Abstract: Exposure Science measures exposures to environmental contaminants to understand their contact with humans and their potential to impact upon health. Tools that are utilised include sensor systems, analytic methods, computational tools, and bioinformatics. Having improved methods for the collection of exposure data ensures that it is possible to understand, and reduce, the impacts of environmental pollutants on human health. Understanding the impacts air quality on human health in urban areas is challenging. One tool that has been developed to assess the intra-urban variability of air pollutants is the Land Use Regression model. This requires air quality data from multiple monitoring sites, land use data and traffic count data. The presentation will include monitoring methods and applications of intra-urban air quality data for assessing health effects.

Presenter: Dr Amanda Wheeler is a Senior Research Fellow at Edith Cowan University. Prior to this, Dr Wheeler was a Research Scientist with Health Canada where her research included personal exposures to air pollution from residential and ambient sources, as well as understanding the intra-urban variability of air pollutants. This research builds on research at the Harvard School of Public Health where she focussed on susceptible populations’ personal exposure to air pollution and cardiovascular health effects.