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NSW 2076

Director Infrastructure Projects
Department of Planning and Environment
Application number - SSI 13_6136
Major Projects Assessment
GPO Box 39 Sydney NSW 2001

1 September 2014

Dear Sir or Madam

Re: EIS Submission - NorthConnex M1 - M2 Project

Our family of 2 adults and 3 young children lives on Carrington Rd in Wahroonga. Wahroonga is currently distinguished as being predominantly residential, but is also home to a number of well recognized schools. It is a vibrant community with a leafy, healthy nature that encourages outdoor activities such as walking and cycling. Wahroonga Park is a well utilized local facility. We moved here approximately 5 years ago in order to have some more space, enjoy the cleaner environment and send our kids to the local schools.

We were dismayed to hear recently that it is proposed, as a part of the NorthConnex M1 – M2 Project, to place a ventilation stack almost in the heart of our community. We understand that the stack is intended to concentrate the vehicle emissions from over 9 km of road and discharge them in the middle of our suburb. Further to this, the proponents expect us to believe that the removal of pollutants from Pennant Hills Road will be a major benefit to residents in that area, but that the concentration and discharge of these same pollutants over a residential suburb will have no detrimental effect to those residents. This is just not believable.

The NorthConnex project is big business. It is put forward as being needed, but is in fact driven as a money making enterprise. The proponent's concept of a successful project is one that maximizes revenue for the minimum investment and they are unconcerned with the impact on third parties except as required to get their project across the line. The proposal is based on a minimum cost approach and the EIS document has been put together merely to support this. It seems to make little effort to determine the actual impact on the local community and in fact attempts to obscure it by using measurements taken many miles away, dispersion modelling that seems unrelated to the situation and presenting misleading statistics.

We had expected that the EIS would be an independent document developed to identify the issues and recommend options to mitigate or eliminate them, but it becomes quickly apparent to the reader that the purpose is purely to support the project as proposed. There is never any finding that more should be done or alternatives considered. The document uses intentionally misleading statistics to obscure the true impact of the project and the positive results held out are totally dependent on what the proponents 'would do' and the hypothesis that vehicle emissions will reduce over time anyway.

It is not realistic to expect that individual citizens would be able to compete with big business in an argument of this type. The proponents have clearly paid a lot of money to have a supportive EIS written and we don't have the funds to pay alternative experts to develop the opposite opinion, (although I feel sure that it could be done given the time and money). We must therefore rely on the Department of Planning to treat the EIS with the cynicism that it deserves, make their own enquiries for as long as it takes to determine the facts and enforce a more rational approach.

Given that the tunnel is significantly longer than others in Australia to date and the uncertainty around the impacts of pollution generally, it seems likely that there will be at worst, significant impact and at best the impact would be uncertain. In this situation, the government should clearly be cautious in its approach. There seems to be a number of options that would reduce the chances of harm to local residents. Two of the most obvious are:

1. Reject this proposal in favour of one that discharges the emissions in an industrial area.

   We believe that there is a proposal available for this and while more expensive up front; it is likely that the reduced risk and other long term benefits will make it a more cost effective project if a net present value comparison is made taking all factors into consideration.

   This seems to be the preferred and most sensible approach.

2. Add ventilation stacks at regular intervals along the tunnel

   This would at least provide some equity in that pollution levels would be relatively consistent between the before and after states across all areas

We know that even with the best of intentions, all of the things that they say that they 'would do' are unlikely to happen and other unanticipated events will happen. It is therefore very likely that the residents of Wahroonga will be impacted much more than anticipated by the EIS document. It should also be remembered that whatever is put in place now will be around for a very long time and that if it is found to be wrong, the cost to fix it will be much, much greater than the incremental cost to do it correctly in the first place.

I feel sure that if those that will reap the benefits of this proposal, i.e. shareholders of NorthConnex, were to be held forever liable for any detrimental impact to those living, learning and playing in the area of their emission discharges, then they would probably want to adopt a different approach anyway.

We therefore urge the Department of Planning to reject this 2nd rate proposal and ask for one that does not risk the health and well-being of decent Australian citizens and residents.

I have listed more specific concerns below in no particular order.

1. Unsolicited Proposal

   The EIS seem to be at pains to point out that this is an unsolicited proposal.

   It's not clear why this is important, but we would suggest that if a project is supposed to be of 'State Significance' as this one is stated to be, then the State would solicit proposals from interested parties and then review them for the best option, taking all factors into consideration. This process would encourage competiveness and innovation in the proposals and ensure that all options could be considered.

   It would be ridiculous for the State to accept the first 'unsolicited' proposal that comes along.

If you are being unreasonably pressured to accept it, then there are clearly corrupt practises in play and these should be reported to ICAC. The extraordinary confidence of the NorthConnex team and obvious lack of concern during community presentations seems to indicate that something is wrong. It is hard to see how such a ridiculous proposal could get off the ground otherwise.

