NO WESTCONNEX: PUBLIC TRANSPORT SUBMISSION ON EPA & OEH
CONSULTATION PAPER FOR CLEAN AIR IN NSW

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INTRODUCTION

No WestConnex: Public Transport (NoWPT) is a coalition of community groups and individuals from across Sydney campaigning to protect our suburbs and environment from the WestConnex toll road, and in favour of active and public transport solutions. We are an incorporated association and a member group of the Nature Conservation Council of NSW.

No WestConnex: Public Transport was formed within days of hearing the NSW Government’s 2012 plans to create a vast system of toll roads across Sydney. We began by organising dozens of public meetings throughout Sydney – providing people with the information about the proposed toll road project and building a large base of active supporters.

As knowledge of WestConnex’s proposed toll road and their local impacts expanded, we were joined by new opposition groups: Annandale/Leichhardt/Lilyfield/Glebe, Ashfield, Haberfield, Croydon, Arncliffe, Rockdale, St Peters, Newtown, Kingsgrove, Rozelle and more.

We make this submission because over the last five years of campaigning against WestConnex, we have developed a thorough understanding of the contribution that car/truck-dependent planning is making to the lowering of air quality in the Greater Metropolitan Region (GMR).

We welcome the publication of the Consultation Paper for Clean Air in NSW published by the NSW EPA & OEH. We recognise that the paper is a first step in taking measures to improve air quality in NSW and that the paper identifies a number of strategies to improve air quality in the areas of industry, transport, residential and monitoring. Unfortunately however it appears that this first step has not taken into account the pressing need for New South Wales urban centres to move away from car dependency.

This submission focusses on the major contribution of motor vehicles to urban air pollution and the opportunity for improved transport policies to reduce transport-related air pollution (TRAP).

The consultation paper acknowledges the clear and robust scientific evidence that air pollution is responsible for a wide range of health effects, (ABC News (a) 2017), (WHO 2016), (Shi 2016). These adverse health effects include respiratory and cardiovascular diseases of both an acute and chronic nature, (WHO 2016). Notably, recent studies have also implicated air pollution as a causative agent in neurodegenerative disorders, (Kioumourtzoglou 2016).
In numerous studies from a large number of cities around the world, urban air pollution has been identified as being responsible for causing increased mortality (WHO, date unknown). It should also be noted that many health experts believe government estimates of the burden of disease from air pollution are underestimated. Despite some disagreement about the magnitude of the effect, it is well established that air pollution is a significant cause of mortality and morbidity, (WHO 2016). It is essential that public policy focuses more strongly on measures to improve air quality. Both diffuse sources (such as motor vehicles) and site-specific emissions need to be targeted for reduction.

It is acknowledged that the consultation paper covers many important issues. Unfortunately however it lacks a comprehensive perspective and does not reflect the whole-of-government approach necessary for effective strategies to improve air quality. A whole-of-government approach (including the Commonwealth/COAG) would identify the primary role of fossil fuel burning in creating air pollution. The extraction, distribution and combustion of fossil fuels is a major contributor to urban air pollution and to greenhouse gas emissions in NSW. Government strategy to improve air quality in NSW must address this fact.

In our submission we have made comments on the strategies/actions proposed in the NSW Consultation Paper which are most relevant to improving air quality by reducing transport related air pollution (TRAP). We have also made recommendations for actions to improve air quality which are not addressed in the consultation paper but which we believe are essential to improving air quality in NSW.

PART ONE: PROPOSALS FOR REDUCING TRANSPORT, ENGINE AND FUEL EMISSIONS IN THE CONSULTATION PAPER

The Consultation Paper identifies the following four actions as priorities for action to reduce transport related air pollution (TRAP).

DEVELOPMENT OF A NSW ELECTRIC VEHICLE STRATEGY (page 31 of the Consultation Paper)

Examine policies and incentives that could be adopted by the NSW Government to increase the uptake of electric vehicles

Agree. However, electric vehicles charged from coal fired power stations will only move the air pollution/greenhouse gases from the urban areas to the areas in the vicinity of power stations. It should also be noted that running electric cars on electricity generated from coal-fired power stations would not appreciably reduce transport-related carbon emissions.

