Barwon Health Environmental Management Plan

(EMP)

December 2013
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1. CEO STATEMENT

As the Chief Executive of Barwon Health, I am committed to implementing our resource strategy to all departments throughout the organisation and encouraging all staff to adopt the environmental awareness culture necessary to sustaining our quality of healthcare and general living.

I recognise that meeting the challenge posed by climate change and other environmental issues is the responsibility of all organisations and I understand the important role that I play in guiding the growth of Barwon Health if the challenge is to be met. There is a real link between environmental sustainability, climate change and human health and, as health workers, we have a responsibility to work toward achieving the goals set out in our Environmental Policy.

Barwon Health has already achieved benefits through implementing environmental management actions – for example, reduced operational costs, energy and water consumption, effective risk management, cleaning and hygiene practices and improved patient care and recycling actions. There has been tangible improvement in electrical, steam and water consumption, recycling activities and land care management. It is proposed to extend and refine these practices.

I will be seeking actions and practice changes in every department to enable us to achieve our goals and to maintain a comfortable work environment which respects our patients, staff and the community. This can be achieved by minor changes in our daily work, education and continual monitoring of our consumption figures. The following are some of our goals:

- Reduce our carbon footprint by initiating practices that improve environmental awareness and sustainability in accordance with Barwon Health’s “Vision and Values”;
- Improve the environmental sustainability of our operations, planning process policy and procedural development as a core organisation goal;
- Implement our formal Environmental Management Plan (EMP) and the assembling of environmental working parties throughout the organisation.

As an organisation we need to show commitment to the principle of continuous improvement in environmental management. By using this strategy we can build for the future and fulfill our responsibility to care for and protect the environment our organisation functions within and, in doing so, cares for our patients, staff and the community.

Dr. David Ashbridge
Chief Executive Officer
December 2013
2. INTRODUCTION

The Department of Health and Department of Environment and Primary Industry have instigated an energy, water, waste monitoring and recording process for all agencies reporting to the Minister. This requirement also includes in-house development of measures to achieve annual reductions regarding these resources. For Barwon Health this requires a commitment instigated by the CEO for staff and all contractors. All employees and service providers are to be made aware of, participate in and understand the prescribed actions and processes to achieve the reductions as stipulated by the Minister.

The Director of Building & Support Services will initiate this plan through a number of marketing programs for all Barwon Health staff. This program will require staff to participate, to maintain reasonable energy and waste reduction practices and to take on new tasks as deemed appropriate.

The initial roll-out of the program will be undertaken by the Facilities Management Committee who will engage a sub-committee to develop and select ideas to help reduce waste and utility usage.

**Key activities will focus on:**

- Procurement of goods
- Energy reduction practices
- Water utilisation
- Waste separation and recycling practices
- Sustainable land care management

**This will be achieved by:**

- Staff education
- Identification and recognition of leadership champions
- Building and maintaining proactive environmental teams and discussion groups

**Our target will be:**

- Reductions in kilojoules of energy, kilolitres of water and kilograms of waste
- improved land care management
3. OUR SCOPE

Responding to this challenge, Barwon Health has made a commitment to reducing our environmental impacts through adopting an Environment Policy, setting key objectives and targets, developing an environmental management strategy to achieve our goals, and monitoring and reporting our achievements.

Our key commitments and targets that apply to our agency are listed in this document. This strategy describes our Policy, objectives, actions, communications, monitoring and review processes we have adopted. The actions have been developed to:

- be simple to understand and implement;
- integrate with our existing procedures and activities;
- to make the challenge enjoyable to all participants.

This strategy addresses all relevant aspects of the operations of Barwon Health, ranging from the various patient care services to all of the non-patient supporting services and departments. Our agencies services are shared across varied and dispersed campuses in the Geelong and surrounding regions.

Our activities involved in the delivery health services with support include but are not limited to:

- Patient care
- Support services
- Contract labour & materials
- Goods & consumables
Achievements to Date

Barwon Health has implemented, perused and maintained resource reduction practices in various fields both with government and with private sponsorship already achieving considerable results in the following areas:

<table>
<thead>
<tr>
<th>Area of Achievement</th>
<th>Result obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>high level of water conservation</td>
<td>✓ reduction 20ml per annum</td>
</tr>
<tr>
<td>extensive waste recycling and reduction</td>
<td>✓ reduction 30t landfill per annum</td>
</tr>
<tr>
<td>improved cleaning practices</td>
<td>✓ chemicals and microfibre mops</td>
</tr>
<tr>
<td>energy reductions in HVAC and steam</td>
<td>✓ monitoring and 5% reduction</td>
</tr>
<tr>
<td>improved landscaping and gardening</td>
<td>✓ drought tolerant, low maintenance</td>
</tr>
<tr>
<td>improved linen cleaning processes</td>
<td>✓ water and energy recycling and conservation</td>
</tr>
<tr>
<td>resource awareness and education</td>
<td>✓ notices and publications</td>
</tr>
</tbody>
</table>

Barwon Health has won several regional awards within the 2012/2013 period, including the Geelong Business Excellence Award based on the introduction of the Closed Loop Organics Unit at McKellar Centre’s Food Services department. The Unit turns food waste into organic compost and is collected & utilised by external companies to propagate organic fruit and vegetables, resulting in energy and water savings and thereby reducing our carbon footprint.

