

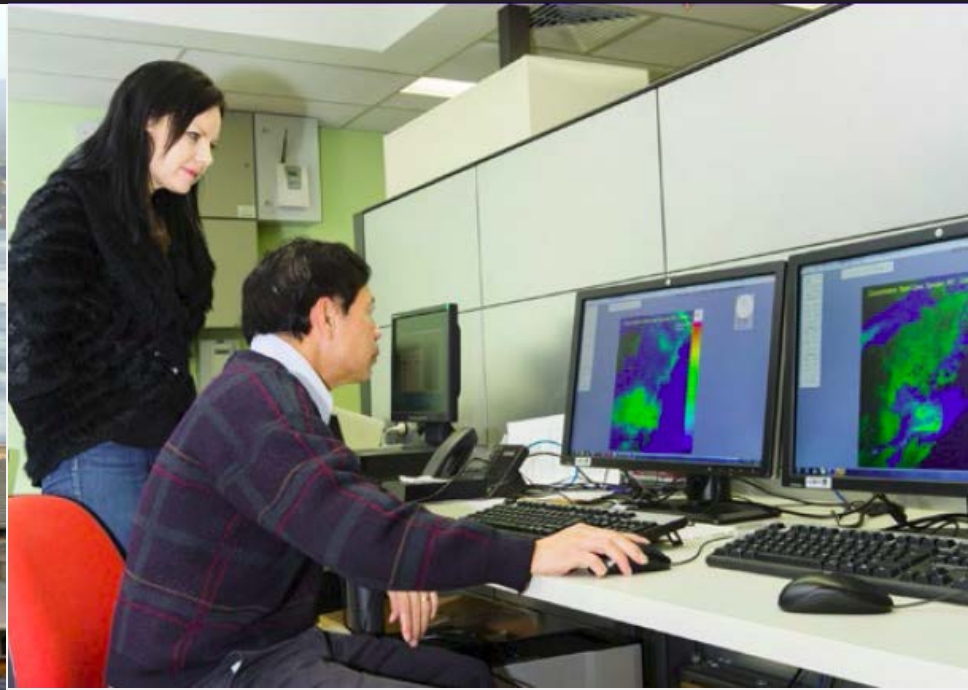
Clean Air Summit

Opening Session

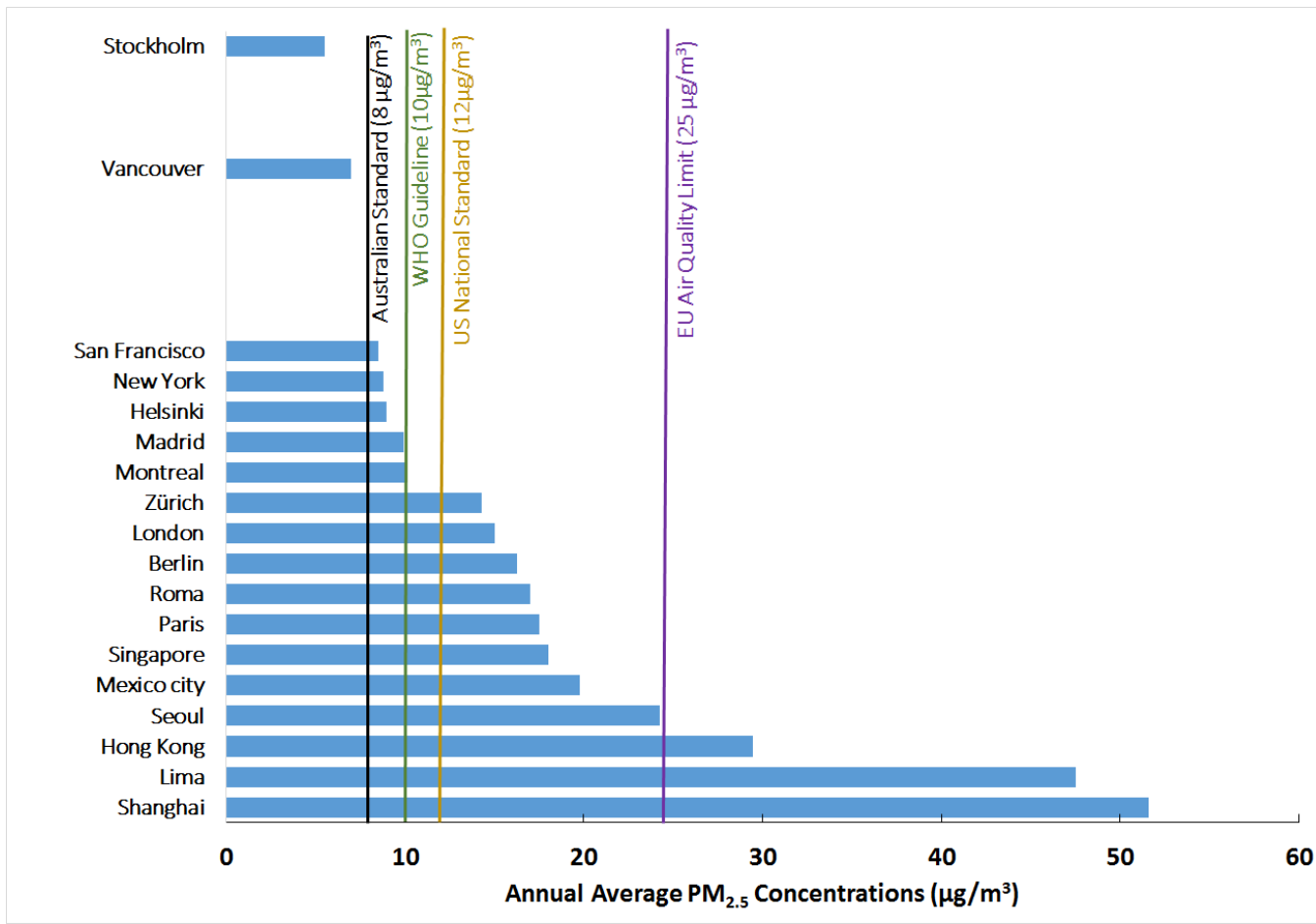
Dr Kate Wilson

**Executive Director Science Division,
NSW Office of Environment and Heritage**

