

Report 03.473
Date 21 August 2003
File TP5/3/2

Committee Regional Land Transport
Author Karen O'Reilly, Transport Planning Analyst

Mortality due to motor vehicle air pollution in the Wellington Region

1. Purpose

To provide the Committee with an updated estimate of the annual mortality due to vehicle related air pollution in the Wellington Region (**Attachment 1**).

2. Background

In 2002 the Ministry of Transport published a report, by NIWA, which estimated the deaths from air pollution in the Wellington Region to be 79, of which 56 were considered to be due to vehicle emissions. Due to the older age profile of these deaths, compared to the road toll, discounting was applied to give the road toll equivalent of 28 deaths in the region.

The actual road toll in 2001 was 30 for the Wellington Region. Thus, the NIWA report indicated an effective doubling of the number of vehicle related deaths.

3. Comment

The NIWA calculation was assessed and reproduced to include several evaluated improvements such as:

- Updating the ambient air quality concentrations to include the latest Greater Wellington monitoring results
- Updating the population data to 2001 figures
- Including the Kapiti and Wairarapa populations in the calculation
- Using the vehicle contribution to air pollution denoted by the Greater Wellington emissions inventory
- Calculating the mortality for infants as well as adults
- Determining the discount figure based on life expectancies and individual age profiles for each cause of death

The updated mortality calculation estimated the total number of air pollution deaths in the Wellington region to be 102 (including infants), of which 48 were calculated to be due to vehicle pollution. After discounting for the differing age profiles, the road toll equivalent value of vehicle related air pollution deaths was 8.

Thus, for 2001, the actual road toll for the Wellington Region was 30, and the recalculated equivalent vehicle related air pollution deaths was 8.

The reduction in the number of equivalent deaths, from that reported by NIWA, signals an improvement in the assumed Wellington Region base case. Coupled with the Government's current objective of controlling vehicle emissions at the national level the future mortality impact of vehicle air pollution in the Wellington Region should remain relatively low.

The changing status of air quality and corresponding mortality impact will be assessable with the current, and soon to be expanded, ambient monitoring conducted by the Greater Wellington Regional Council's Environmental department.

4. Recommendations

That this report be received by the Committee.

Report prepared by:

Report approved by:

Report approved by:

Karen O'Reilly
Transport Planning Analyst

Joe Hewitt
Manager Access Planning

Dave Watson
Divisional Manager Transport

Attachment:

1. "Mortality due to motor vehicle air pollution in the Wellington Region" Technical Report