

Good for  
**Environment**  
Good for  
**Business**  
Volume II



Murray River, South Australia

## Introduction



The Environment Protection Authority (EPA) is tasked with a broad range of responsibilities to protect, restore and improve the environment through modern, risk-based approaches to pollution, waste, noise and radiation.

Our role is fundamental in sustaining and, where possible, improving the wellbeing and prosperity of the community. Much of our success relies on the partnerships forged between communities, business and industry groups, and all sectors of government.

The EPA recognises the economic benefits of supporting good, clean and environmentally sustainable enterprises in South Australia. We know that sustainable outcomes are not only good for our valued and treasured environment, but they also drive innovation and growth, attracting investment.

The EPA is in a unique position to see first-hand how innovation and excellent outcomes often arise from difficult circumstances. There are many examples of businesses who have faced environmental problems, or who have sought to lower their environmental footprint through reducing waste water discharges or air emissions, and used those challenges to invest and drive innovation. This has led to them seeking further opportunities and innovation, including building stronger and more robust relationships with their local communities, and growing a more sustainable business.

Achieving a balance between environmental outcomes and desired economic and social benefits is a challenge that we constantly face. We respond by looking for opportunities to do things even better, and by openly engaging with communities and industry. Good regulation is good for business and good for the community.

Some industry activities have potential to harm the environment, and this underlines the importance of the EPA's role in educating and informing industry to reduce their potential impacts.

Around 97 per cent of South Australia's enterprises are run by small businesses, which collectively contribute \$34 billion towards the state's economy and employ around 242,000 full-time workers.

The case studies in this brochure represent just some of the small to medium enterprises that have made their own contributions towards sustainable improvements to the environment and are among the 2,200 South Australian companies licenced by the EPA.

I am pleased to present this new series of case studies highlighting some of South Australia's most environmentally innovative businesses.

Tony Circelli  
Chief Executive  
Environment Protection Authority

## Wirra Wirra

**Wirra Wirra is one of South Australia's most recognisable wine brands, but it is also a company which has used its commitment to environmentally sustainable practices as a driving force in its development and a key plank in its success.**

Established in 1894, the winery was in hiatus for almost 50 years until 1969 when two cousins, Greg and Roger Trott, bought the property and set a course of recovery by salvaging its fermenting tanks and recommissioning the vineyard, naming it Wirra Wirra, which is Aboriginal for "amongst the gum trees".

It now employs more than 40 people in its picturesque McLaren Vale location, which helped inspire Greg Trott to become proactive on issues of water management, land conservation and chemical use.

Since 2005, Wirra Wirra has employed a dedicated environmental co-ordinator to manage various projects to provide a cleaner and more environmentally efficient winery.

More than 4,200 native trees have been planted on its McLaren Vale site, its creek has been rehabilitated and 900 exotic trees and shrubs removed, along 400 metres of paths.

EPA Director Strategy and Business, Roslyn Agate said this winery not only understands its environmental responsibilities but also recognises the economic benefits.

"Wirra Wirra will often proactively seek advice and guidance from the EPA on environmental matters that has seen improvements to the company's waste management and a reduction of wastewater overflows," Ms Agate said.

"This recognises the significance of on-site environmental management as part of its business plan."

In 2012, Wirra Wirra gained membership to Trees for Life and in the following year achieved National Association for Sustainable Agriculture Australia (NASAA) membership, which sets a benchmark for organic, biodynamic and sustainable agricultural practices.

The company has also been working on waste minimisation for a long time and continues to maintain an on-site composting program for its vintage waste as part of its treated wastewater sludge. This has reduced the quantity of solids in its untreated wastewater by 70% which has been achieved through the installation of stainless steel screens on winery drains.

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Efficiency drives and the installation of solar panels in 2014 has seen the company's reliance on the electricity grid fall by 50% while there has also been a 60% reduction in carbon dioxide emissions during the same period, with annual savings of around \$50,000.

Wirra Wirra is now focused on gaining Entwine Australia certification – the wine industry's national environmental assurance program – as its next significant environmental milestone.



## Harrop Casting Technologies

What began as a small and modest business known as *Australloy* in 2011 at the Wingfield Cast Metals Precinct in Adelaide's northern suburbs, has since seen steady growth and more recently, an expansion, by merging with a Victorian-based company to become *Harrop Casting Technologies*.

EPA Director, Mining, Radiation and Regulatory Support, Keith Baldry said the company's commitment towards sustainability was first recognised soon after it began operating at its site by developing a sand recycling operation to reclaim a large portion of its used sand.

This project has taken sand recycling from zero in 2011 to more than 60% currently, with further work underway to increase this to 80%.

"There is no presence of odour in the vicinity of this foundry, or issues with off-site dust, with any noisy activities confined to a sound-proof section of this facility and it doesn't operate at night," Mr Baldry said.

"Also, its wastewater is managed well and pollution control equipment is constantly maintained which effectively produces very little swarf. Very few chemicals are kept on site and those that are there, are managed appropriately."

The company specialises in superchargers, induction manifolds, differentials and cooling systems and evolved from a traditional automotive supplier to a broader manufacturing facility, producing quality castings for diverse markets including the defence and marine industries.

Harrop Casting Technologies now boasts flexible manufacturing methods with quality management processes ranging from the production of single prototypes to large quantity castings.

It employs close to 20 specialised staff and engineers with knowledge and experience to deal with industry and licence requirements that has led to the development of an effective network to design, manage, supply and transport quality aluminium castings locally and interstate, and export markets.

