

1.168 Clean Air and Urban Landscapes: Towards a Clean Air Plan for Western Sydney.

Presenting Author:

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Abstract:

The negative health impacts of airborne particulates on urban populations are now well established. Whilst the air quality in Australian cities is generally very good compared to many other parts of the world, Sydney experiences occasional poor air quality events that expose the population to heightened health risks. The population within the Sydney basin is predicted to grow by ~ 20% in the next decade, increasing both the local sources of pollution and the population exposed.

The Clean Air and Urban Landscapes hub has formulated a project to address this issue called the Western Air-Shed Particulate Study for Sydney (WASPSS). The project will provide the tools and evidence to develop a Clean Air Plan for Western Sydney. Research activities will be focussed around three main research aims, each with their own subprojects:

- (1) Extend air quality measurement/monitoring capacity to support improved characterisation of air quality in Western Sydney.
- (2) Implement and validate state-of-the-science regional air quality modelling to assess major sources contributing to air pollution in Western Sydney and assess benefits arising from a range of possible mitigation measures.
- (3) Evaluate existing methods applied internationally and locally for estimating human exposure to airborne pollutants, and estimate air pollution related exposures and health effects for Western Sydney.

The project will focus on filling measurement gaps to test a new model ensemble as well as estimating human exposure. The project will enable policy makers to estimate the benefits of different mitigation strategies to the future air quality in Western Sydney.