2. Citizen's Rights

[redacted]

As one of the families that would be adversely affected, we would like to put forward that this is definitely not ok. We all have the right to clean air and not to be affected by other people's pursuit of profit.

There are clearly alternatives that will serve the needs of the community better and have other long term benefits. It is the responsibility of the Department of Planning and Environment to evaluate the different options and select the one that has the best overall result for the community and does not result in poisoning anyone.

It should also be remembered that this pollution is being forced on people in and around their homes and schools. They don't realistically have the option to walk away from it unless they can afford to sell up and move somewhere else (and there are already signs of people doing this). The EIS talks about other pollutants such as open fires, smoking, driving, etc., however, in most cases people make a choice to subject themselves to these effects. In the case of a ventilation stack being positioned in a residential suburb, residents will get the pollution whether they like it or not.

3. Modelling of Impacts to Human Health

The possible impact to human health should be the most critically examined part of the project.

The proponents don't appear to have made any effort to do a realistic analysis of the possible impact to the health of residents in the vicinity of the ventilation stacks and portals. They have used meteorological data from the airport and determined base levels of pollutants from locations that are miles away from the position of the ventilation stack. In addition to this, they have obscured the impact of the project by including long term averages that include dust storms and bush fires.

The impact of the project should be determined on a 'normal' basis, i.e. what is the normal level of pollutants at the proposed ventilation stack site today and what will be the impact from the project. The proponents stated during community feedback sessions that they haven't had time to do these measurements. This is obviously not the case and it is clear that the only reason for not disclosing these measurements would be that they do not support the project.

Further to this, impacts should be stated as a percentage of current levels in order to correctly understand the increased risk to health. Instead of this, the EIS only states the impact as a percentage of maximum allowable values that are over 10 years old. You'll notice also that the document never makes a direct comparison between current levels of pollutants and the new levels after the project based on the model. This is misleading and deceptive.

4. Material Balance

Figure 38 on page 159 of the Air Quality Technical Working Paper (and others) shows large areas of significant reductions of particulates along Pennant hills road, e.g. -0.38, -1.25 and -2.5 ug/m^3. These reductions are offset against an apparently small increase of 0.4 ug/m^3 in the areas of the Northern and Southern stacks. Common sense says that overall particulates would not be significantly reduced and may in fact be increased by the proposal as more traffic takes the more convenient route (otherwise, why do it at all). The EIS appears to leave a large gap in its explanation of where the pollutants go, i.e. they will not just disappear. We therefore believe that the increases around the ventilation stacks have been greatly understated and all aspects of the EIS (and in particular the human health assessment) should be re-examined with correct values for the increase.

5. Averaging

Much of the potential impact of the project is obscured by the practise of averaging values over 24 hours or even a year, e.g. the presentation of the peak incremental contribution to particulates on page 161 of the technical working paper: Air Quality is given based on 24 hour and annual averages. The numbers need to be brought into the open so that the Department and the public can know the extent of the worst outcome. It is important that people (as opposed to 'receivers') in any location should understand the amount of incremental pollution that they will be subjected to over and above the normal level for that location at any given time of day.

Once known, then the actual likely impact to human health can be more accurately determined.

6. Effect of Pollutants

The EIS focuses on several pollutants that are known to have harmful effects. However we are a long way from understanding the full impact on human health of all the components of vehicle emissions and there is more research under way in several areas, e.g. it was not that long ago that it was found to be necessary to remove lead from petrol. We should therefore not assume that the 'known' toxins mentioned are the only source of harm and this knowledge should drive a very conservative approach when determining the placement of concentrated pollutants.

A tunnel provides a great opportunity to separate people from this risk. It is an unreasonable risk and just plain stupid to concentrate pollutants and dump (or disperse) them in a residential area. We really couldn't say today the full extent of the harm that we might be doing.

Other support for the worlds changing views on vehicle emissions and the misleading nature of EIS is as follows:

- Australia lags other countries in its application of emission standards, e.g. Euro 6 requirements commenced in Europe in January of 2013 and are comparable to limits implemented in the US in 2010. These will not be implemented in Australia until 2017 or 2018. Levels of NO_2 in the new standards will be less than 25% of those currently allowed.
- The EIS assesses NO_2 emissions against the NSW standard of 246ug/m^3 and which is more than 10 years old and finds this to be 'similar' to that specified by the US EPA of 189 ug/m^3, i.e. a difference of 30% can be considered 'similar' in their view in order to support the project.
- Project contributions are measured as a percentage of the standard rather than the actual increase, e.g. for NO_2, it is assumed that the current background level is around 20 ug/m^3. We are told that the maximum

concentration from the project will be around 70 ug/m^3, but this is ok as the project is only contributing 30% of the NSW criteria. There is no mention of the mathematical fact that (at least for periods of time), pollutant levels will be increased by 450% and susceptible people are therefore 4.5 times more likely to be affected by it. It seems that this would be unacceptable in any other 1st world country, but is somehow ok in Australia.