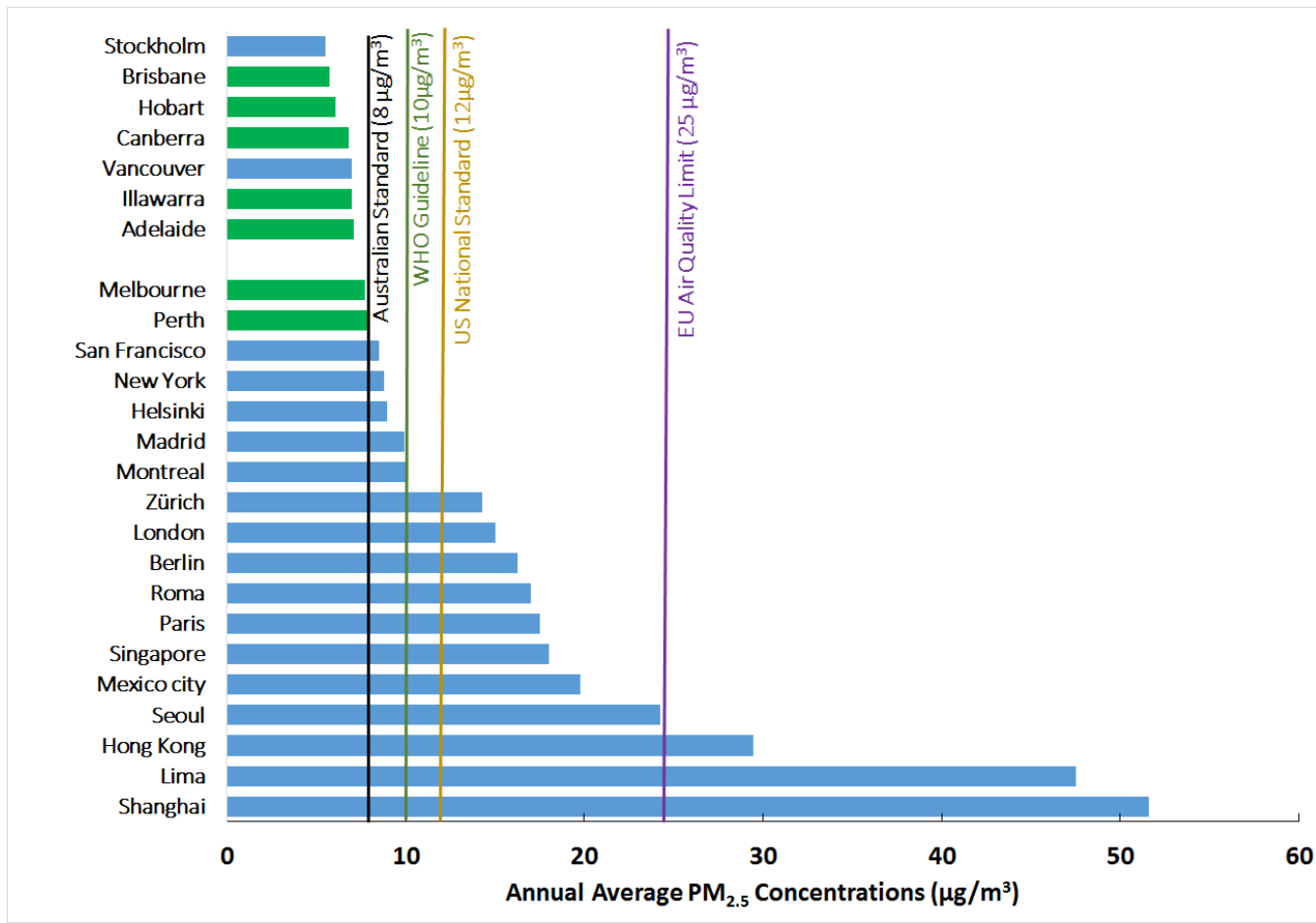
NSW Air Quality – current state and trends and how we will measure improvements



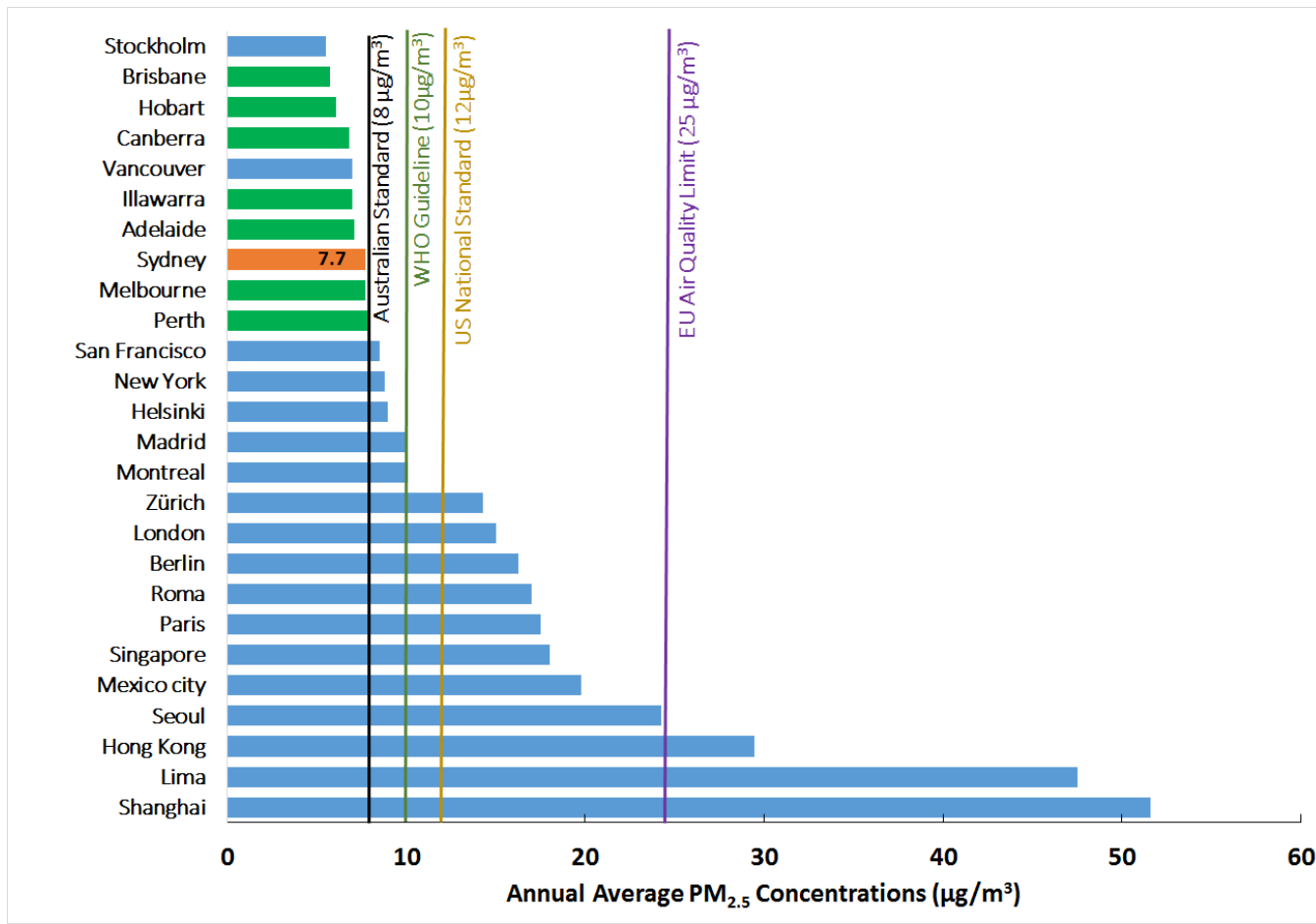
How does it compare to air quality elsewhere?