Recommendation: the development of an electric vehicle strategy must include policies/actions which increase the proportion of renewable energy.

INVESTIGATION OF VEHICLE EMISSION STANDARDS FOR NSW GOVERNMENT CONTRACTS

Investigate emission standards for vehicles under NSW Government contracts
Agree. However, this proposed action could be much stronger. The Government should stipulate that EU emission standards should be met. There is no need to investigate or develop less stringent Australian standards. The development of Australian emission standards is totally unnecessary because cars are no longer manufactured in Australia. Cars imported from EU countries and USA should already meet the higher standards in force in the exporting countries.

MINIMISE NON-ROAD DIESEL EMISSIONS (page 32 of the Consultation Paper)

Further reduce diesel emissions from machines and locomotives
Agree. EU standards should be introduced. NB: the Consultation Paper acknowledges the fact that diesel particulates have been classified by the International Agency for Research on Cancer (IARC) as a Class 1 Carcinogen.

PETROL VAPOUR RECOVERY REQUIREMENTS IN REGIONAL CENTRES (page 32 of the Consultation Paper)

Reduce toxic emissions from service stations in regional centres
Agree. These requirements should also apply to mines and other facilities that store bulk fuels.

PART TWO: ISSUES THAT NEED TO ADDRESS IN CLEAN AIR STRATEGIES

The actions proposed in the Consultation Paper (see above) to address transport-related emissions are important but will not make much difference to the total amount of TRAP, especially when the projected increases in population are taken into account. Strategies need to be adopted which will reduce the number of vehicle trips and reduce the total number of kilometres travelled. These measures, together with more stringent emission standards and fuel quality standards, are essential to improve air quality.

NSW government agencies often claim that building freeways, tollways and tunnels will improve air quality. Initially in some cases, it may be true that smoother traffic flow reduces tailpipe emissions. However in reality, the benefits for air quality of any new road are soon eroded by congestion and increased traffic loads. We contend that despite considerable road building in Sydney over the last three decades, there has not been an appreciable decrease in TRAP.

Overall the NSW Government needs to be part of whole-of-government strategies (including the Commonwealth) to reduce the reliance on fossil fuels, both as a source of electrical power and for transport. We have identified the following issues which must be addressed to significantly improve air quality in the Greater Metropolitan Region.

Addressing traffic congestion

We submit that the inclusion in the Consultation Paper of WestConnex as a key initiative to address to traffic congestion is of serious concern and lacks the backing of expert opinion. The
claim that WestConnex will ‘remove through traffic from local roads’ is widely contested, as drivers will ‘rat-run’ through local roads to avoid tolls.

EcoTransit Sydney is a public transport advocacy group operating in Sydney. Their membership, which includes people from academic and technical backgrounds, have researched and published public and active transport alternatives to WestConnex which would service more commuters than WestConnex for a fraction of the price and a fraction of the air pollution (EcoTransit, 2013).

**Recommendation: Halt all works and associated works on the WestConnex toll road.**

**Recommendation: Review and implement public and active transport alternatives to WestConnex such as those proposed by EcoTransit.**

**Stop WestConnex**

Unfortunately, the WestConnex toll road exhibits all the features of a development pattern in NSW which will increase the number of vehicle trips and increase the total kilometres travelled and thus make a significant contribution to TRAP and greenhouse gas emissions. During the concept stage of planning the WestConnex project, the planners apparently did not consider more sustainable alternatives. Furthermore, there is no publicly available evidence that the planners foresaw or modelled the impact of increased motor vehicle use on air quality.

**Recommendation: Halt all works and associated works on the WestConnex toll road.**

**Develop targets for capping TRAP**

Air quality will not be improved if the vehicle fleet continually expands, notwithstanding proposed improvements in fuel quality and tailpipe emission reductions.

**Recommendation: Prior to the air summit, develop quantitative targets and timeframes to limit the number of vehicle trips and limit the total kilometres travelled in the Greater Metropolitan Region.**

**Land use planning and city design**

The Consultation Paper does not emphasise the fundamental importance of planning decisions in improving air quality. To some extent, the NSW Government has recognised the benefits of clustering new developments in close proximity to existing transport links. However, there are numerous plans for car dependent developments on the fringes of Sydney.

