

# AIR & ATMOSPHERE RESOURCES

The atmosphere, air and climate are vital natural assets that play a key role in the health of the community, protecting the environment and fostering economic development.

The region's air quality is generally good with only localised sources of pollutants. However, the Queensland Renewable Energy Plan, 2009 identified Queensland as the fastest growing and most energy intensive state in Australia and more harmful greenhouse gases are produced per person in Queensland than any other state with approximately 43 tonnes of greenhouse gas emissions per capita. The major sources of air pollutants in the Wide Bay Burnett are associated with motor vehicle use, industrial and domestic energy consumption, bushfires and methane produced from grazing stock. Continued population growth, the number of households and increasing reliance on motor vehicles all pose a threat to future air quality.

Queensland's climate is subject to the influence of the greenhouse effect and associated global warming, with discernible changes now being detected in the temperature and rainfall monitoring records. Climate change impacts are projected to intensify with hotter daytime temperatures, more variable rainfall, more severe storms/cyclones and rising sea levels.

The Wide Bay Burnett Regional Plan 2007-2026 states that maintaining the region's liveability and minimising regional pollutant contribution to the atmosphere is a priority, as regional population and supporting industries grow. Reducing greenhouse gas emissions and air pollutants is required to stabilise atmospheric concentration and mitigate the potential impacts of climate change.

Greenhouse gas emissions and air pollutants can be reduced by:

- Increasing energy efficiency;
- Reducing land clearing, improving land management practices, preserving areas of native vegetation and planting trees;
- Promoting sustainable transport choices such as public transport, cycling and walking.



Cane Burning. Images courtesy of Tourism QLD



## Draft Regional Targets for Air & Atmosphere Resources:

### **A1: By 2031, the region will make a x% contribution to meet the national target for a reduction in greenhouse gas emissions.**

The Carbon Pollution Reduction Scheme is a national scheme to reduce greenhouse gas emissions. It will come into effect on 1 July 2011. A percentage target will soon be defined for the Carbon Pollution Reduction Scheme.

Greenhouse gases are a natural part of the atmosphere and contribute to the maintenance of the temperature conditions suitable for life on earth. Common greenhouse gases include: water vapour, carbon dioxide, nitrous oxide and methane.

Human impacts such as the use of fossil fuels, broad scale tree clearing, and agriculture has increased the concentrations of greenhouse gases emitted into the atmosphere. Excess greenhouse gases in the atmosphere trap heat and increase global temperatures. This scenario is known as the greenhouse effect, global warming and climate change.

The Intergovernmental Panel on Climate Change (IPCC) Special Report on Emission Scenarios predicted that by 2030 the Wide Bay Burnett region will experience annual temperature increases of 0.3 to 1.5 degrees, and rainfall will become more variable.

Reducing the amount of greenhouse gas emissions will slow down and limit global warming and the impacts of climate change can be reduced, delayed or avoided.

### **A2: By 2031, levels of air pollutants in the regional air shed will be at or below the Quality Objectives in Schedule 1 of the Environmental Protection Policy (Air) 2008.**

Air quality is important for human, flora and fauna health. Common air pollutants include: carbon monoxide from car exhausts, sulphur dioxide and nitrogen dioxide from burning fossil fuels, wind-blown dust, and smoke from fires.

Air pollution can result in ozone damage and global warming, respiratory problems, and reduced forestry, grazing, cropping and horticulture production.

### **A3: By 2031, thermal, noise and light pollution will be at or below the 2012 baseline.**

Thermal pollution is an increase in air temperature caused by heat from man-made sources. Thermal pollution can affect the weather and the local climate, resulting in variations in temperature and altered rainfall frequency, quantity and chemical composition.

Noise pollution is displeasing and/or excessive human/animal/machine created sound that disrupts the activity or balance of human or animal life. The most common noise pollution causes are transport systems (motor vehicles, aircraft, rail), construction and industrial sites. Noise pollution is detrimental to native wildlife. It can cause stress, interferes with communication and sleep and contributes to the reduction of suitable habitat.

Light pollution is excessive and/or obtrusive artificial light that disrupts the activity or balance of human or animal life. Light pollution commonly results from building exterior and interior lighting, car lights, street lights, factories and illuminated sporting venues. Light pollution affects native wildlife behaviour. For example bright lights can disorient nesting and hatching marine turtles.

## References

Department of Employment, Economic Development and Innovation 2009, *The Queensland Renewable Energy Plan*.

Wide Bay Burnett Regional Planning Advisory Committee 2007, *Wide Bay Burnett Regional Plan 2007-2026*.

Intergovernmental Panel on Climate Change 2000, *Special Report on Emission Scenarios*.