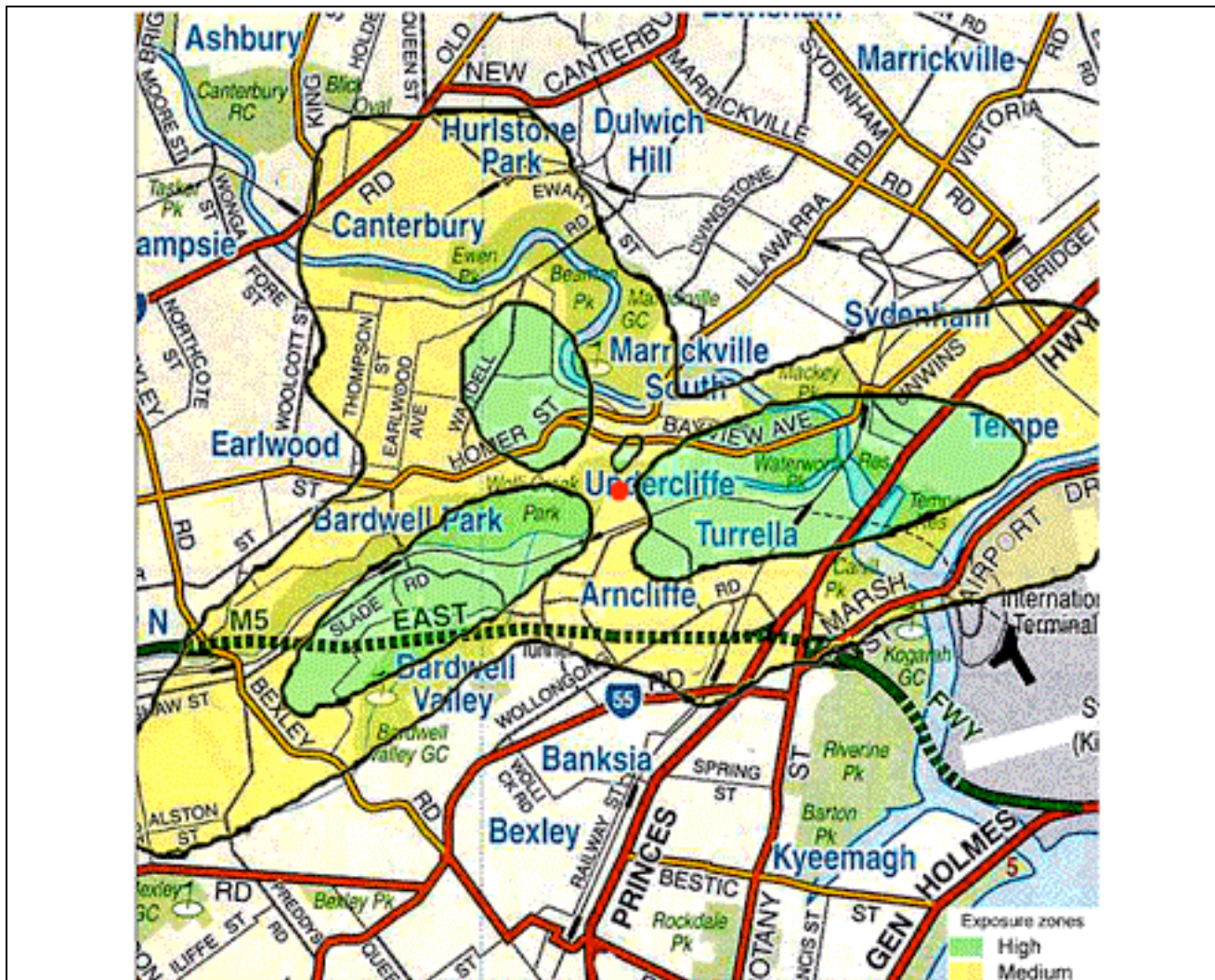


## Pollution Impacts from the M5 East Exhaust stack

Maps covering the same 6km<sup>2</sup> area of Canterbury, Rockdale and Marrickville and showing the impacts of pollutants from the M5 East stack as measured by the CSIRO from monitoring data during 2002-2003 for the 2004 NSW Health study "Investigation into the possible health impacts of the M5 East Motorway Stack on the Turrella community - Phase 2"

The CSIRO air quality studies are available in Appendix A (3 parts) of the study at <http://www.health.nsw.gov.au/pubs/i/investigation040055.html>.

