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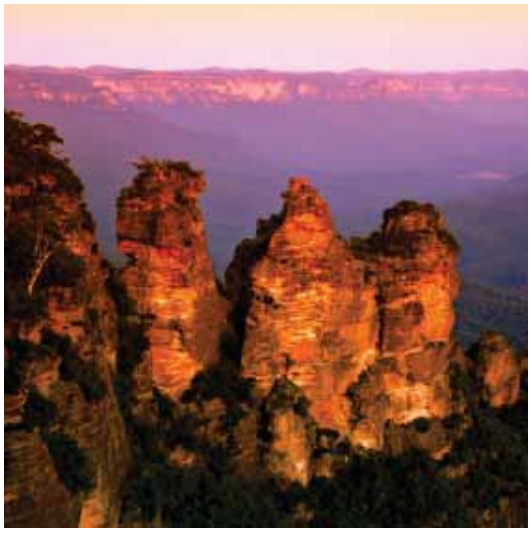
RESEARCH DIRECTIONS

Come up for air

Dr Sue Reed from the School of Natural Sciences has collaborated with the Blue Mountains City Council to study air quality in the World Heritage listed Blue Mountains.

'The air we breathe typically has tiny particles in it, which in large quantities are visible as haze or smoke. These "fine particulates" (known as $PM_{2.5}$) have been identified as a major cause of respiratory and cardiovascular disease' says Dr Sue Reed. 'Two major sources of $PM_{2.5}$ are wood smoke and motor vehicle exhaust. Wood smoke can be a compelling argument against using wood heating. In winter, especially in rural areas, where wood is either free or very cheap, locals fire up their wood heaters during cold snaps. If the heaters are not used correctly, they will generate high concentrations of wood smoke limiting visibility. Because of the presence of the fine particulates in the air from wood smoke, there has been public debate about the use of open fires and slow combustion stoves.'

This study has been undertaken as a pilot research project with the aim of determining the typical levels of $PM_{2.5}$ in the Blue Mountains west of Sydney and what the potential sources and levels are likely to be during winter months. With this aim in mind, monitoring sites have been selected to record the levels of wood smoke, vehicle and coal train emissions in the air during the winter with a special station set-up at Wentworth Falls 867m above sea level to collect the required data.



Preliminary data as a result of this study will highlight any areas of concern and determine whether further monitoring is required over a wider area of the Blue Mountains region. The results of the pilot study will be included in the first Blue Mountains State of City Report that begins to track the City's progress towards sustainability.

Project Title: Blue Mountains Air Quality Pilot Study
Funding has been set at: $10,000
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