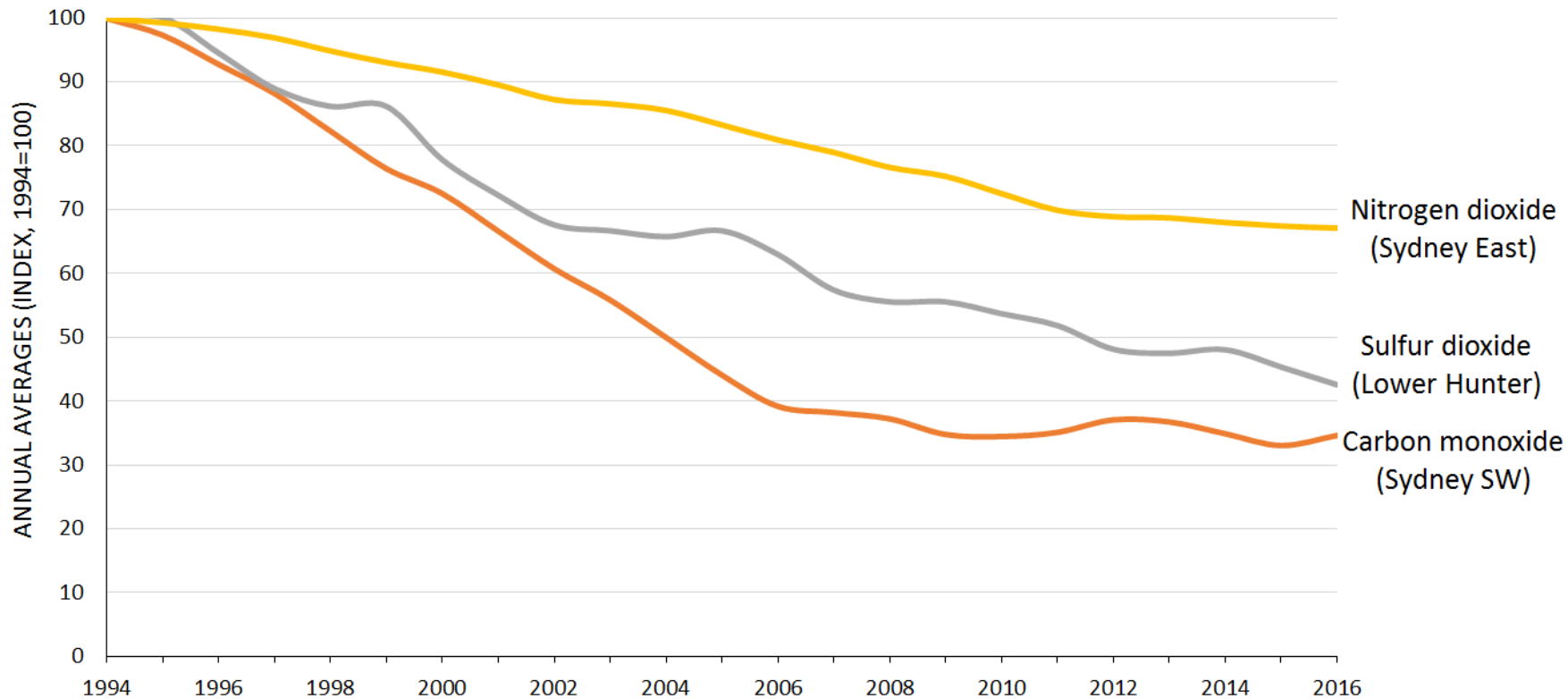
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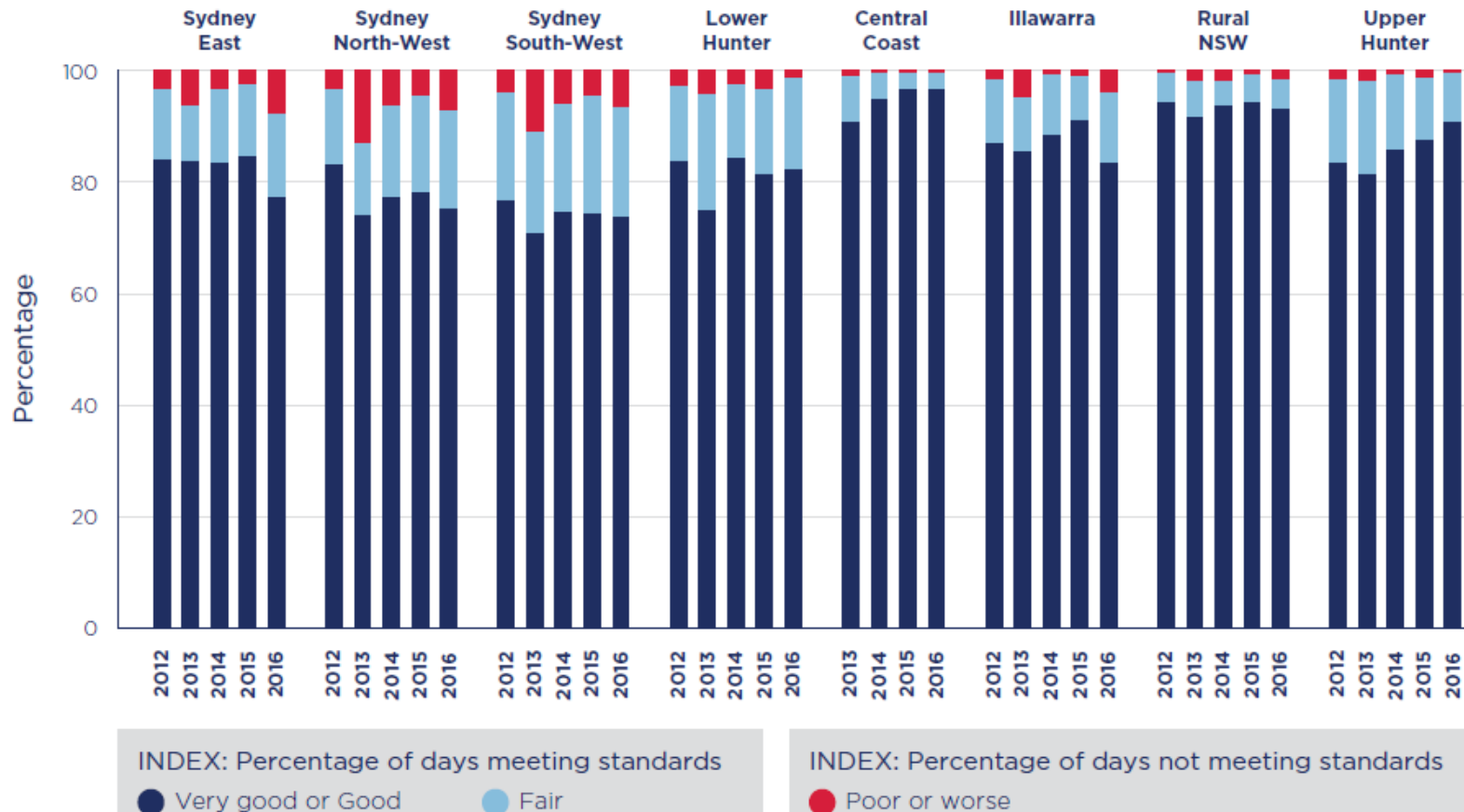