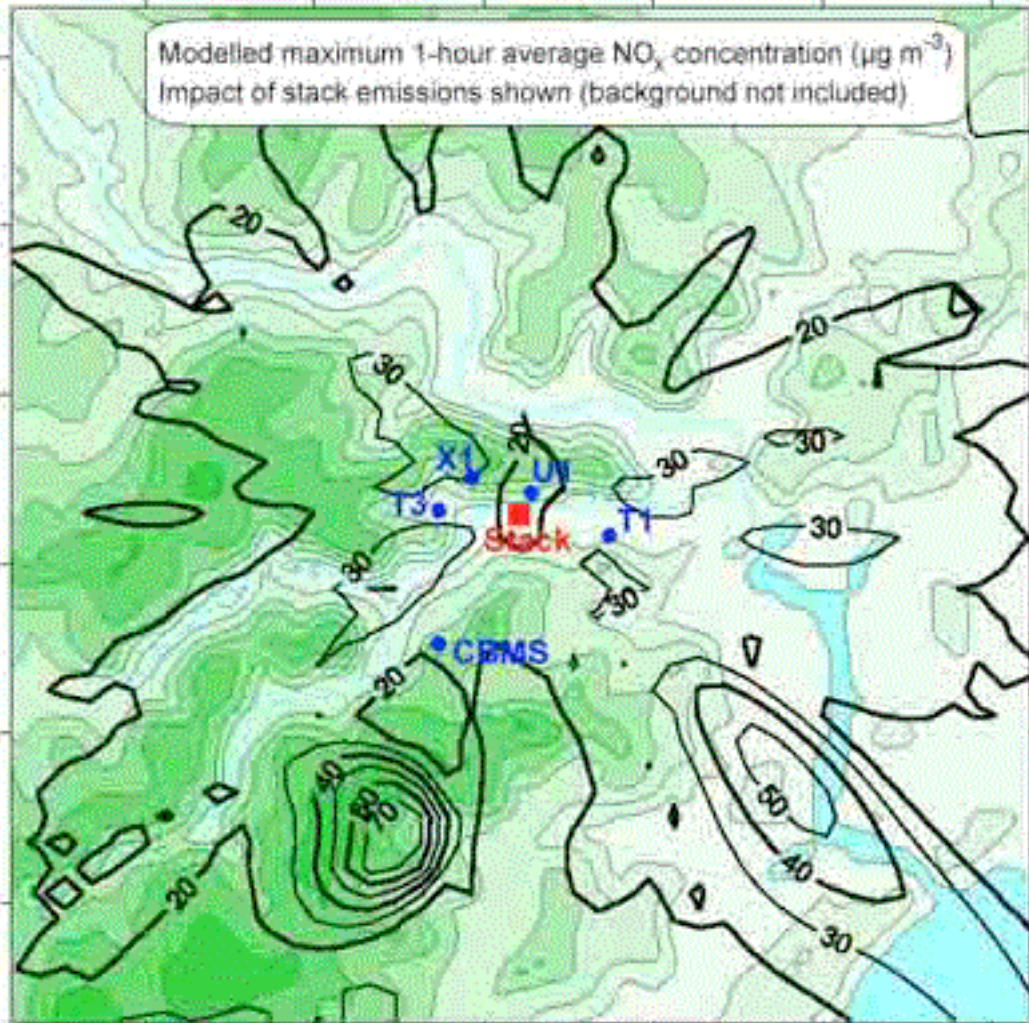


This map shows the annual average 'exposure zones' used in the study, as identified by the CSIRO.

