Australian Packing Covenant Action Plan
January 2015 - December 2017
### Authorised by:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Director</td>
<td>Darren De Bortoli</td>
<td>30/09/2015</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>Rob Glastonbury</td>
<td>29/09/2015</td>
</tr>
<tr>
<td>Health, Safety &amp; Environment Manager</td>
<td>Lindsay Gullifer</td>
<td>30/09/2015</td>
</tr>
<tr>
<td>Supply Chain Manager</td>
<td>Petra Suelmann</td>
<td>31/08/2015</td>
</tr>
</tbody>
</table>

Prepared by: Petra Suelmann  
Creation Date: 22/01/2011  
Last Updated: 31/08/2015
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1. Executive Summary

De Bortoli Wines has been a signatory of the Australian Packaging Covenant since 2002. The introduction of the new covenant in 2010 has resulted in the need to produce a new action plan, which was revised in 2013 and 2015 to include renewed opportunities under the Covenants KPI’s. The De Bortoli Wines Action Plan attempts to consider all aspects of the Australian Packaging Covenant and produced actions for all areas where De Bortoli Wines can see an opportunity for change.

There is no doubt that climate change means there is an urgent imperative to adopt environmentally sustainable practices. Our future lies in looking after the health of our soils and plants and carefully managing our precious water resources. De Bortoli Wines has made a serious commitment to the environment, going well beyond mandatory requirements by adopting a wide range of innovative programs and practices. These encompass water management, biological farming, including the use of compost tea and compost and mulch as well as packaging and waste management. The ultimate goal is to be ‘The Zero Waste Wine Company’.

We have changed our thinking and our approach to growing grapes and making wine, moving towards biological farming practices. The change has been both philosophical and pragmatic in terms of sustainability and environmental responsibility but also by improving our soils, the result is healthy fruit producing better quality wine, and ultimately a healthier bottom line.

Our new philosophy is driven by our desire to leave a legacy for future generations, an idea that has resonance for any family-owned company.

The introduction of the lean and green bottle as well as proposed investigations into alternative packaging indicates that the next several years will be exciting for the company. De Bortoli Wines believes that any actions that can result in less use of resources or the reuse of a resource can only be of benefit for the whole community. The actions and programs that have been employed over the last several years has resulted in De Bortoli Wines receiving several renowned sustainability awards.

In 2013 De Bortoli Wines installed and commissioned a 230 kW solar PV system and a 200 kW solar Hot water system. Current expectations are the solar PV will produce 1000 kW of power per day. This will be used to offset a portion of the power currently used for refrigeration. Solar Hot water will be utilised for cleaning and sterilising packaging equipment. The above installations are part of a whole of winery capital project which aim is to lower our usage of non renewable resources or increase our efficiency in the utilisation of non renewable resources.
FUTURE WORKING FOR
A SUSTAINABLE

Future where great wine and a healthy environment can be enjoyed by everyone.

We are committed to improving environmental responsibility to safeguard a

The De Bortoli vision and philosophy
our vision has become an integral part of sustainable business for future generations, reducing

For a family owned company looking to create a

2018
2014
2012
2010
2008
2006
2005
2004
2009
2007
2006
2. Background

2.1 Australian Packaging Covenant Background
De Bortoli Wines is a family operated wine company. It was established in 1928 and in that time has grown to be one of Australia’s premier wine companies. De Bortoli Wines has been a signatory to the Australian Packaging Covenant since 2002. During this time De Bortoli Wines has made significant changes to their packaging and recycle initiatives at their sites.

2.2 Period of the Action Plan
This action plan is for the period from January 2015 to December 2018. Reporting will be annually by calendar year. De Bortoli Wines will report against both its action plan and the covenant KPI’s. The action plan shall be reviewed as required and updated as covenant or company direction changes.

2.3 Company Profile
Family owned De Bortoli Wines is one of Australia’s largest private wine companies. From vineyards throughout Victoria and New South Wales a wide range of premium wines is produced including red and white varietal wines, sparkling wines, fortified wines and the iconic Noble One Botrytis Semillon, Australia’s benchmark sweet white.

Established in 1928 by Vittorio & Giuseppina De Bortoli, the company was expanded by their son, the visionary Deen De Bortoli. Today the company is in the capable hands of the third generation. For more than 75 years the family tradition of sharing good wine, good food and good times with family and friends remain unchanged.

De Bortoli Wines is the second largest family owned wine company in Australia and packages 45-60 million litres of wine per annum. More than 50% of the packaged product is sold and consumed within Australia.

