

*Did you know: Although the 'Carbon Tax' applies to large companies, the cost will be passed down to consumers – the lesson: consume less!*

## **VIBE Property Environmental Assessment, 2013**

The basis behind this Sustainability Report is a little different than most companies. I am currently undertaking a program with Green Steps, a not-for-profit Australian environmental consulting and training provider. With this program, I am required to undertake an internship with a company, to help make their work place more environmentally sustainable. I approached VIBE Property because of their core business values: 'creating a difference, standing alone and leading the way within the Hawkesbury district'. Leanne and Michael graciously accepted, due to their ethical stand on environmental and social issues, as well as it allowing them an opportunity to provide a service beyond the client's expectations. As I am affiliated with Green Steps, and not VIBE property, my findings and views are independent, and I am able to provide a holistic report.

This report is a summary of my findings, and I am presenting them to you, whether you are considering selecting VIBE to sell or lease your property, are a tenant, or simply an interested member of the Hawkesbury community, because they allow public awareness of this business' environmental actions. Sustainability is defined as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs", and therefore applies to all individuals and the choices you make – from opting for reusable sandwich containers rather than cling-wrap, to whom you choose to purchase your property with. In reading this report, you may find things interesting that you can apply within your own home. I have aimed to keep it short and easy to read, so please take the time to have a look.

Yours sincerely,

Olivia Leal

*Did you know: Fluorescent lamps cut greenhouse gas emissions by 75 per cent, while creating as much light?*

*originenergy.com.au*

## ENERGY

### Why this is a focus area

The burning of fossil fuels to create electricity is responsible for releasing carbon dioxide and other greenhouse gases into the atmosphere. Greenhouse gases act as an insulating layer, trapping solar radiation and preventing it from being released into space. This results in global warming and climate change. For example, in the US, 63% of sulphur dioxide emissions (acid rain) were from electricity production, as well as 21% of nitrous oxide (responsible for urban smog). These figures do not include the transportation of the energy, or the cost of inhaling these pollutants. Reducing the amount of energy consumed is the quickest and cheapest way to save energy and reduce global warming.

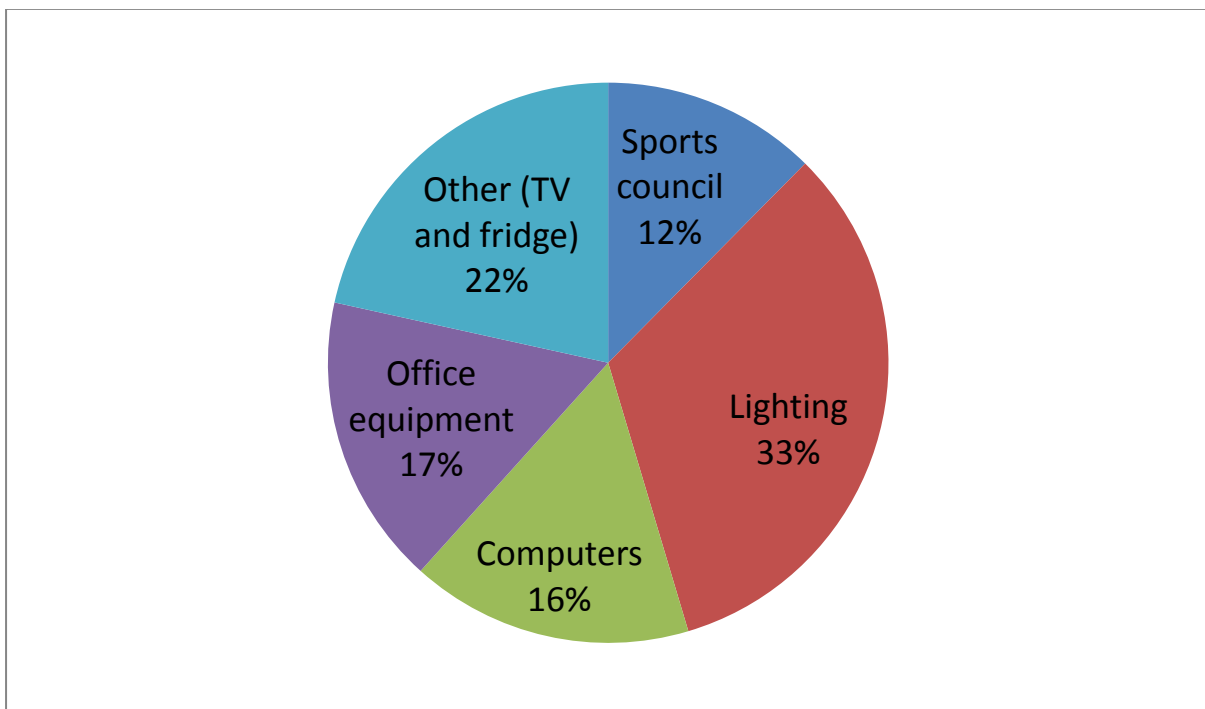
There are many benefits to reducing energy use. These include: longer-lasting reserves of non-renewable fuels; decreased dependence on oil imports; lesser need for military intervention in the oil-rich Middle East, and; increased worker productivity (by 6-16%) due to the office being quieter, more comfortable, and with better air and lighting. It also saves money, especially since the steep increase in oil price since 2003.

