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South Australia



Good for
Environment
Good for
Business
Volume III



Narrung Wetlands - Limestone Coast, South Australia.
Image Courtesy of South Australian Tourism Commission

Introduction



The Environment Protection Authority (EPA) has a significant role in ensuring a healthy environment for the wellbeing and prosperity of all South Australians.

Our long-term environmental goals of good quality land, water and air, as well as safe use of radiation, protection from unacceptable noise and sustainable use of resources, are what we seek to achieve. We do this through a variety of ways from rewarding and recognising leading sustainable practice, through to applying a modern approach to regulation that encourages innovation and which creates a more even playing field for business.

We support a clean and healthy environment that supports the prosperity of the state and the sustainability of future generations. To achieve this, we are committed to inform and actively engage with communities, industry and across government to manage environmental pressures and to find innovative solutions to emerging environmental challenges.

Around 97 per cent of South Australia's businesses are small businesses. The South Australian Government recognises the importance of small businesses to our economy and the contribution they make to employment, income and exports. Collectively, they contribute \$34 billion towards the state's economy and employ around 242,000 full-time employees.

The EPA licenses around 1,500 businesses in South Australia, with these licences setting out the environmental standards and conditions that those businesses must meet. During recent times, we have seen many examples of innovative practices that industry and business have achieved, including reduction of odour emissions, reuse of wastewater systems and building stronger social licences to operate through engagement with their local community.

We will continue to foster this forward thinking approach and strive to embrace innovation. It's good for our precious environment, our wellbeing and for our longer term prosperity as a community. It also has a positive impact to strengthen business sustainability into the future.

We are proud to present this year's *Good for Environment Good for Business* booklet – highlighting a snapshot of small to medium sized enterprises that have displayed leading examples of innovation and working with the EPA to deliver on a more sustainable future.

Tony Circelli
Chief Executive



2.



Facility uses cleaner production strategies

31 hectare site reclaiming up to 4 mega litres of water per year



Company invests in the natural environment



1.





Petaluma Wines

Set in Woodside on the outskirts of the stunning Adelaide Hills is the state-of-the-art Petaluma winery, the newest edition to the Petaluma vineyards and cellar door.

The winery opened prior to the 2015 vintage after more than a decade of planning and adds to existing vineyards in the Piccadilly Valley, Clare Valley and Coonawarra.

Now part of Accolade Wines, the winery has a maximum grape crush capacity of 2,000 tonnes per annum. The winery crushes and processes grapes sourced from the site and the other regions to produce white, red and sparkling wines. An in-situ bottling line allows wine stored in tanks and barrels to be bottled and labelled on site, then packaged and stored prior to distribution.

EPA's Director Regulation Peter Dolan said the facility incorporates cleaner production strategies with best practice waste management methods in its design.

"The purpose built facility minimises the quantity of wastewater generated. The wastewater management system has been designed to produce high quality reclaimed water primarily for the purpose of irrigation re-use on vineyards and other plantings established on the 31 hectare winery site, where they are now reclaiming up to four mega litres of water per year," Mr Dolan said.

"Petaluma in Woodside is a very well-managed facility with many processes in place to ensure environmental impact is minimised.

"The considered planning to reduce harm on its surrounds while also supporting sustainable practices is demonstrated in its operations," he said.

Petaluma winemaker Mike Mudge said working from a greenfield site has allowed Petaluma's wastewater system to be designed with operational simplicity whilst being able to meet all wastewater variations.

"In doing so this has ensured all regulatory requirements and environmental expectations are met," he said.

"The company also seeks to invest in the natural environment to ensure a sustainable future for winemaking in the three key regions. This includes planting native vegetation offset areas, with an initial budget of \$5,000, then an annual maintenance of \$2,000 per year," Mr Mudge said.

Petaluma was for many years a driver in the rehabilitation of Cox Creek which ran past its old winery, and also the previous cellar door at the Bridgewater Mill.

Main image: Petaluma's state-of-the-art winery incorporating cleaner production strategies.

1. Petaluma's waste management system for re-use on vineyards.

2. Preparing the front paddock for more planting of Chardonnay this spring.



Estimated
700 tonnes
of material will
be diverted from
landfill each year



Currently bale
2,000 tonnes
of cardboard for export.
(diverting it from landfill)

Organised operation includes a trommel in the centre of the shed which is being fitted with a bounce conveyer.





Upgraded facility
Clare Valley Waste Resource
Recovery Facility at Brinkworth



Mills Freightlines (Clare Valley Waste)

With a strong focus on diverting materials from landfill and reducing its environmental footprint, Mills Freightlines has undertaken significant upgrades to its recycling processing facility in Brinkworth, with the state government funding half of the \$600,000 project.