The company is classified as a brand owner under the covenant classification.
3. De Bortoli Wines company statement and risk management policy

3.1 De Bortoli Wines - Company cultural statement

SEMPER AD MAJORA
‘Always striving for better’

WE WILL DEVELOP A CULTURE OF:

INTEGRITY
- Working together in the long term interests of the company
- Avoiding conflicts of interest
- Treating all stakeholders fairly

FLEXIBILITY
- Able to capture opportunities
- Open to ideas
- Thinking outside the square
- Receptive to change

COMMUNITY
- Sense of belonging
- Ensuring a cooperative workplace

OPENNESS
- Open communication
- Talking straight

OUR BUSINESS IS DRIVEN BY:

OUR PEOPLE

PROFITABILITY & SUSTAINABILITY

BRAND HEALTH

GLOBAL BUSINESS

INNOVATION & TECHNOLOGY

CORPORATE GOVERNANCE & RISK MANAGEMENT

OUR INTENT IS TO:

- Attract, develop & retain the right people
- Empower and trust our own people
- Support and embrace change
- Provide a rewarding and fulfilling work environment

- Provide return on investment
- Extract value from the business
- Maintain asset health and effectively manage our resources

- Protect our brand integrity and corporate image
- Maximise Market Share and Margin Potential
- Capture Niche Opportunities

- Achieve, and be recognised for achieving, global standards
- Achieve an expansion in our Export Base

- Seek diverse business opportunities
- Maintain a commitment to Open Standards
- Maintain technology at the leading edge

- Ensure legislative compliance
- Strive to minimise business risk exposure
- Implement and maintain systems of control
3.2 De Bortoli Wines - Risk management policy

De Bortoli Wines Corporate Governance and Risk Management Policy

The De Bortoli family aim is to create a resilient long-term business with a zero harm or injury target. A workplace culture of integrity and flexibility with a strong sense of community and openness, where all staff act ethically, manage business risks appropriately and always seek to improve the business, forms the foundation of this business model. All staff must understand the legal framework within which they work and the potential risks to which both the business and they themselves are exposed and that they are empowered to manage those risks.

The De Bortoli Family Motto: Semper Ad Majora
"Always striving for better"

Our process is to:
- Identify the legal and regulatory frameworks within which we operate.
- Meet or exceed legal and regulatory requirements in the markets in which we operate.
- Identify and document the risk profiles of our business activities, then declare how we will manage those risks.
- Set and meet targets of zero harm or injury.
- Provide the appropriate training and hold people accountable in these activities.
- Test, Measure and Audit our business activities.
- Obtain third party certification as appropriate.
- Maintain a Risk Management System.

The Standards to which we intend to operate.
The Risk Management System intended to meet the core requirements of the following:

Risk Management
- All De Bortoli Sites are to maintain a risk management system and are encouraged to extend on the minimum requirements of the risk management system commensurate with the risk profile of their business activities.[1].

Quality and Food Safety
- De Bortoli Staff are to work to ensure that the business is seen as a “Trusted Supplier”, over delivering on “quality for value”, delivering in Full, on Time and in Specification with a working ethic of “Don’t take it, Don’t make it, Don’t send it”.[2]
- De Bortoli Staff are to work to ensure that our products meet our customer expectations and are fit for intended use.[3]

Occupational Health and Safety
- De Bortoli Staff are to work to ensure that the business is seen as a “Trusted Employer” conducting as a minimum Job Safety Risk Assessments for all business tasks, utilising OH&S Consultative processes and applying a Duty of Care to all employees.[4]

Environmental
- De Bortoli Staff are to work to ensure that the business is seen as a “Trusted Business and Neighbour”, understanding our environmental aspects and acting to minimise our impacts.[5]
- Our focus is to minimise our impact to air, water and land, managing our carbon emissions and carbon offsets, our water usage and dispersal and within our farming properties encouraging biodiversity, managing salinity and improving amenity.

Corporate Social Responsibility
- De Bortoli Staff are to work to ensure that the business is seen as a “Trusted Corporate Citizen”.[6]

De Bortoli Wines Managing Director:  Date: 18/6/2012

Semper Ad Majora: "Always Striving For Better" 1 of 1  Modified Date: 13/08/2015

FOUR GENERATIONS OF WINEMAKING
3.3 Appointed covenant representative

For further information on the Australian Packaging Covenant or any other related matter please contact:

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Bilbul NSW 2680
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Mobile: 0428 643971
Fax: 02 69660199
Email: petra_suelmann@debortoli.com.au
4. De Bortoli Wines brands and packaging types

