and portals. This includes the CAPS submission and others.
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, covering both the stack and portal emissions, and not time boxed.
6. An independent review of the ventilation system is undertaken to ensure that NorthConnex's claim of no portal emissions is justified.
7. Portal emissions from NorthConnex in the future are banned, with defined remediation actions mandated if the current claims prove to be unsubstantiated.
8. The Submissions Report/Preferred Project be exhibited to allow the community to respond to the revised information contained in the report.
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.

Name: Michael Brown

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Signature:

A handwritten signature in blue ink, appearing to read 'M. Brown', followed by a period.