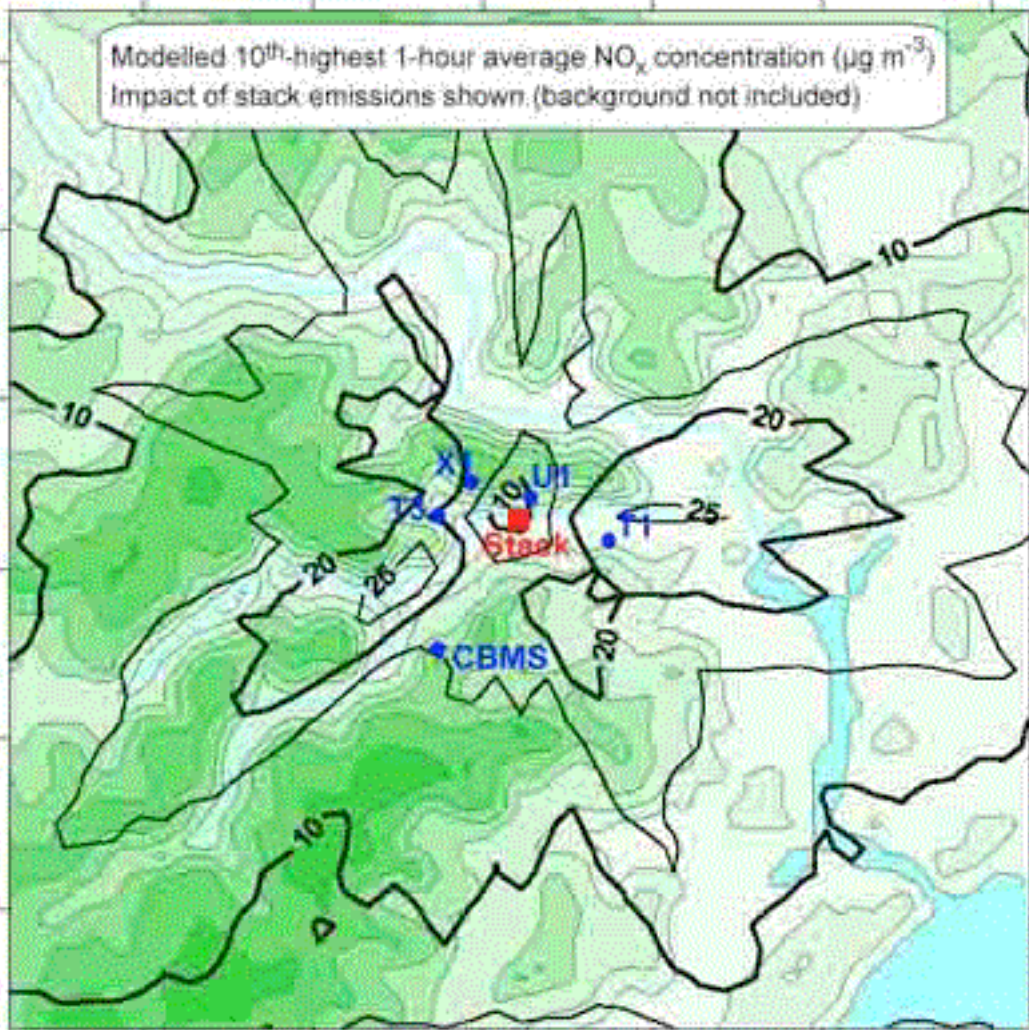
The 3 lobes correspond to the combined pollution impacts (nitrogen dioxide, particles and Volatile Organic Compounds) from the M5 East stack, produced by the prevailing westerly, north-easterly and south-easterly winds.

These pollutants are well known to cause or contribute to childhood and adult asthma, leukaemia, and other heart and respiratory illnesses. Diesel particles are known as a cause of lung and other cancer.

Short term impacts include sore eyes, sore throats, nasal congestion and headaches, which have been reported by many local residents.



Map showing the location of the 'worst hour' of pollution from the stack. This map shows Nitrogen oxides but all pollutants show a similar pattern. The peak over Gardiner Pk, Banksia occurred on 16<sup>th</sup> April 2002 and that over Kyeemagh on the 3<sup>rd</sup> December 2002. The isopleth lines show the extent and magnitude of the worst impacts.



Map showing the distribution of '10<sup>th</sup> worst' impacts, which is a better measure of frequent extreme impacts. The worst areas are North Arncliffe, Bardwell Park and parts of Tempe, Arncliffe and Earlwood.

Short term adverse health impacts such as asthma attacks are mainly the result of peak exposure to sensitising pollutants such as nitrogen dioxide and fine particles.