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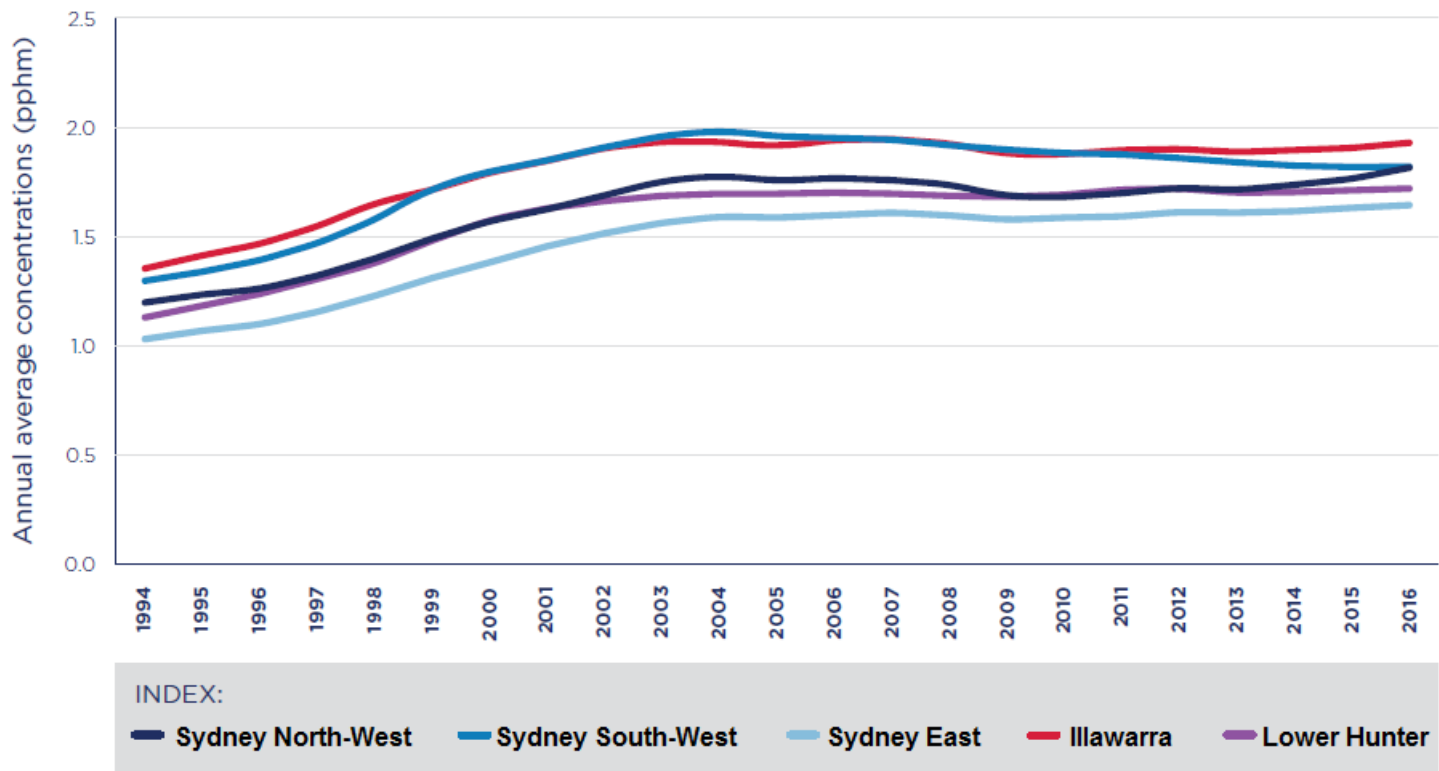


How has air quality changed in NSW in recent decades?

