



Sound environmental management is good business

CAWTHRON MARLBOROUGH ENVIRONMENT AWARDS 2017



JUDGES' REPORT WINE INDUSTRY INNOVATION WINEWORKS MARLBOROUGH

INTERVIEWED	Anthony Barnes and Allie Shaw
DATE	8 December 2016
JUDGES	Roger Kerrison, Tracey Marshall, Bev Doole

INTRODUCTION

WineWorks Marlborough provides bottling, warehousing and distribution services to the wine industry. The large facility on the Riverlands Industrial Estate runs 24 hours, five days a week, and is a heavy user of electricity and packaging materials.

Increasing wine production and a merger with another bottling company led to WineWorks building a 15,000 sq m distribution centre in 2015 with state-of-the-art LED lighting that has greatly improved energy efficiency and prompted a replacement programme in the older parts of the facility.



Increasing production has also led to an increase in waste streams, including cardboard, paper, glass, plastic wrapping and pallets. This has been mitigated by a big recycling effort and a decrease in the amount of waste going to landfill.

The judges found the principles of lean management and continuous improvement well embedded in WineWorks' environmental performance, providing a solid foundation to build on.

GENERAL INFORMATION

WineWorks was established in 1995 and now has facilities in Marlborough, Hawkes Bay and Auckland. They pride themselves on providing the “back-end” services that allow wine companies to focus on growing, making and marketing their wine.

WineWorks is a significant employer in Marlborough, with over 200 staff at their bottling plant and warehouse in Riverlands. They tanker or pipe in the wine from the producer; bottle, label and pack it into cases; provide warehouse storage; load into trucks or containers and ship.

Electricity efficiency: Major consumption of electricity is needed to run the bottling lines, provide lighting throughout the plant and power the forklifts. Improving electricity efficiency is a priority and the construction of the Kendricks Road warehouse involved state-of-the-art LED lighting.

A tailored lighting design ensures the light falls where it is needed. For example, horizontal and vertical lighting allows clear visibility for forklift drivers working with 15 metre-high racks of wine.

Lighting includes Philips LED Tango and LED GreenUp Highbay. These provide:

- Narrow and wide beam.
- Energy savings.
- Long life and reliability.
- Improved workplace safety.

The WineWorks project has become a case study for Philips in encouraging other companies to install energy-saving LEDs.

There is a programme throughout the WineWorks facility to install LEDs to replace old lights as they blow out. As well as saving energy, it makes financial sense. Fitting a new LED costs the same as taking down an old light, replacing the globe and reinstalling. The payback time is relatively short and LED have a life-span of 5-10 years, compared to halide bulbs of two years. There is also a food safety advantage because insects are not attracted to LED.

WineWorks aims to have completely retrofitted their old lighting by the end of 2017.

Waste stream management: WineWorks has policies in place to manage its significant waste streams. Although production has increased, improvements in reuse and recycling mean the volume of waste to landfill has decreased. Measures include:

- Colour-coded recycling bins for glass, plastic, cardboard, paper and non-recyclable waste with clear instructions for staff.
- Plastic is baled and sent to Replas for recycling.
- Glass goes back to O-I, the Auckland manufacturer. 71% of a new bottle is made from recycled glass.
- Cardboard cartons are returned to the manufacturer (e.g. Stelvin caps boxes) to refill, are reused by local companies such as house removals and florists, or recycled through the Marlborough Resource Recovery Centre.



- Ply-card layers off bottle shipments are reused to protect pallets of wine for delivery.
- Pallets are reused by WineWorks or given to local businesses for shipping. Damaged pallets are given to the Salvation Army for firewood.
- Stelvin caps and waste metal go to a scrap dealer.
- Paper and e-waste are recycled through the Resource Recovery Centre.

WineWorks are constantly looking for improvements in waste management and encourage staff involvement in this, for example a new method for collecting plastic banding diverted it from landfill to recycling. They focus on using local facilities rather than shipping waste and recycling offshore and as big players in the market they are able to influence their suppliers to reduce and reuse packaging

Water use: Statistics for water use per case is trending down. WineWorks' bottling process uses 1L of water per 1L of wine for flushing and rinsing bottles before use. Their trade wastewater is only lightly contaminated and provides dilution for stronger wastewater coming from the industrial estate.