### VIBE's results

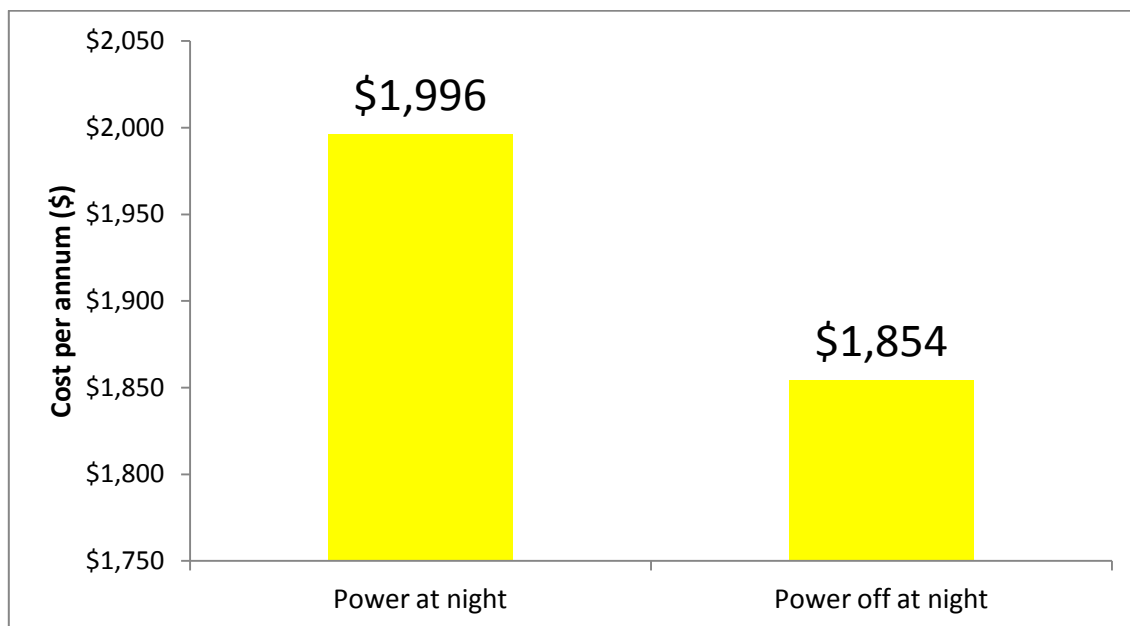
**TOTAL annual usage:** 8375 kWhrs

**TOTAL CO<sub>2</sub> emissions:** 7453.75 (kg CO<sub>2</sub> e)

- **Equivalent to:** driving from Sydney to Perth in an average car 3.6 times!!!