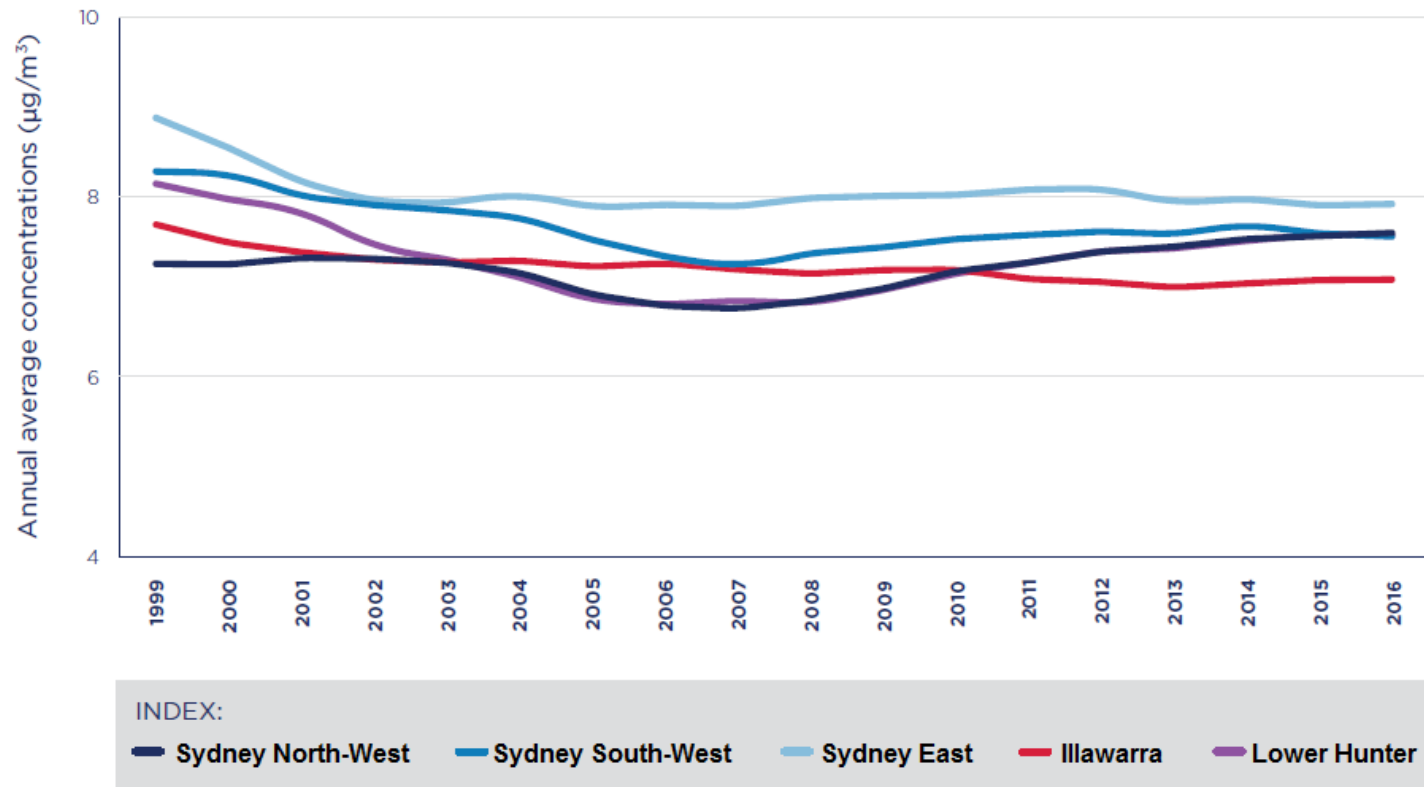




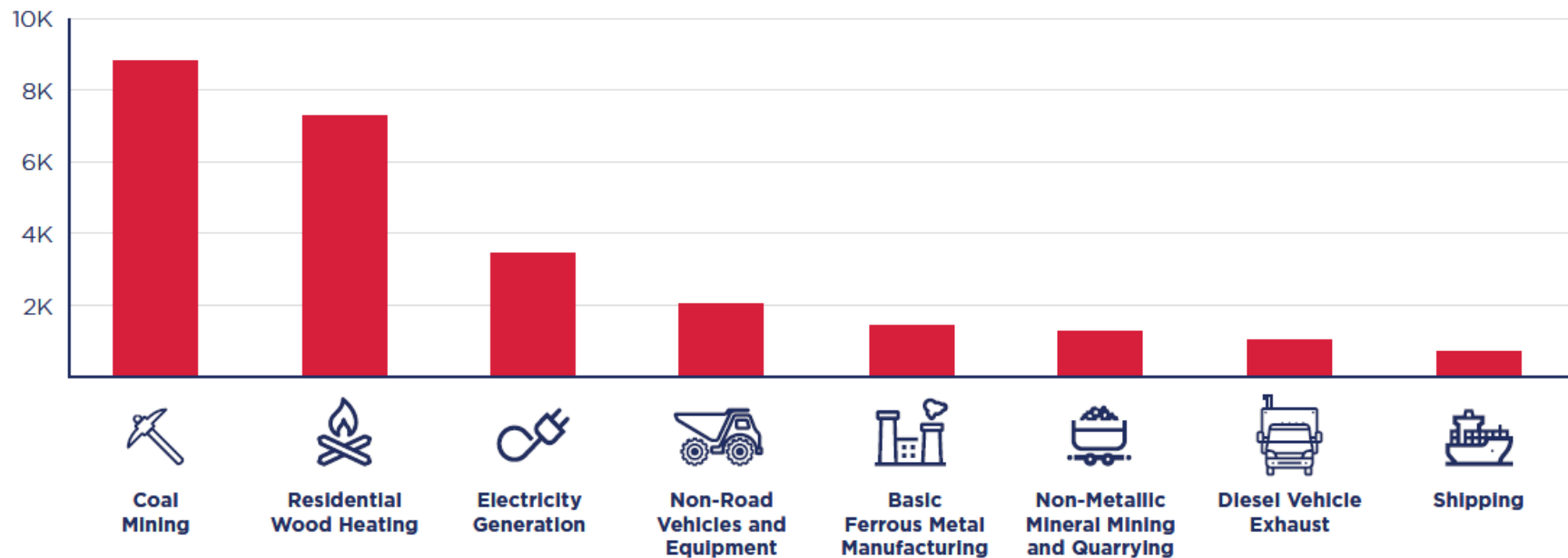
TRENDS IN ANNUAL AVERAGE OZONE LEVELS FOR 1994-2016 BY REGION



TRENDS IN ANNUAL AVERAGE PM_{2.5} LEVELS FOR 1994-2016 BY REGION

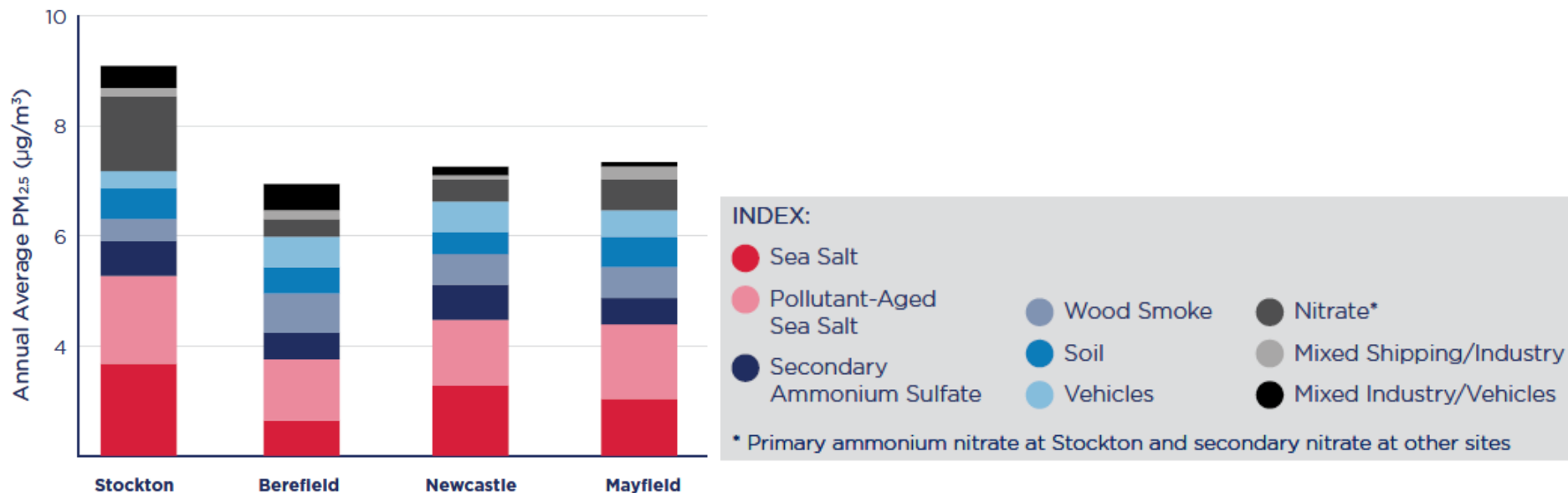


GMR Air Emissions Inventory – Top human-made sources of PM_{2.5} emissions in GMR (tonnes/year)