Industrial Estate Revitalisation Project: WineWorks Managing Director Tim Nowell Usticke is the driving force behind a large-scale project to improve the look and feel of the Riverlands Industrial Estate. The company has paid for concept plans to be drawn for green spaces, plantings and restoration of riparian areas to improve the environment and make it more appealing for workers and visitors. This will be progressed through engagement with neighbours and iwi.

Fuel savings: WineWorks is located near its major customers including Giesen, Constellation, Vinlink and St Clair who pipe their wine direct for bottling, which saves on transport and fuel costs. WineWorks also advise customers on the best glass/weight and packaging to improve the use of container space and reduce transport costs.

Community involvement: WineWorks sponsors the Foundation for Youth Development, Outward Bound scholarships, provides pallet firewood for charities, and sponsors the annual Marlborough Wine Race which sails across Cook Strait to deliver the new-release Sauvignon Blanc.

PROBLEMS AND HOW THEY HAVE BEEN TACKLED

- **Inefficient and expensive lighting:** A programme has been instituted to replace old lights with LEDs which have a longer life, use less power, generate less waste and provide a safer working environment.
- **Forklift power consumption:** 40 state-of-the-art forklifts have been purchased that self-charge the battery when braking and lowering loads.
- **Managing waste streams:** Raising staff awareness, use of continuous improvement principles and developing strong partnerships with suppliers and local businesses to reuse and recycle.
- **Multiple audits and compliance requirements:** WineWorks' environmental policy and data collection helps address the many different auditing and compliance standards of their 120 customers.

SUMMARY

The company's move to more sustainable practices started "organically" rather than as a conscious strategy. Some of the initiatives are cost driven, others have been the result of customer queries and accountability to auditing agencies.

As the judging visit proceeded, it became clear that WineWorks are doing more than they think. Lean manufacturing and continuous improvement is well embedded with new ideas and initiatives being encouraged. Staff are measuring and reporting many environmental parameters as part of their KPIs, providing good baseline data from which to gauge future progress.



Water and electricity consumption per case produced are showing a downward trend as environmental initiatives start to have an impact. The decrease in waste to landfill at a time when production is increasing is also an admirable achievement.

Community engagement, particularly championing the Riverlands Industrial Estate Revitalisation Project, shows WineWorks goes beyond "business as usual" and has a good understanding of the triple bottom line – social, environmental and financial results.

As well as improving their own environmental performance, as a large player WineWorks are in a position to influence their suppliers and advise customers on more environmentally friendly options for bottling, packaging and transportation.

SUGGESTIONS

- Focus on the Reduce part of "Reduce, Reuse, Recycle". Continue to challenge and influence your suppliers to find ways to reduce waste streams. Recycling is the last option. Become a member of The Packaging Forum to share ideas, pick up technical knowledge and influence the big players nationally. www.packagingforum.org.nz
- Benchmark yourself against a similar business, possibly in Australia, for water-saving measures. Consider using gas to remove dust from bottles. Seek ways to recycle and reuse rinse water e.g. for customers to clean tanks, or irrigation for the Revitalisation Project.
- Look overseas for data to see how WineWorks compares with other bottling facilities on environmental standards. Seek best practice – e.g. rainwater capture off the roof; wind and/or solar power generation. Dominion Salt in Grassmere are happy to share their experience of installing a wind turbine.
- Install meters to pinpoint electricity usage: where, when and how much is being used in each part of the operation. This finer data could help drive improvements, such as installing sensor lights where appropriate.
- Let people know about WineWorks' environmental initiatives and achievements –share with staff, customers and public and include on your website.
- Acknowledge and promote the relationship between compliance and sustainability. Write an environmental policy that includes objectives and aspirations, not just nitty-gritty compliance, to encourage staff to understand and reduce environmental impacts.