

WESTCONNEX PROJECT –EIS for M4 East Tunnel Project

AIR QUALITY – DIESEL EXHAUST EMISSIONS

The Westconnex EIS does not take into account the future impact on air quality in the surrounding environment resulting from motor vehicles and more importantly the number of diesel vehicles. Australia has more than doubled its number of vehicles in the past five years. The EIS makes the assumption that Sydney's air quality will decrease with improvements in fuel quality and fuel technology. The modelling has not taken into account the increase in diesel vehicles and adversely the health effects.

The health implications are significant. Diesel emissions contain PM 2.5 and PM 10 and a groups of gases known as NOX including the particularly toxic NO2. These gases have been linked to respiratory diseases including asthma, bronchitis, emphysema and cardiovascular diseases. In 2012 WHO reported 3.7 million premature deaths worldwide attributed to air pollution. The same year, IARC classified diesel emissions as a No.1 carcinogenic. In 2013, IARC classified diesel exhaust emissions as a cause of lung cancer. In July, London mayor Boris Johnson announced that NO2 had caused 5900 premature deaths in the city in 2010.

It is estimated 90 percent of NO2 exhaust emissions come from diesel vehicles. The bottom line is that diesel vehicles are the biggest and most deadly single source of air pollution within London and possibly other major cities.

The EIS is based on NEPM Air Quality Standards, which were developed and remain unchanged since 1998, which are outdated and under review. The US EPA maximum permissible level for NO2 is 100 ppb/hour as opposed to the NEPM guideline of 120 ppb/hour used in the M4 East Air Quality Report, August 2015.

My concern is the average NO2 readings taken at the five monitoring stations during October 2015.

The summary tables show an average NO2 concentration ranging between 35 ppb to 63 ppb/hour. As a qualified occupational hygienist, concerns are raised when an approach of any guideline or standard approaches 40 percent of a standard or guideline. Alarm bells start to ring.

These concentrations are already at 35 to 63 percent of the US EPA Air Quality standard for NO2.

The following factors outlined will contribute to an increase in levels of NO2 concentrations should the Westconnex go ahead:-

- Project sales and demand for diesel vehicles based on current sales.
- An increase in diesel vehicles on the M4 motorway (EIS projection).
- Substantial residential and commercial development in Sydney leading to an increase in diesel powered machinery on development sites and roadways.
- The substantial increase in development in the Parramatta Road corridor, leading to an increase in diesel vehicles and demands on diesel powered machinery.
- The massive increase in vehicular movement resulting from the Westconnex.

- Traffic choking at pinchpoints, starting off from traffic lights increase in diesel exhaust gases
- Traffic congestion and subsequent build-up of DPM in the tunnel environment.
- Unfiltered ventilation from stacks (impact on school environments and residential).
- The VW deception that diesel emissions are within vehicle emission standards.

IARC has found that there has been no decrease in the incidence of cancer in the past 50 years worldwide with international guidelines and standards constantly under review including lowering of exposure and environmental standards. We would therefore expect NO₂ air quality standard to be lowered based on current data.

The EIS projection modelling is predominantly flawed and misleading. The Westconnex should not proceed until a more detailed study and researched investigation has been undertaken into the impacts of diesel exhaust emissions on Air Quality from the implementation of the motorway in the Sydney region.

I have no doubt there will be a substantial increase in NO₂ concentrations and health related consequences resulting from NO₂ emissions as a result of the M4 Westconnex project.

Gary Conaty

A handwritten signature in black ink, appearing to read 'Gary Conaty', with a long horizontal flourish extending to the right.

Occupational Hygienist, MAIOH

The urban growth strategy projects increased development in the Parramatta Road corridor