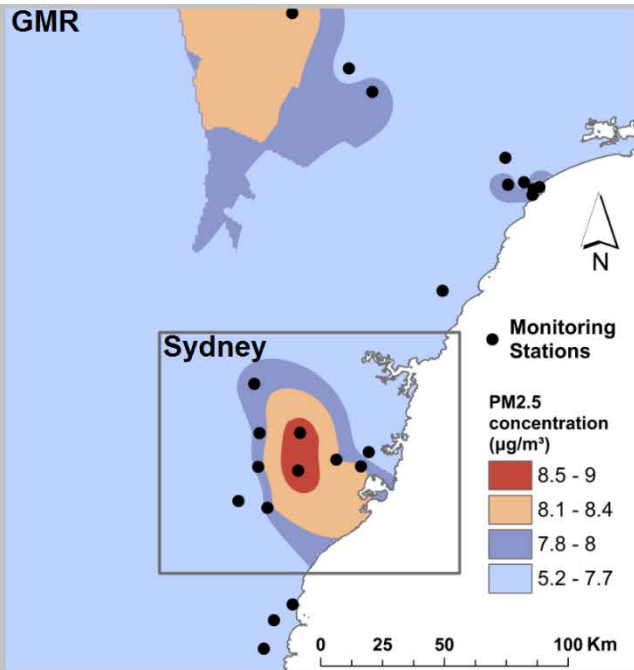


Lower Hunter Particle Characterisation Study

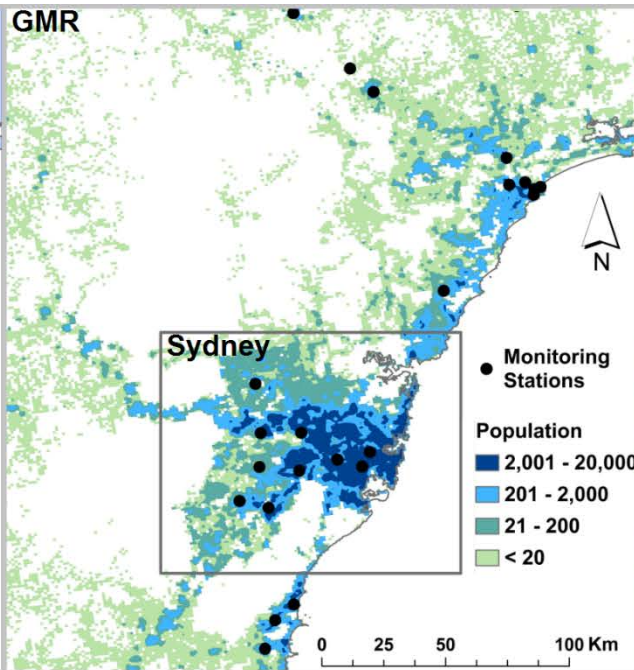
Source factors contributing to annual average PM_{2.5} concentrations



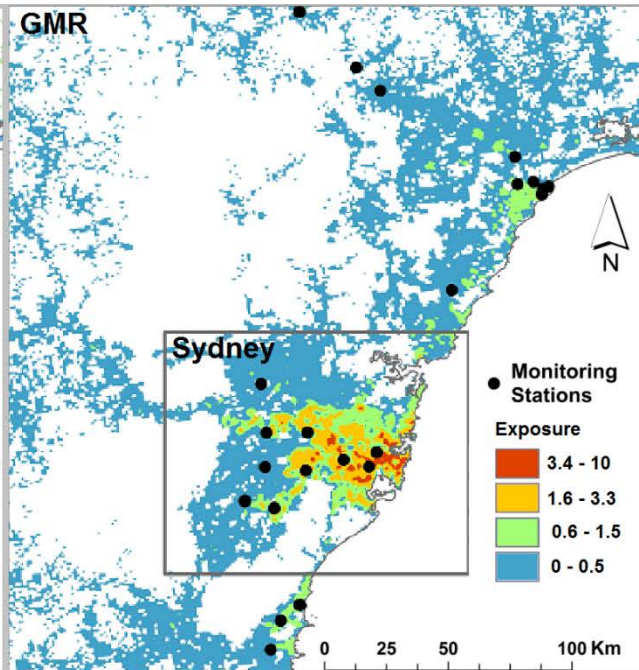
How will we measure air quality improvements?