Established in 1966, Mills Freightlines took ownership of Clare Valley Waste in 2007. Since then the business has developed, and its focus is clear – ‘zero waste’ by investing in recycling for the benefit of the future.

Its initial waste operations focused on the Main Street site at Brinkworth – a small-scale paper and cardboard bailing operation. In 2014, Mills purchased an additional property at Condownie Plains Road and developed it into a fully enclosed transfer station.

The Clare Valley Waste Resource Recovery Facility is a large shed used in part to store and segregate waste as well as fertiliser. The facility also has a trommel to screen and separate waste.

The advantages for local councils and residents have been significant as the recycling facility is able to process kerbside recyclables collected by the Mid North councils. In addition it can receive commercial and industrial waste, and green waste.

The focus of its recycling operation has remained cardboard and newsprint with Mills Freightlines achieving a high level of resource recovery and keeping transport costs to a minimum.

In 2017 Mills Freightlines added the green waste stream to the Condownie Plains site to better service the regional areas. The increased recycling capacity means an additional 700 tonnes of material will be diverted from landfill each year – up by 200 tonnes of green organics, 300 tonnes of hard waste and 200 tonnes of kerbside recycling.

EPA’s Director Regulation, Strategy and Assessment Kathryn Bellette said this is a well-placed boutique operation which benefits the regional community.

“Their innovative approach to business operations has provided significant benefit to the environment and to the community. Green organics are dried to reduce the weight and volume for transport from the Brinkworth plant for processing into valuable compost,” Ms Bellette said.

“They have an exemplary compliance history for their sites and continually strive to recover more from waste.”

The Clare Valley facility has 21 staff onsite while its parent company Mills Freightlines employs an additional 15 people.

Clare Valley Waste Manager Josh Zappone said the company is committed to its business.

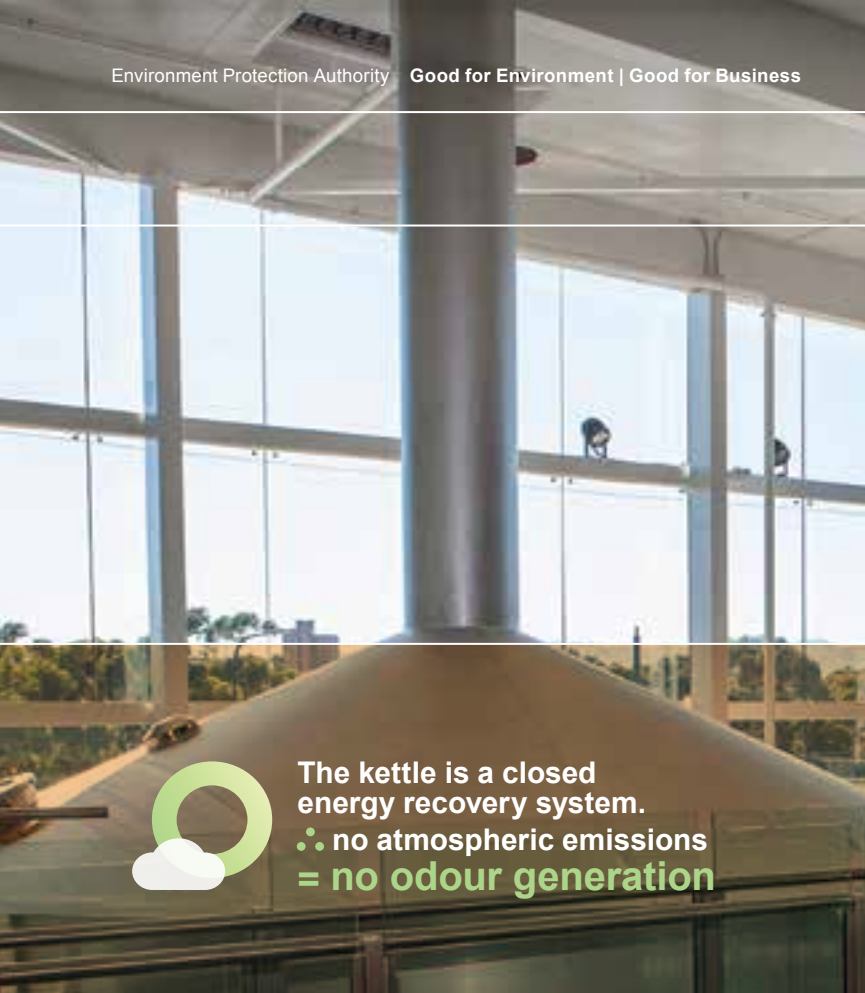
“We are very passionate about the recycling business and want to support local people and country councils manage waste sustainably.