4.1 Brands owned by De Bortoli Wines

<table>
<thead>
<tr>
<th>Noble One</th>
<th>Sacred Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Noble</td>
<td>3 Tales</td>
</tr>
<tr>
<td>Veuve Forny &amp; Fils</td>
<td>Sheep Shape</td>
</tr>
<tr>
<td>Este</td>
<td>The Accomplice</td>
</tr>
<tr>
<td>Rococo</td>
<td>Regional Classic</td>
</tr>
<tr>
<td>Divinci</td>
<td>Vinoque</td>
</tr>
<tr>
<td>Prosecco</td>
<td>Lorimer</td>
</tr>
<tr>
<td>Emeri</td>
<td>Vivo</td>
</tr>
<tr>
<td>Jean Pierre</td>
<td>Willowglen</td>
</tr>
<tr>
<td>Trevi</td>
<td>Rumba</td>
</tr>
<tr>
<td>Single Vintage</td>
<td>Father O’Leary’s</td>
</tr>
<tr>
<td>PHI</td>
<td>William’s Pale Ale</td>
</tr>
<tr>
<td>Riorret</td>
<td>Premium Reserve 2L</td>
</tr>
<tr>
<td>De Bortoli Estate Grown</td>
<td>DB Premium 4L</td>
</tr>
<tr>
<td>Yarra Valley Villages</td>
<td>DB Gold Seal 4L</td>
</tr>
<tr>
<td>Melba</td>
<td>Yarra Valley Regional Reserve</td>
</tr>
<tr>
<td>La Boheme</td>
<td>Gulf Station</td>
</tr>
<tr>
<td>Bella Riva</td>
<td>Palette Series</td>
</tr>
<tr>
<td>Windy Peaks</td>
<td>DB Reserve</td>
</tr>
<tr>
<td>Deen Vat Series</td>
<td>DB Family Selection</td>
</tr>
<tr>
<td>La Bossa</td>
<td>Woodfired</td>
</tr>
</tbody>
</table>
4.2 Packaging Group

Products packages for the global market by De Bortoli

<table>
<thead>
<tr>
<th>Product description</th>
<th>Pack size litres</th>
<th>Packaging used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine cask</td>
<td>2</td>
<td>Carton, foil laminate inner, shrink film</td>
</tr>
<tr>
<td>Wine cask</td>
<td>4</td>
<td>Carton, foil laminate inner, shrink film</td>
</tr>
<tr>
<td>Wine cask</td>
<td>15</td>
<td>Carton, foil laminate inner, carton sticker (not all)</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>2</td>
<td>Carton, divider, glass, screw cap, label, carton sticker (not all)</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>1.5</td>
<td>Carton, divider, labels, carton stickers (not all), plain glass, screw cap or cork, shrink on</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>0.75</td>
<td>Carton, canister (not all), divider (not all), labels (not all), carton stickers (not all), plain glass or printed glass, screw cap or cork and shrink on</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>0.375</td>
<td>Carton, divider, labels, carton stickers (not all), plain glass, screw cap or cork and shrink on</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>0.2</td>
<td>Carton, divider or next, labels (not all), plain glass, screw cap</td>
</tr>
<tr>
<td>Wine bottle</td>
<td>0.187</td>
<td>Carton, divider or nest, labels (not all), plain glass, screw cap</td>
</tr>
<tr>
<td>Beer bottle</td>
<td>0.33</td>
<td>Glass, crown seal, carton, nest, labels</td>
</tr>
</tbody>
</table>
5. Packaging review

5.1 Categorisation of components
De Bortoli Wines has reviewed all component categories for all brands to meet the requirements of the packaging covenant. This review entails the mechanism to audit all products against the Sustainable Packaging Guidelines through based on below Sustainable Environmental Assessment principals:

![Diagram showing the integration of environmental and sustainability issues in decision-making processes.]

Modifications of component categories is built into DBW's standard Product Development processes and are updated periodically to check relevance, where in- and outputs are tested with suppliers. See example below:
5.2 Action plan 2015 - 2017

An Action Plan has been developed that encompasses the aims of the packaging covenant. The plan centres around a total review of all packaging with respect to environment and ease of recycling. The Action Plan will be driven throughout De Bortoli Wines through the Planning Department and the Recycling and Sustainability Committee.

De Bortoli Wines has been a covenant signatory since 2002 and in the time has achieved savings through changes to packaging as well as driving change in recycling with in the winery. This along with a training program on recycling and the environment has resulted in a culture change where employees are proactive in the re-use, reduction or recovery of resources.

This Action Plan is the third revision in five years with the aim to keep the plan relevant giving us an opportunity to respond to changing conditions and environments and promote continuous improvement.
Appendices: I. Australian Business Awards Sustainability Winners 2015

EMBARGOED 14TH AUGUST 2015

TRANSFORMING BUSINESS AT THE AUSTRALIAN BUSINESS AWARDS 2015

De Bortoli Wines has been recognised as an ABA100 Winner in The Australian Business Awards 2015 for Sustainability. The award recognises De Bortoli Wines’ achievements in implementing its ‘Re-Engineering Our Future for a Carbon Economy Project’, as part of its goal of becoming a zero waste winery. Since it began in 2011 with a $4.8AUD million grant from the Australian Federal Government’s Clean Technology Food and Foundries Investment Program, complementing $11AUD million invested by the De Bortoli family, the project has seen the installation of the largest solar panel array of any Australian winery at that time and a focus on minimising waste, maximising water efficiency and reducing energy consumption in all areas of business. Based around eight key sustainability initiatives, the project is enabling De Bortoli Wines to reduce its energy footprint, while maintaining the quality of wine being produced.