Annual Average PM_{2.5}
($\mu\text{g}/\text{m}^3$)



Population
(people/ km^2)



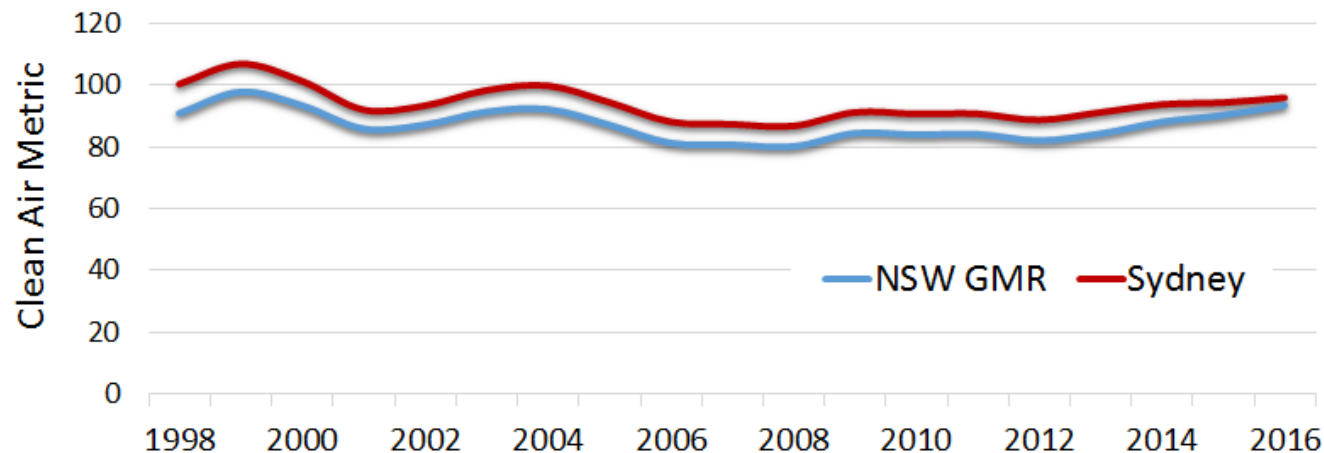
Exposure Index

How will we measure air quality improvements?

Clean Air Metric (CAM) - 2016

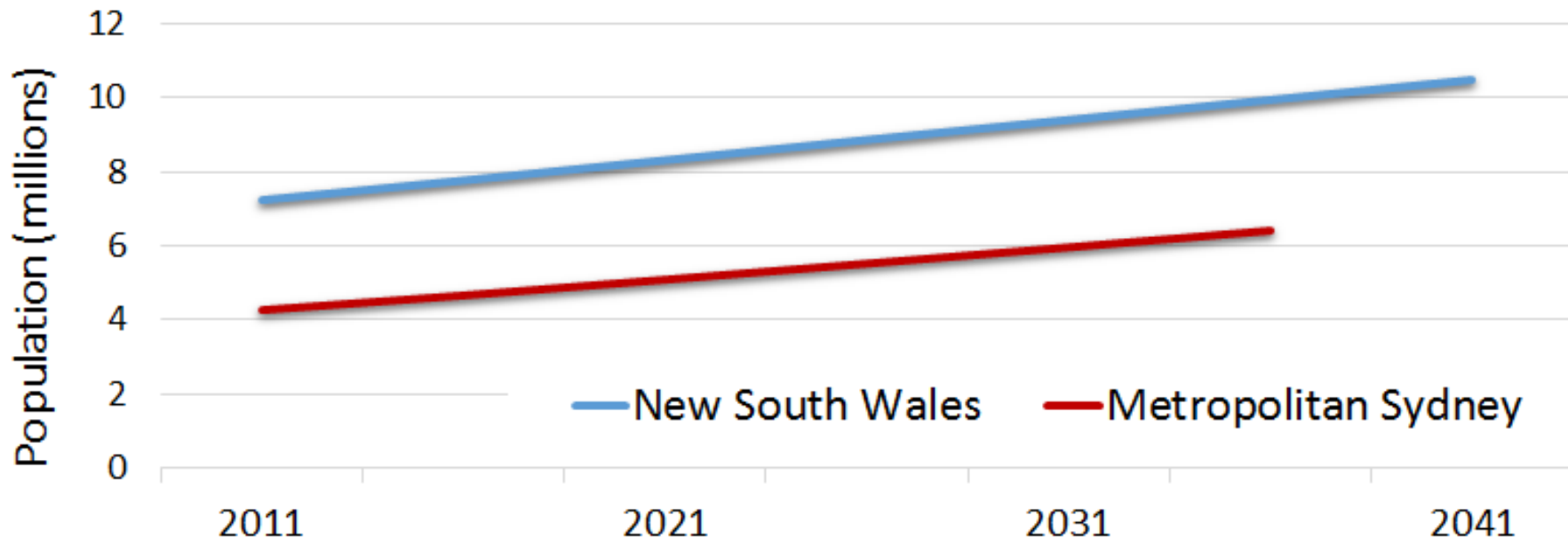
REGION	3-YEAR AVERAGE POPULATION	3-YEAR ROLLING AVERAGE, POPULATION-WEIGHTED POLLUTANT AQI				CAM
		PM ₁₀ INDEX	PM _{2.5} INDEX	NO ₂ INDEX	SO ₂ INDEX	
Sydney	4,606,160	70	96	29	4	96
GMR	5,760,220	69	94	28	4	94

