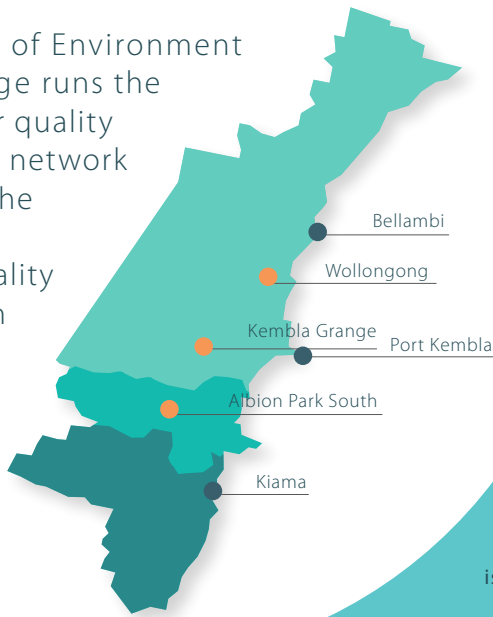


# Air Quality in the Illawarra

NSW Office of Environment and Heritage runs the Illawarra air quality monitoring network providing the community with air quality information since 1992



● Active air quality monitoring station  
● Towns in the Illawarra

## How we monitor air quality

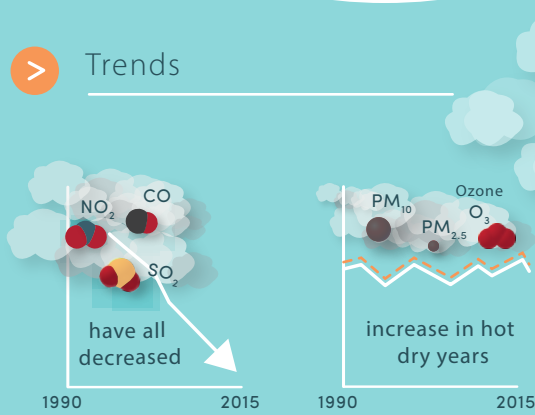
Air quality monitoring stations contain scientific instruments that measure air pollutants accurately and continuously throughout the day

These stations monitor **6 common air pollutants**

- Sulfur dioxide  $SO_2$
- Ozone  $O_3$
- Carbon monoxide  $CO$
- Fine Particles  $PM_{2.5}$
- Nitrogen dioxide  $NO_2$
- Particles  $PM_{10}$

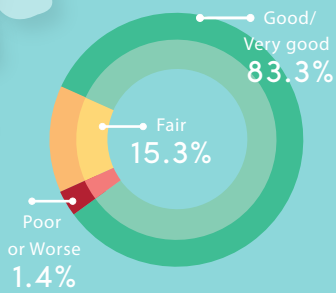
Air quality monitoring data is updated hourly and available online [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

## Trends

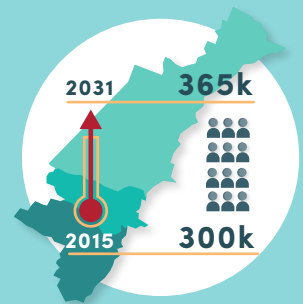


Illawarra air quality has been improving since 1990 and is good by international standards

## Air quality in 2014



Future air quality will be affected by population growth and changes in climate



## Health effects

**PM<sub>2.5</sub> & Ozone** are invisible to the naked eye can be breathed deep into the lungs

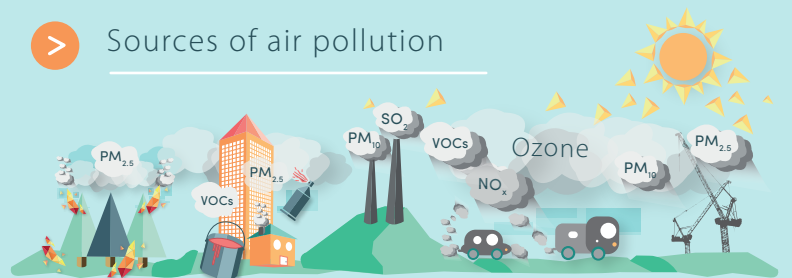
The elderly, children and people with existing heart and lung problems are most at risk

Human Hair 50-70 microns in diameter  
PM<sub>2.5</sub> less than 2.5 microns in diameter

26 PM<sub>2.5</sub> particles would fit across the width of a single strand of hair

Exposure to particles and ozone can increase risks of lung and heart disease and aggravate existing conditions

## Sources of air pollution



Natural	Household/commercial	Industry	Road transport	Non-road sources
Bushfire smoke and dust storms can cause poor air quality days. Forested areas release VOCs contributing to ozone pollution.	Residential wood heating accounts for over 90% of particle emissions from this sector. Paints, aerosols and solvents emit VOCs that contribute to ozone pollution.	Industry is a major source of particle, $SO_2$ and $NO_x$ emissions. Emissions are regulated by the Environment Protection Authority and appear to be decreasing.	Cleaner fuels and vehicles have reduced emissions. But because of increased vehicle numbers, road transport remains a major source of $NO_x$ and other pollutants.	Construction, mining equipment, trains and ships are a large source of fine particle emissions. Some non-road sources are unregulated, with their emissions likely to increase in the future.