## How energy usage has been reduced in the VIBE office



An energy audit was conducted at VIBE Property, with the intent to reduce power usage in the office. There was more room for improvement in terms of electricity use, than either water or waste.

Lighting is the main user of electricity within the VIBE office. Unfortunately, LUX meter readings show that any less light will be below recommended standards. Energy efficient fluorescent lighting is already in place.

A lot of the appliances, for example computers, are left on full brightness all day, and not turned off at the power-point after hours. To combat this, timers were installed that automatically turn off all appliances after work hours. This has potential to save VIBE property \$142, as well as reducing carbon emissions. The television and computers were placed on sleep mode after a certain amount of time.

To reduce the amount of power used in heating and cooling, door-seals were placed underneath all of the external doors, to buffer against the outside temperature. A sign was also placed on the air-conditioning control, suggesting appropriate temperatures for winter and summer, and reminding reception to turn it off an hour before closing time. Converting the internal heating from electricity to gas was considered, however regulations do not allow it on the office property. This would have reduced costs (after the initial installation cost), as well as being a more environmentally sustainable option. The hot-water service has been turned off, greatly reducing the amount of power.

*Did you know: The average hamburger requires 2,400L of water to produce?*

*environment.nationalgeographic.com*

## **WATER**

### Why this is a focus area

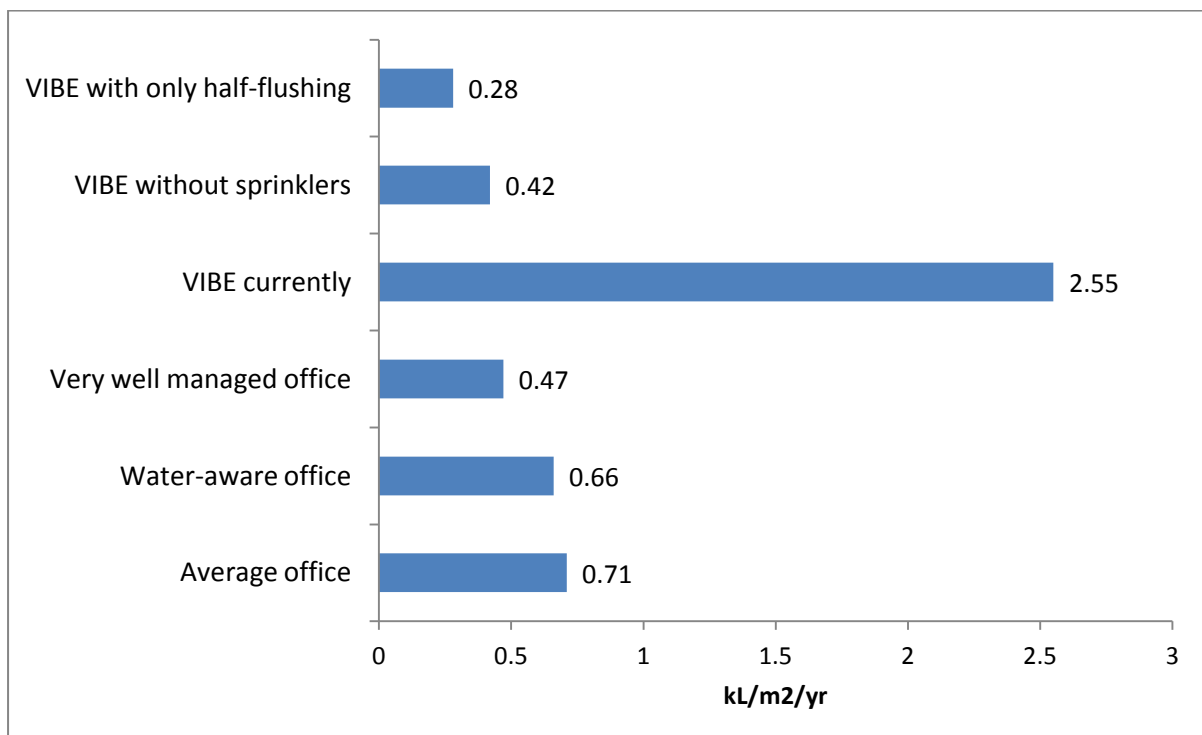
Essentially, only 0.007 percent of the world's water is accessible freshwater available to sustain the 7.1 billion people residing on it. Water is not evenly distributed around the globe. Even when water scarcity does not seem a concern in the immediate Hawkesbury region, elsewhere in Australia there are continuing battles with water quality and quantity.

