

Inquiry into the health impacts of air pollution in the Sydney Basin

Response to Questions on Notice – 11 September 2006

- 1. Is the Department aware of the Report in 2003 by the Bureau of Transport and Regional Economics where in Table 10 it refers to the estimates vehicle pollution induced deaths and road fatalities in the year 2000? The pollution induced deaths range from 339 to 762 (average 550/yr)? (By comparison road fatalities are 267).**
 - a. If the Department is aware of this study, what is it doing to reduce the deaths?**

Yes, the NSW Department of Health is aware of the BTRE study – a more complete report than Amoako 2003 (which was a preliminary report of the BTRE study). It was referenced in the NSW Government submission (BTRE 2005).

As described in the submission, the Department works with other agencies, through Action for Air to reduce exposure to air pollution in the Greater Metropolitan Region. The Department also assists health providers and sensitive members of the community to reduce the adverse effects of air pollution through chronic care action plans and air pollution health alerts.

- 2. Will the Department of Health produce evidence on how many deaths are caused by air pollution with a breakdown of what are the sources of this pollution, and if not, why not?**

The Department of Health estimates that the effects of air pollution in Sydney result in an additional 600 – 1400 deaths per year. These estimates are derived from observed associations between concentrations of particulate matter pollution and mortality; individuals whose deaths are caused solely by air pollution are unlikely to be identifiable. Estimates of the relative contribution of sources of air pollution to mortality could be derived from the NSW DEC inventory of sources of PM₁₀ in the Sydney basin as provided in Appendix 3 of the NSW Government submission.

- 3. Given the admission of Mr Chris Eiser in the hearings of 11/09/06 that the level of PM_{2.5} is rising, as is the population affected, does the Department concede that deaths and mortality due to air pollution are likely to be rising even if Dr Sheppard is right in her statement that “our pollution levels have, in the main, dropped”?**

The Department's review of Hansard indicates that Mr Eiser did not report that PM_{2.5} concentrations are rising.

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- 4. Does Dr Sheppard's statement not refer to the absolute tonnages of pollutants rather than the particle counts and does the Department concede that the bioavailability of the pollutants is increasing?**

The statement regarding pollutant levels dropping refers to monitored concentrations of criteria pollutants, as these are the only pollutants for which there is sufficient information to comment on trends. As stated in the NSW Government submission, concentrations of lead, carbon monoxide, sulphur dioxide and nitrogen dioxide have dropped. While particulate matter concentrations have improved since the 1970s this trend has levelled in the past decade. The evidence available to the NSW Department of Health for bioavailability of criteria pollutants is limited to lead and shows that bioavailability of lead has also decreased.

- 5. Dr Vicki Sheppard commented at the inquiry that the health impact on the Lane Cove Community will be of "no significant increase" when the Lane Cove Tunnel is opened.**
- a. Was this determination made on the RTA traffic estimates of 58,000 vehicles (1999/2000), 119,000 (2001) or 172,300 (2003)?**
 - b. Please provide the data used in the assessment that concluded that there would be "no significant increase".**

Dr Sheppard's comment was that there was no significant increase in exposure to pollutants associated with the tunnel emissions predicted for people in the Lane Cove area. The NSW Department of Health was provided with estimates of community exposure to pollutants associated with the Lane Cove Tunnel development both during the initial assessment in 2001 (Holmes Air Sciences) and for the verification report in 2005 (Graeme Ross). On both occasions worst-case scenario modelling indicated that any contribution of stack emissions to community exposure to pollutants would be minimal.

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- 6. In the absence of a National Environment Protection Measure (NEPM) for carcinogens acetaldehyde and 1,3-butadiene, what value does the proposed modelling have to prevent further harm?**

For carcinogens the emphasis in a risk assessment is in minimising any exposure. If health guideline values are needed, in the absence of Australian values, other sources of guidelines such as the World Health Organization or USEPA are used.

- 7. In relation to figures provided by NSW Health to the Committee of the number of deaths that are associated with pollution (600-1400), please cite the source of this information.**

This information is from the Department of Environment and Conservation 2006 Report: *Air Pollution Economics. Health costs of air pollution in the Greater Sydney Metropolitan Region*, Table A.2.

- 8. In 2003 NSW Health was aware that the RTA was refusing to implement its recommendations regarding identified health risks in the M5 East tunnel. NSW Health sought legal advice and was advised to exhaust all normal channels to influence RTA before acting on the powers available to it. Three years later, we are told that NSW Health is still waiting on the RTA to finalise a 2004 study about NO₂ in the tunnel, which NSW Health seems to have little influence over. Meanwhile traffic (and pollution) levels have increased.**
- a. How long does the public have to wait for normal channels to be exhausted, and why?**
 - b. What is the point of advice that has no teeth and is not immediately implemented?**

Information to assist the community to mitigate air pollution risks in road tunnels is available through a variety of channels. NSW Health will continue to collaborate with the RTA and other agencies in finalising a considered approach to managing nitrogen dioxide risks in road tunnels.