“We have looked to modern and innovative ways to manage the demands of waste production while also reducing our environmental footprint.

“Much of the success of this site stems from good logistics. Transport management and the use of a 100-cubic metre walking floor vehicle for waste delivery to landfill sites has effectively reduced the amount of heavy vehicles enroute to metropolitan landfill sites,” Mr Zappone said.

“We also facilitate cardboard and paper recycling in the Mid North and currently bale 2,000 tonnes of cardboard for export, diverting it from landfill. Our trommel is currently being fitted with an additional bounce conveyer that will significantly improve and expedite our cardboard and paper sorting.

“This facility has required a huge commitment and financial outlay, with efficient logistical management. We are able to provide a financially viable option for local councils and businesses, and plan to do so for future generations.”



The kettle is a closed energy recovery system.
∴ no atmospheric emissions
= no odour generation



60% 

reduction in what the site sends to landfill each year





SA Brewing Company (West End)

The South Australian Brewing Company has been part of the community since 1894 with its West End Brewery one of South Australia's most iconic landmarks.

Situated on the banks of the River Torrens in Thebarton, the brewery is the State's largest with around 110 staff producing over 60 per cent of South Australia's beer sales with brands such as West End, Southwark and Hahn.

Joining Lion's Australian portfolio in 1993 – the Brewery is becoming part of the largest beverage operation in Australasia. It has demonstrated a commitment to improving its environmental performance and is now operating at a best practice industry standard.

In November 2016, the South Australian Brewing Company unveiled a \$70 million investment, with the upgrade providing the Brewery with the flexibility and versatility to produce about 120 million litres of beer every year.

EPA's Director Science and Information Keith Baldry said the South Australian Brewing Company has undertaken significant change over recent years and is committed to delivering environmental benefits through its improved practices.

"Licensed by the EPA since 1995 the company has positively responded to its environmental responsibility. We have worked closely with the South Australian Brewing Company, initially as part of an Environment Improvement Program (EIP), and have seen substantial change to its production practices.

"The benefits of the initiatives across the site include storage and handling improvements to reduce wastewater from cleaning, reducing filling losses to prevent product entering the sewer and most recently, to reduced odour emissions released by kettle steam during the brewing process.

"In preparation for the nearby high density Bowden development the South Australian Brewing Company engaged early with the EPA to prevent any interface issues with its activities.

A voluntary EIP was implemented to address brew kettle odours in 2014. The EPA required odour compliance at the nearest proposed sensitive receptor, taking into account the high rise development.

"In late 2015 the EPA inspected the new brew kettle system installed and confirmed compliance with the EIP. The kettle is a closed energy recovery system which has no atmospheric emissions," Mr Baldry said.

Lion's Engineering Reliability Manager Jensen Jackson said it has modernised processes across the whole brewery to ensure reduced impact on the environment due to more efficient use of resources – from large scale projects to administrative tasks and site campaigns.

"As part of the site improvements, we have upgraded both our stormwater diversion and wastewater system to ensure greater control of our process. In addition to this, we are continually training our staff on spill management and environmental awareness. This has a great impact on the cultural change on site especially around recycling.

"We now separate most of our waste for recycling. This has resulted in a 60 per cent reduction in what the site sends to landfill per year.

"One of our more recent initiatives under the EIP was to install a vapour condenser on our new kettle in the brew house. The condenser captures and reuses lost energy. Another positive effect of installing the condenser is the reduction in odour from the vapour that would previously have been released into the atmosphere," Mr Jackson said.

Currently employing more than 500 people in South Australia, Lion is an important part of the state's agricultural, retail, hospitality and tourism industries – making an estimated \$299 million contribution to the state economy every year.



we encourage
**Significant
Improvements**

through environmental
initiatives and
sustainable practices



EPA licenses
approx **1,500**
businesses
in South Australia



The Environment Protection Authority

Good for
Environment
Good for
Business

setting environmental standards
leads to innovative practices...

◀ reduction of odour emissions
such as
reuse of wastewater systems ▶

97% of South Australia's
businesses are
small business

Rewarding and recognising
leading sustainable
practice to encourage

innovation 

Photos courtesy of:

South Australian Tourism Commission
Lion – South Australian Brewing Company (West End)
Petaluma Wines
Mills Freightlines (Clare Valley Waste)