De Bortoli Wines Managing Director Darren De Bortoli said the ABA100 Winner in Sustainability award reflected the business’ sustained focus on continued and innovative environmental practices. “We are committed to improving environmental responsibility to safeguard a future where great wine and a healthy environment can be enjoyed by everyone,” said Mr De Bortoli. “Being named an ABA100 Winner for Sustainability is recognition of the hard work the De Bortoli team has done over the last few years to build and grow a business that is dedicated to reducing its impact on the environment, while continuing to produce premium, affordable wines for consumers in Australia and around the world. It is satisfying to once again be recognised by our peers as a leader in sustainable practices.”

Ms Tara Johnston, Program Director, says. “For a decade, The Australian Business Awards have conducted knowledge building programs which focus on organisations that prioritise innovation and technology as they continue to drive local and international markets.

“The ABA100 Winners have demonstrated innovative, enterprising and technologically advanced business initiatives and products that support an obvious transformation coinciding with the ever-changing, highly competitive business environment.

“High-performing, intelligent organisations that continuously and effectively improve their processes and products are set to survive the long term challenges faced by all Australian businesses,” Ms Johnston added.

Each year the ABA100 Winners are recognised through a variety of different award categories that demonstrate business and product innovation. Corporate, government and non-government organisations are acknowledged for implementing well-managed industry leading initiatives and for the research and development of high-performing products and services.

Businesses initiatives are evaluated utilising the POEM Assessment Module via a detailed analysis of the method, execution, performance and outcomes of their initiative. Products including platforms, software, knowledge, systems, services, Information and devices are evaluated via the PRIER Assessment Module which evaluates their features, end user benefits, research and performance.

For more Information on The Australian Business Awards and the 2015 ABA100 Winners go to www.australianbusinessawards.com.au.

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For further information, please contact:
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debortoli.com.au
Appendices: II. The Utilisation of Waste Water for Sustainable Agriculture

The Utilisation of Winery Waste Water for Sustainable Agriculture

Introduction...

Reclaimed water and other treated effluents are becoming an attractive alternative for agriculture and horticulture in many countries. The United States, Australia, United Kingdom, New Zealand, and the Netherlands are among the leading users of reclaimed water in agriculture. Several papers have been published on reclaimed water and its use in horticulture. Some of the advantages of reclaimed water in agriculture are:

1. Cost-effective and sustainable: Reclaimed water is a cost-effective and sustainable way to irrigate crops.
2. Water-saving: Reclaimed water can help in saving water resources and reducing water usage.
3. Nutrient-rich: Reclaimed water contains nutrients that can be beneficial to crops.
4. Reduced water usage: Reclaimed water can help in reducing water usage and conserving water resources.

Schematic of Waste Water Pretreatment System

Waste Water Analysis

- **Toxins**: None detected
- **EC**: 500 mg/L
- **COD**: 450 mg/L
- **BOD**: 400 mg/L
- **TSS**: 300 mg/L
- **TDS**: 200 mg/L
- **pH**: 7.0

Waste Water Nutrient Load V Crop Nutrient Uptake

<table>
<thead>
<tr>
<th>Crop Type</th>
<th>Nutrient Load (mg/L)</th>
<th>Nutrient Uptake (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomatoes</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Cabbage</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Peas</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Spinach</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Broccoli</td>
<td>5</td>
<td>1</td>
</tr>
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</table>

Waste Water Nutrient Load V Crop Nutrient Uptake

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<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Spinach</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Broccoli</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Comparison of Waste Water Utilisation Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Source Water Type</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation</td>
<td>Reclaimed water</td>
<td>Cost-effective</td>
<td>Nutrient imbalance</td>
</tr>
<tr>
<td>Hydroponics</td>
<td>Reclaimed water</td>
<td>Controlled environment</td>
<td>Nutrient imbalance</td>
</tr>
<tr>
<td>Aquaponics</td>
<td>Reclaimed water</td>
<td>Controlled environment</td>
<td>Nutrient imbalance</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>Reclaimed water</td>
<td>Controlled environment</td>
<td>Nutrient imbalance</td>
</tr>
</tbody>
</table>

Conclusion

In conclusion, reclaimed water can be a viable alternative for agricultural use, providing a sustainable and cost-effective solution. However, careful planning and management are required to ensure the effective use of reclaimed water in agriculture. Further research is needed to understand the long-term effects of reclaimed water on soil and crop health. The adoption of reclaimed water in agriculture should be encouraged to promote sustainable agriculture and water management.

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