The increase in recycling has resulted in an extra 4 x 240lt recyclable bins per day = 625kg per week = 32.500t per annum.

This fantastic effort in recycling has reduced our landfill of 7 x 4.5mt skips per week to 3 x 4.5mt skips per week.

Barwon Health Sustainability Video link: http://www.youtube.com/watch?v=FMtwjG0X-3c
4. ENVIRONMENT POLICY

We at Barwon Health believe that it is our responsibility to care for and to protect the environment our organisation functions within. The energy, our water consumption, our waste production and our green living space must be improved and protected. We expect our business partners, suppliers and members of the wider community to join us in this effort.

We will strive to:

- Adopt the highest environmental standards in all areas of operation and to match and exceed all relevant standards and community expectations
- Minimise waste by selecting more environmental friendly products, reduce dependence and encourage frugal use of non-recyclable products
- Educate and train employees and suppliers in good environmental practices and encourage participation
- Constantly assess the environmental impact of all operations to develop procedures, to promote awareness and reduce our carbon footprint
- Engage our consumer representatives for input and feedback
- Periodically review all policies and objectives and will make public our results and performance information

McKellar Centre Eco-Friendly & Drought Tolerant Gardens
## 5. ENVIRONMENTAL PERFORMANCE

### Energy consumption (Geelong Hospital site only)

<table>
<thead>
<tr>
<th>Energy type</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>49,528</td>
<td>52,131</td>
<td>51,301</td>
</tr>
<tr>
<td>Natural gas and LPG</td>
<td>7,069</td>
<td>6,467</td>
<td>6,982</td>
</tr>
<tr>
<td>Other energy types (steam, diesel)</td>
<td>72,109</td>
<td>89,674</td>
<td>80,470</td>
</tr>
<tr>
<td><strong>Total (gigajoules)</strong></td>
<td>128,706</td>
<td>148,272</td>
<td>138,753</td>
</tr>
</tbody>
</table>

### Normalised energy consumption

<table>
<thead>
<tr>
<th>Measure</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy per unit of floor space (GJ/m²)</td>
<td>2.34</td>
<td>2.70</td>
<td>2.52</td>
</tr>
<tr>
<td>Energy per unit of activity (GJ/activity)</td>
<td>0.56</td>
<td>0.64</td>
<td>0.60</td>
</tr>
</tbody>
</table>

*Activities = Separations + Births + Operations + Outpatients + 70% ED Attendances = 231,330
(Acute Site floor space = 55,000m²)*

### Greenhouse gas emissions (all BH sites – energy only, excluding waste)

<table>
<thead>
<tr>
<th>Emission category</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1 (Company owned vehicle &amp; fuel consumption)</td>
<td>5,372</td>
<td>5,170</td>
<td>5,250</td>
</tr>
<tr>
<td>Scope 2 (Purchased electricity &amp; steam)</td>
<td>27,579</td>
<td>26,286</td>
<td>27,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32,952</td>
<td>31,456</td>
<td>32,250</td>
</tr>
</tbody>
</table>

### Normalised greenhouse gas emissions

<table>
<thead>
<tr>
<th>Measure</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions per unit of floor space (kgCO2e/m²)</td>
<td>599.13</td>
<td>571.93</td>
<td>586.36</td>
</tr>
<tr>
<td>Emissions per unit of activity (kgCO2e/activity)</td>
<td>142.45</td>
<td>135.98</td>
<td>139.41</td>
</tr>
</tbody>
</table>

*Based on: 55,000m² / 231,330 activities*
### Water consumption (Geelong Hospital only)

<table>
<thead>
<tr>
<th>Total water consumption by type (ML)</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable water</td>
<td>153,107</td>
<td>129,305</td>
<td>119,894</td>
</tr>
<tr>
<td>Re-used / recycled water</td>
<td>16,000</td>
<td>24,000</td>
<td>24,000</td>
</tr>
<tr>
<td><strong>Total (Megalitres)</strong></td>
<td><strong>169,107</strong></td>
<td><strong>153,305</strong></td>
<td><strong>143,894</strong></td>
</tr>
</tbody>
</table>

### Normalised water consumption

<table>
<thead>
<tr>
<th></th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water per unit of floor space (kL/m²)</td>
<td>3.07</td>
<td>2.79</td>
<td>2.62</td>
</tr>
<tr>
<td>Water per unit of activity (kL/activity)</td>
<td>0.73</td>
<td>0.66</td>
<td>0.62</td>
</tr>
</tbody>
</table>