This consolidation at the Wingfield facility has provided a significant growth in capacity by bringing synergies and new opportunities for increased die casting and larger envelope sand castings, ensuring a long-term future for Harrop Casting Technologies.

The company's site at the 44-hectare Wingfield Cast Metals Precinct was a State Government initiative that began in 2003 featuring large allotments to lure cast metals industries away from sensitive residential land uses.

The requirement for a wide variety of high integrity castings has now helped boost its capability and capacity as an established supplier of specialist aluminium castings for automotive, industrial and defence components.



Specific zoned precinct to avoid residential areas

From **15%** to less than **1%** reduction in scrap rates

**60%** of sand recycled and work underway to increase this to 80%



## Michell Wool

The name 'Michell' has been synonymous with the Australian wool industry since 1870 when GH Michell and Sons launched a family business that processed wool and traded it throughout the world.

Fast forward 134 years later and brothers David and Peter Michell have control of the business through an acquisition from other family members in 2004 that has kept their family name at the forefront of the international textile industry.

The company which is based at Salisbury has maintained a business plan that is mindful of its location and a focus on its environmental responsibilities to counter local residents' concerns of air quality and odour emissions.

EPA Executive Director Operations Andrew Wood said in recent years Michell Wool has made significant improvements towards its odour management to demonstrate a commitment to work and resolve issues raised with its community.

"This company has dealt with complaints from neighbourhood residents over air quality but through some targeted capital investments and improvements to its operations and processing facilities, they have been able to resolve these issues over the past few years, leading to significant improvements," Mr Wood said.

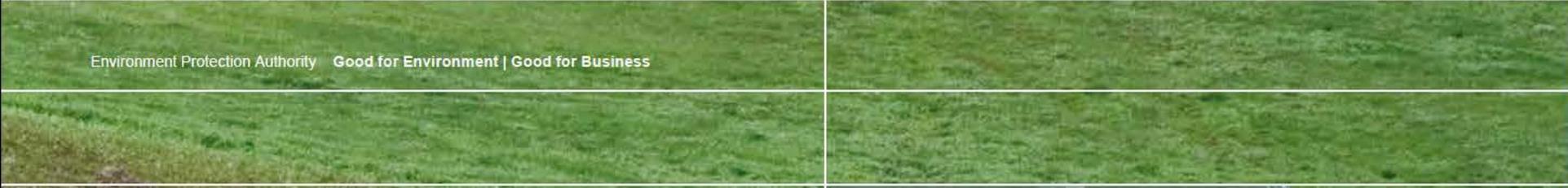
But the company's environmental credentials have extended beyond odour management initiatives and demonstrated through its efforts to reduce a dependence on mains water supplies and by investing in infrastructure to capture and supply greater volumes of filtered stormwater.

Stormwater on the Michell Wool site at Salisbury is filtered through established wetlands before being stored in an aquifer for future use in an environmentally effective process that prevents contaminants from roads and gutters polluting the state's waterways.

Increases in machine loading, by 'doing more with less' has been used to reduce the consumption of water, chemicals and power by as much as 50%. These efficiency gains have been returning beneficial improvements for the environment while providing sustainable and economic business practices.

The use of less chemicals in the company's wool cleaning process has also been a significant gain with the removal of sodium chloride 'salt' thereby reducing the load on the state's treatment works at Bolivar and making water recycling to market gardeners easier.

Michell Wool has also invested in a multi-million dollar scheme to remove solids from its effluent stream, predominantly top soil and wool grease, which is used for composting as a high quality horticulture by-product.





## Master Butchers Co-operative Ltd

**Master Butchers Co-operative Ltd (MBL) was established in 1905 to supply butchers with merchandise, ice and market hides.**

The company expanded 35 years later through the acquisition of land on Grand Junction Road at Wingfield which was used to hold cattle before being herded to the Gepps Cross saleyards.

This led to the creation of MBL Proteins which saw the development of the co-operative's first rendering plant on the southern end of its Wingfield site.

MBL now operates three protein recycling plants, two on the same site and the other, 225 kilometres away, southeast of Adelaide in Keith. At this site over 100,000 tonnes of protein waste is recycled each year, producing 40,000 tonnes of high quality protein meals and tallow including meals for poultry, pig, pet food and aquaculture produced annually.

MBL Chief Executive Officer Warren McLean said the Wingfield facility which became the catalyst for environmental sustainability is a far cry from its first rendering plant.

"This original facility at Wingfield became known as the 'plant from hell' that emitted strong odours which by today's standards is totally unacceptable," Mr McLean said.

"But it did reflect the isolated location and an absence of environmental planning imperatives during that period of our state's industrial history."

For many years the property had no neighbours and was dominated by stock paddocks and vacant land which in more recent years became progressively developed to a stage where commercial and residential properties now surround the site.

"With this progress came the added responsibility for our environmental performance which we had to address to secure the stability of the business into the future," Mr McLean said.

"Finding a solution to the odour problem was essential to allow MBL members to continue to own a viable business and turn their waste into reusable products."

MBL understood that odour control was a complex area but was determined to find the right solution by investigating other companies that faced similar challenges.

"We decided to look outside our own backyard and see what others were doing so a group of executives and Board members travelled widely across Australia and New Zealand, inspecting abattoirs, rendering plants, waste treatment plants and a large sewerage installation," Mr McLean said.

MBL remains committed to its environmental program with its next project focusing on cleaning up its waste water stream.



60%

reduction in power consumption achieved at the Wingfield plant



80%

reduction on loadings in effluent discharge at the Wingfield plant



100%

wastewater diverted to irrigate crops at the MBL Keith site





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