The newer outer suburbs are generally not well provided with health, education, public transport services or with opportunities for local employment. Residents living in these suburbs are forced to use cars to access all the basic services they need, thus increasing traffic-related air pollution. Similarly, many new industrial developments appear to be sited away from existing heavy rail lines and are dependent on motor vehicles for access and distribution of products. Sustainable land use planning would aim to minimise the dependence of new residential and industrial developments on private motor vehicles and trucks.
The planned densification of inner city and middle-ring suburbs does not include appropriate improvements to public transport, despite the majority of proposed new dwellings consisting of high-rise apartments.

It is of particular concern that the current plans for Badgerys Creek International Airport do not include rail connections for freight or passengers. The lack of rail connections highlights the inadequacy of the planning framework and the short-sighted decision making of the NSW Government and the Commonwealth Government.

**Recommendation:** The construction of public transport, pedestrian and cycleway infrastructure should be a higher priority than road building.

**Recommendation:** Planning decisions should aim to reduce the number of vehicles on Sydney’s roads and the total kilometres travelled by building and/or using public transport infrastructure.

**Recommendation:** All new residential developments must have public transport, footpaths and cycleways in place before occupancy. All residents must be within 1 kilometre of regular, frequent, reliable public transport. Car-dependent residential developments must not be approved.

**Recommendation:** All new industrial developments are serviced by public transport and rail freight connections.

**Recommendation:** Plans for Badgerys Creek should be revised to include heavy rail freight connections.

**Recommendation:** Plans for Badgerys Creek should be revised to include fast public passenger connections to Parramatta, Liverpool and Penrith.

**Health effects of living in proximity to tunnel ventilation stacks and tunnel portals**

The Consultation Paper avoids looking at the issue of ventilation stacks by generally defining the air quality issues on a very broad multi-regional scale.

The issue of stationary point sources is very important to those who are in close proximity to ventilation tunnel stacks and other point sources like industrial stacks or coal mines. By focussing on the GMR airshed, significant regional and local exposures can be overlooked.

There do not appear to be many comprehensive studies on the long-term health effects for residents living near stacks and portals. Two studies conducted in Sydney, one by Capon et al (2008) and one by Cowie et al (2012), focussed on short-term respiratory symptoms. To our knowledge there is no conclusive body of epidemiological evidence which shows that there are no adverse long-term health effects from living in close proximity to ventilation stacks or portals. It is of concern to us that the WestConnex website FAQ claims that living next to a stack does not present any additional risk to health. It is not clear how this conclusion can be reached when
there appear to be few, if any studies, which would support this contention. There needs be more long-term cohort studies where a range of health indicators are measured. Relevant indicators would include respiratory diseases, cancer, cardiovascular diseases and neurological diseases.

_Recommendation_: Long-term cohort studies with controls should be conducted. These studies should examine the full range of possible health effects caused or exacerbated by living in the vicinity of ventilation stacks and areas of high traffic density.

**Fuel quality standards**

Poor fuel quality makes a significant contribution to TRAP. Australia has relatively low fuel quality standards, (Age 2017, SMH 2017). Australia needs to adopt fuel quality standards at least equivalent to the EU or USA.

_Recommendation_: NSW works with the Commonwealth/COAG to adopt EU or USA fuel quality standards by 2018.

**Vehicle Emission Standards**

Australian vehicle emission standards are lagging behind the USA and the EU, (Age 2017, SMH 2017). It is noted that the Commonwealth has recently proposed to review the Australian standards. However, there should be no need to develop Australian standards, particularly now that the car manufacturing industry in Australia has been destroyed. It is also important to develop a robust system of field testing vehicles for compliance, (ABC News (b) 2017). Currently there are few (if any) regulatory systems in place for testing compliance with emission standards.

_Recommendation_: Australian vehicle emission standards must be improved to meet EU or USA standards (choose the most stringent).

_Recommendation_: Develop a compliance system for enforcing vehicle emission standards across all types of motor vehicles.

**Climate Change**

Transport is the third largest source of emissions in Australia and small vehicles make up 46% of all transport emissions (Climate Council, 2016). Around the world, transport is one of the key sectors being targeted for emission reductions, yet the NSW Government will be locking us into decades more car dependence by building WestConnex. NSW needs to be rapidly moving away from individual car use and towards mass, public transport in an effort to reduce pollution and carbon emissions.

