**Submission No 9**

# INQUIRY INTO HEALTH IMPACTS OF AIR POLLUTION IN THE SYDNEY BASIN

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**Subject**:

**Summary**

PA 6376

Mr S Frappell
General Purpose Standing Committee No 2
Parliament House, Macquarie Street
SYDNEY NSW 2000

31 July 2006

Dear Mr Frappell

**Inquiry into the Health Impacts of Air Pollution in the Sydney Basin**

The attached submission to the Inquiry is made in response to the invitation from the Hon Patricia Forsythe, Chair of the Standing Committee.

In 2005 we issued a performance audit report titled 'Managing Air Quality: Department of Environment and Conservation'. In the attached submission we highlight some items from the report that seem particularly relevant to the terms of reference of your inquiry. We have also attached a copy of the original audit report.

Should you wish, I would be happy to discuss any aspect of the report with you.

Yours sincerely

R J Sendt
Auditor-General

Encl

**Legislative Council Standing Committee No 2:**
**Inquiry into the Health Impacts of Air Pollution in the Sydney Basin**

**Submission by the Audit Office of NSW**

## Introduction

In April 2005, the Audit Office tabled a performance audit titled *Managing Air Quality: Department of Environment and Conservation*.

The report made a number of recommendations on managing air pollution in NSW. Appendix 1 of the report includes responses to the recommendations from the Department of Environment and Conservation (DEC), the Roads and Traffic Authority (RTA) and the (then) Department of Infrastructure, Planning and Natural Resources (DIPNR). The report therefore provides an overview of the thinking on many issues of air pollution in the Sydney basin at the time of the audit. This may assist the Standing Committee as it focuses on the current situation.

The report is available on the Audit Office web site www.audit.nsw.gov.au.

## Comments on specific Terms of Reference of the Committee

In the following sections, we outline some aspects of the audit report that appear particularly relevant to the Standing Committee's terms of reference (a), (c), and (e). The report also provides comment on many other aspects of air pollution.

## (a) hotspots where pollution is concentrated

The report discussed the ventilation of road tunnels, particularly the M5 East (see Report Section 3.3).

The M5 East tunnel was the longest road tunnel in Australia and one of the longest urban tunnels in the world. The air quality requirements for the tunnel were set out in the approval and the consent conditions. The M5 East emissions were considered too small to require licensing of the tunnel as a point source of industrial pollution.

At the time of the environmental assessment of the M5 East tunnel, there were no published and agreed guidelines on air quality for road tunnels. It was possible that technical developments and improved understanding of the health impacts of vehicle pollutants would change air quality requirements for tunnels over time. It was not known whether any future State air quality requirements would apply to existing tunnels. However, there was no provision in the M5 East contract for the approval or consent conditions in the contract to be tightened over time.

Licensing road tunnel operations as a point source would allow retrospective changes to requirements for ventilation. However, licensing could have significant implications for the cost of major transport infrastructure projects in terms of who bears the costs of conforming with developing or changing goals for air emissions (Case study of the M5 East Tunnel - Report Chapter 3 Section 3; the RTA response is in Appendix 1, particularly in the second paragraph on page 73).

## (c) the causes of air pollution in the Sydney basin over the past three decades

The audit examined the NSW Government's achievements in improving air quality in the Greater Metropolitan Area (Sydney, Newcastle Wollongong).

It did this by examining the success to that time of a Government plan, *Action for Air*, to improve air quality, and a related plan *Action for Transport 2010*.

*Action for Air* provided a framework for managing air quality over 25 years to keep air pollution levels of six pollutants below six maximum permissible concentrations (goals) and one advisory goal. These goals had been introduced by the National Environment Protection Council (NEPC) in 1998 (see Report Section 1.2). They were not specifically stated as goals for public health, but many had been set because of public health considerations.

At the time of the audit, NSW had met four of the six national goals ahead of the 2008 target date. It had not, and was not likely to meet the targets for ozone and particulates by 2008. Transport vehicle emissions were the largest contributor to ozone formation (see Report Section 1.1, 1.2 and 1.3). Diesel fuels produced disproportionably high amounts of fine particulates (see Report Section 2.2).

The audit also examined toxic substances. These are gaseous, aerosol or particulate pollutants. They were regulated overseas but not in Australia (see Report Chapter 4).

The audit found that scientific understanding of toxic substances was still evolving; management processes were still developing worldwide and there were no national standards. Most air toxic levels were low, well below then international standards. Two organic compounds – benzene and 1,3 butadiene - were approaching international standards. Also, polycyclic aromatic hydrocarbons were in the vicinity of standards in the Sydney CBD and above standards in large regional centres.

The sources of air toxic substances were very diverse, but vehicles on the road, particularly diesel powered vehicles, were by far the largest source of air toxic substances in NSW.

DEC was proposing to manage air toxics within the Air Toxics National Environmental Protection Measure (NEPM) framework (see DEC response to Chapter 4, Appendix 1, page 69 of Report).

*Action for Air* also recognised that greenhouse gases and many of the pollutants discussed are often emitted from a common source such as vehicles or industries. They may interact in certain conditions; leading to some combined effects that can further affect urban air quality (see Report Section 1.6 page 18).

## (e) the financial impacts of air pollution on the NSW health system

We looked at addressing this issue in the audit but did not proceed because of a lack of reliable financial data.

## Additional information from the investigation

NSW exceeds the ozone goal more than any other Australian jurisdiction (see Report Section 1.3).

It is still not understood how long-term exposure to pollution affects us, or the cumulative effects of pollutants. This is why we recommended that NSW Health be more involved in air quality (see Report Section 3.2).

Australia has the highest rate of asthma sufferers in the world, with 20 per cent of people affected.

About 43 per cent of people aged 20 to 44 years in Australia suffer hay fever and nasal allergies, i.e. 2 in 5 people. The statistics for NSW are the same.