- A Department of Infrastructure and Transport document lists ozone as a significant pollutant from vehicle emissions in its own right and causes '*Mortality due to respiratory and cardiovascular diseases; hospital admissions due to respiratory diseases; decreases in lung function*'. This EIS document, on the other hand, would have us believe that ozone is only important for its role in the creation of NO_2.
- The same Department of Infrastructure and Transport document points out that vehicle emissions account for roughly 60%of NO_2 pollutants in Australian cities. There could be no possible justification for the concentration of this from 9 km of road and dumping over a residential suburb

7. Mitigating measures

The justification for not implementing mitigating measures is quite extraordinary. According to the EIS, the fact that there are other sources of pollutants makes it ok for NorthConnex to also pollute and it also suggests that it would be better for the other sources to be cleaned up instead of stopping NorthConnex from creating more pollution.

This kind of childish logic does not belong in 2014. Once it is understood that certain pollutants can cause harm, it is imperative that any further sources be restricted in addition to having existing sources stopped.

Nevertheless, we do not advocate for mitigating measures as it would be too easy to turn them off or not operate them properly. In addition, there are many examples from other tunnels where equipment breakdowns or other reasons have caused emissions that were never supposed to have happened according to their EIS's. It should always be remembered that the proponents are acting for their own benefit and not for the benefit of the public and there is little downside for them to not do what they say they will do.

We would therefore urge the Department to ask for (and only consider) proposals that discharge the pollutants in non-residential areas.

8. Lost Opportunity

One of the recognised benefits of tunnels is, as previously mentioned, that they provide the opportunity to collect pollutants from vehicle emissions and either treat them or discharge them in an area away from people. This project proposes instead to collect them and dump them in a residential suburb. Although not stated in the EIS, it can be derived that in the best case scenario presented, the residents of this suburb will be 4.5 times more likely to suffer from the impact of this pollution than they do today. It is clearly not best practise and there are alternatives readily available that do achieve this.

Realistically, we will only get the opportunity to make a correct choice once. Once the tunnel is built, the incremental cost to fix the obvious error will be prohibitive.

9. Net present value (NPV) approach

   We strongly request that this project be evaluated against other options and that some sort of rational evaluation criteria such as net present value be used in the evaluation.

   Further to this, it is appropriate for the government to include such costs as impact to the environmental, potential impacts to the population health, (i.e. not just death, but also cancer, asthma and other potential health impacts), loss of capital value of people's homes and any other relevant costs.

   We feel sure that if the economic impact to NSW or Australia as a whole is considered, i.e. not just NorthConnex, then it will become clear that the project does not make sense as proposed and that there are other better alternatives.

10. Sensitivity Analysis

    Much of the literature on the impact of vehicle emissions from tunnels emphasises the uncertainty or lack of data. In addition to the built in uncertainty, the EIS makes many assumptions and introduces more uncertainty by using data that is not relevant to the local area. Also our experience from other tunnels in the Sydney area shows that the operators either do not or are unable to do what they say that they 'would do'.

    Given all of this, it is important that a sensitivity analysis be done against various criteria to understand the impact of possibly incorrect assumptions, poor models and failure to operate correctly. The impact to human health should be considered based on a realistic understanding of what actually happens using the sensitivity analysis to extrapolate from the best case presentation provided here.

11. Experience

    Although studies around the impact of tunnel ventilation stacks are either inconclusive or suggest that they are not measureable, it is possible to find people that have made the choice to move away from the stack. (Note that these people would not have been included in surveys on the effects). One of these people that moved away from the M5 East tunnel stack reported an immediate improvement in health. "*My morning sneezing fits have stopped would you believe! My eyes are improving also."* They also found visible evidence of the pollution while living near the stack "*I was absolutely shocked as we were dismantling our house to find the black soot in places where you would not even expect dust to be to get in like tightly sealed display cabinets which were hardly (if ever opened).*"

    This seems to provide clear evidence of the impact of pollution from tunnel ventilation stack and it should be remembered that the NorthConnex proposal is for twice the tunnel length and therefore twice the pollution of the M5.

12. Community Impact

    Regardless of anything else, I'm sure that if this project goes ahead, we will not be the only people that will not want to risk our health and our children's health by having them live and learn in an area affected by such concentrated pollutants. We will sell up and move on regardless of cost and our children will not attend Knox and Abbotsleigh as planned. It is likely in this age of environmental awareness and concern for health, that many others would do the same.

I expect that there would be an enormous effect on the community and local schools and this will be an overall detriment to NSW.

Please contact me on Ph: 02 9489 0059 or email: r.hayman@hwcnet.com.au for any further explanation required on the above points.

Yours Sincerely

Richard Hayman