_Recommendation_: Implement planning, transport and climate policies that seek to reduce the use of small vehicles.
Recommendation: Provide viable alternatives to driving by expanding access to public and active transport.

Trees and Urban Forests
Trees play an important part in the quality of air, particularly in cities and urban centres. A report published by the Nature Conservancy in 2016 studied the impact of nature as part of the solution to increasing air pollution across the world. Their study shows that trees help to absorb and minimise particulate matter. The report also notes that trees can mitigate ground-level ozone concentrations under certain conditions (Nature Conservancy, 2016, p.24).

This study is of note in New South Wales as the current government’s infrastructure boom and changes to land-clearing laws with the removal of the Native Vegetation Act are resulting in the mass culling of trees. The WestConnex toll road alone is causing the removal of thousands of trees across the city. This combined with the destruction of thousands more trees for other major projects such as the South East light rail and the metro will significantly contribute to the worsening of air quality in our cities and urban centres.

Recommendation: Reinstall the Native Vegetation Act

Recommendation: Halt all works and associated works on the WestConnex toll road

Recommendation: Plant juvenile or maturing trees to replace all the trees already destroyed for the WestConnex toll road.

Air Quality Summit
The Consultation Paper proposes an air quality summit later this year. We welcome this proposal. However, it essential that all stakeholders are represented. It is particularly important that a wide range of community stakeholders, including No WestConnex: Public Transport are invited to participate. It is also essential that planning and public transport experts, including EcoTransit, are invited to emphasise the importance of planning and public transport in improving air quality.

Prior to the NSW Air Quality Summit, the NSW Government needs to turn the proposed general goals outlined in the Consultation Paper into firm proposals. To be effective, the Summit needs clear proposals, with quantitative targets and time frames for implementation.

Recommendation: A wide range of community groups, including No WestConnex: Public Transport and public transport experts, are invited to the Clean Air Summit.

Recommendation: The EPA & OEH should develop firm proposals to be presented at the Summit. These proposals should include quantitative targets with timelines for significantly reducing TRAP. Targets should also be proposed for reducing the number of trips and the number of kilometres travelled in the GMR.

Measuring progress
The Consultation Paper outlines an evaluation plan which is ‘committed to continuous improvement of the air quality management framework’. In its current format of evaluation, reporting and ongoing review there does not appear to be any point during which community stakeholders are invited to participate in this process.

**Recommendation:** Community stakeholders are invited to provide feedback and consultation during the evaluation, reporting and ongoing review stages of Clean Air for NSW initiatives.

**Tax incentives for motor vehicle use**

The taxation system encourages the use of motor vehicles by subsidising diesel fuel and giving tax concessions for cars in salary packages. Tax incentives were retained to support a declining local car industry. The demise of the local car industry renders these incentives unnecessary and counterproductive to both air quality and to Australia’s balance of payments. These tax concessions encourage the use of motor vehicles and are not necessary.

**Recommendation:** NSW should work with the Commonwealth/COAG to remove subsidies for diesel fuel.

**Recommendation:** NSW should work with the Commonwealth/COAG to remove tax incentives for the private use of work vehicles and salary packaging of private vehicles.

**CONCLUSION**

No WestConnex: Public Transport welcomes the endeavours of the NSW Government to address the serious issue of air quality in our state. This submission has outlined our concerns and suggestions in response to the consultation paper. Of particular note is the concerning inclusion of the WestConnex toll road as an initiative to improve air quality when it is clear that the project will induce further traffic, enhance car dependence and therefore contribute to worsening our air quality. NSW should move away from car-dependent planning and fast-track public and active transport infrastructure.
REFERENCES


Capon et al Investigating health effects in a community surrounding a road tunnel stack – a cross sectional study. Environmental Health 2008,7:46


World Health Organisation. WHO releases country estimates on air pollution exposure and health impact. New interactive maps highlight areas within countries that exceed WHO air...

World Health Organisation. Date Unknown. Air Quality & Health Questions and Answer.
http://www.who.int/phe/air_quality_q&a.pdf?ua=1

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