Clean Air Metric (CAM) – Historical Trends

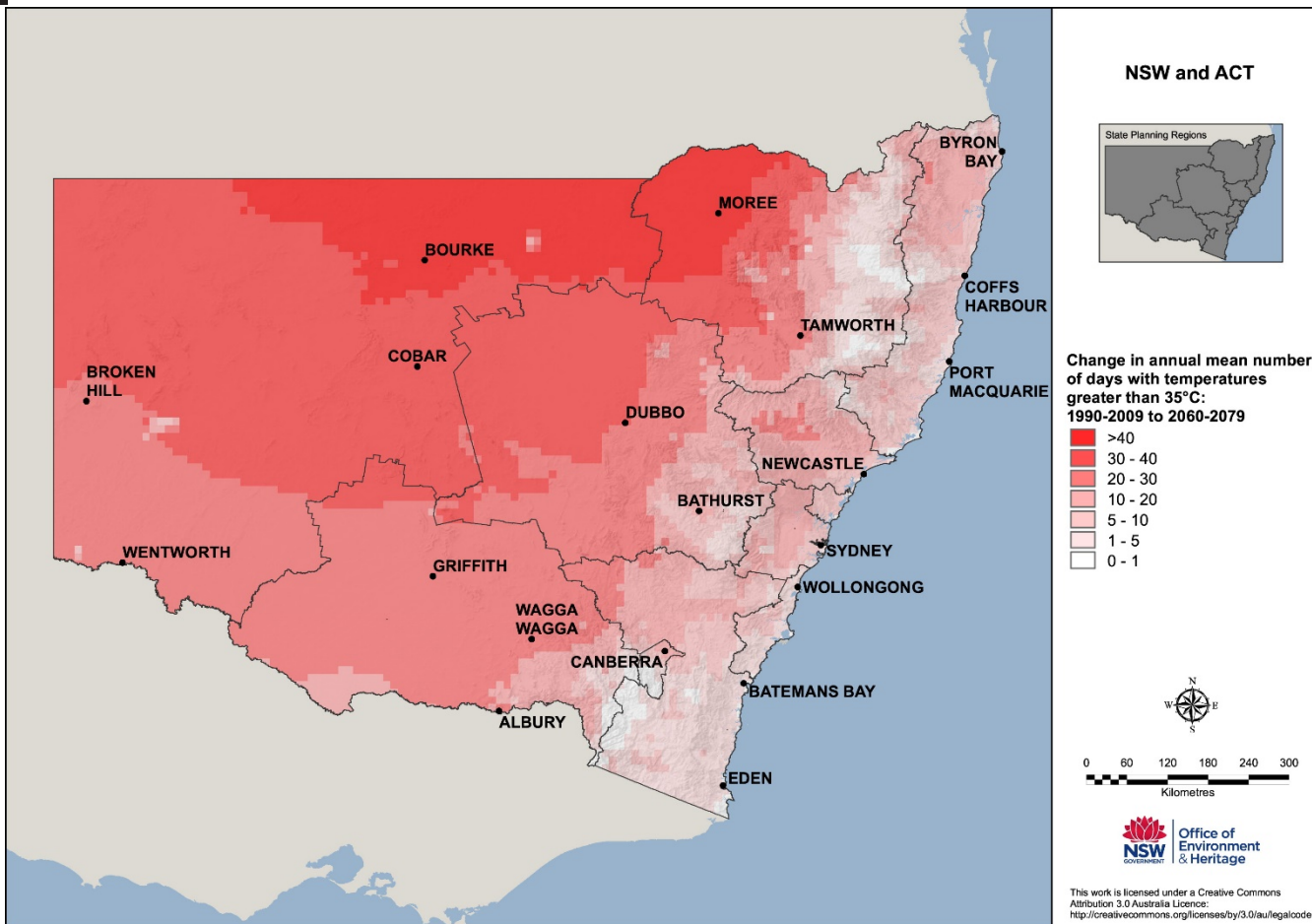


How will air quality change in the future?

Population projections for NSW



How will air quality change in the future?



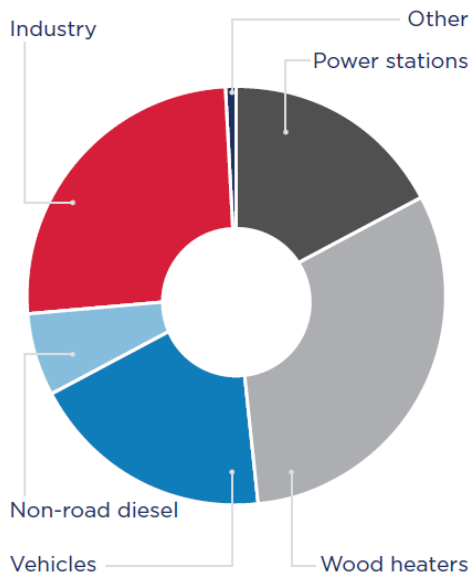


Figure 3 Major source contributions to predicted annual average PM_{2.5} (population-weighted) due to human-made sources for the Greater Sydney region

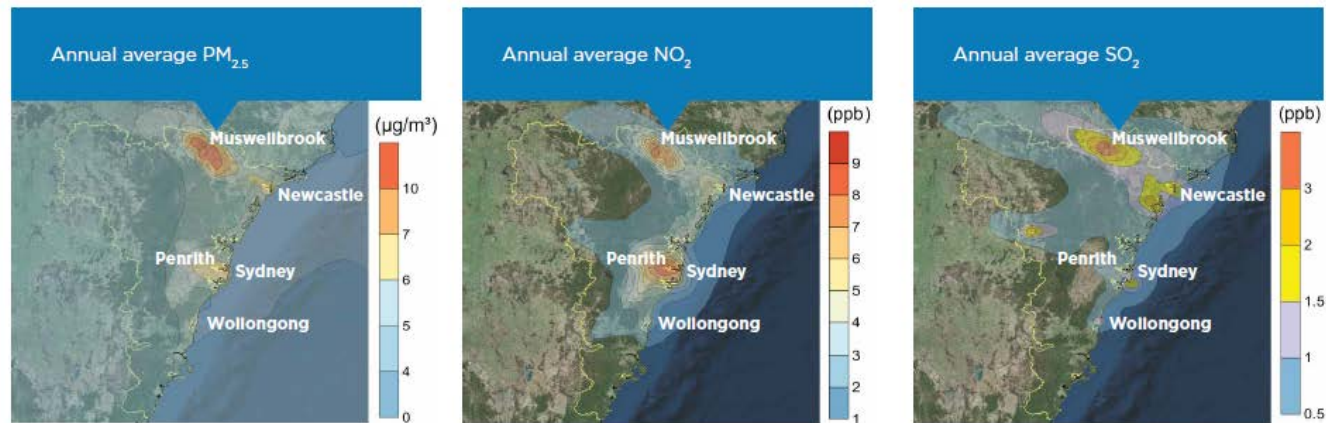


Figure 2 Modelled annual average PM_{2.5}, NO₂ and SO₂ concentrations for 2008 based on the GMR Air Emissions Inventory



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