*Based on: 55,000m² / 231,330 activities*

### Water re-use and recycling

<table>
<thead>
<tr>
<th>Re-use / recycling rate (percentage)</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
<td>19%</td>
<td>20%</td>
</tr>
</tbody>
</table>

### Waste generation

<table>
<thead>
<tr>
<th>Total waste generation by type (Tonnes)</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical waste <em>(inc. anatomical/pharmaceutical &amp; cytotoxic waste)</em></td>
<td>175</td>
<td>185</td>
<td>189</td>
</tr>
<tr>
<td>General waste <em>(inc. sanitary &amp; nappy bins)</em></td>
<td>451</td>
<td>514</td>
<td>494</td>
</tr>
<tr>
<td>Recycled waste <em>(inc. comingled &amp; cardboard bins)</em></td>
<td>350</td>
<td>457</td>
<td>510</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>976</strong></td>
<td><strong>1156</strong></td>
<td><strong>1193</strong></td>
</tr>
</tbody>
</table>

### Normalised waste generation

<table>
<thead>
<tr>
<th>Waste per activity (kg/activity)</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.11</td>
<td>3.77</td>
<td>-</td>
</tr>
</tbody>
</table>

### Waste recycling

<table>
<thead>
<tr>
<th>Waste recycling rate (percentage)</th>
<th>2010-2011</th>
<th>2011-2012</th>
<th>2012-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36%</td>
<td>32%</td>
<td>-</td>
</tr>
</tbody>
</table>
6. ENVIRONMENTAL OBJECTIVES AND TARGETS

Our objectives and targets will be set to improve our environmental performance in key areas. In general terms, these targets will address:

- minimising water and energy consumption, and waste generation
- a preference for procurement of sustainable products and services
- the integration of environmental assessments into key decision-making processes

Management and Communications

1. Promote the Environmental Policy in 2014
2. Develop and extend targets for improving environmental performance for waste and recycling
3. Form environmental teams to manage implementation of the strategy
4. Increase our ability to measure our environmental impacts by establishing data collection systems and processes
5. Integrate environmental assessment into decision-making processes and operations
6. Create a culture which will appreciate and understand reducing our environmental footprint and its benefits
7. Increase our stakeholder and client awareness of our environmental sustainability commitments
8. Report on internal and external achievements annually through the existing publications & website
9. Continue to develop the environmental education program for staff, suppliers and contractors
10. Add sustainability information to our new staff induction package
Energy Consumption

11. Lead by example through reducing greenhouse gas emissions from our operations by a recordable decrease annually

12. Reduce energy consumption from our key activities continuously year on year

13. Continue to monitor and compare the performance of fleet vehicles

Water Consumption

14. Continue the reduction of water consumption through routine maintenance, extend rainfall capture and the implementation of water reducing appliances

15. Increase use of recycled and reclaimed water

Waste Generation

16. Continue the reduction of waste generation

17. Increase proportion of waste recycled

18. Continue waste audits to assess contamination of waste streams

19. Reduce clinical waste generation

Purchasing

20. Integrate environmental specifications into purchasing policy

21. Include key environmental specifications for our procurement of goods and develop and implement an environmental purchasing policy

22. Support suppliers who will take back their products and packaging for recycling or reuse
7. Action Plan

Action plans for the following aspects are presented below:

**Management and Communications**

*Obtain CEO and Executive buy in and sign off by December 2013*

*Drive the Environmental Management Plan through a sub-group from our Facilities Management Committee to allow direct communication to our Executive Directors*

*Inform all Barwon Health Staff of pending actions and assistance*

**Education and Training**

*Teach others to think sustainability*

**Waste**

*Reduce, Reuse and Recycle*

**Energy**

*Switch off, save energy and cut greenhouse gases*

**Travel**

*Travel smart for a healthy environment*

**Water**

*Save water, harvest and recycle*

**Purchasing Choices**

*Think sustainability before purchasing*

**Planning and Infrastructure**

*Plan and build for a sustainable workplace*
8. COMMUNICATIONS PLAN

Communication and publicity of all actions and progress of the implementation of the Environmental Management Plan is to be undertaken by the Director of Communications & Marketing. Regular information fed from the Facilities Management Committee sub-group will provide material for regular posting through our established methods of internal communications. Additional external news and significant reports will also be communicated.

All monitoring and review actions will be recorded and published as appropriate. All achievements and changes will be presented to allow open discussions with the aim of understanding these changes.

Vision

To be Australia’s leading regional health service - building a healthier community

Mission

To provide accessible, high quality health care services to the community of Geelong and the Barwon South Western Region

Respect
For the unique qualities of each individual, family and community, for our partners, the organisation we represent and for each other

Compassion
For the circumstances of the people we care for

Commitment
To facilitate high quality health outcomes by working collaboratively with all stakeholders

Accountability
For all our action and outcomes by working to clear objectives in a transparent manner

Innovation
To lead the way and develop creative initiatives to address the health needs of our community