Sustainability in relation to water use is important because all of our choices and subsequent actions made today will affect the future. If we continue to waste water and pollute our dwindling freshwater supplies, future generations will have no option but to desalinate saltwater or treat contaminated water. There is potential for every organism that relies on clean freshwater to become extinct (Benefits of Recycling, 2013).

### VIBE's results

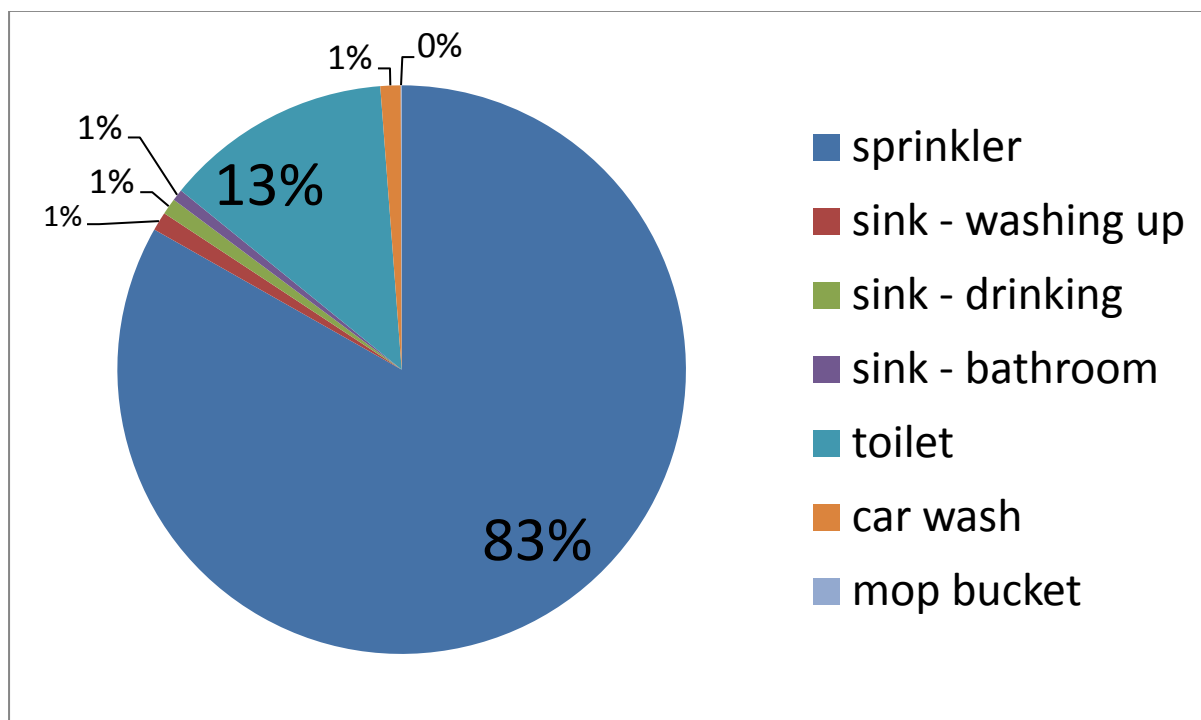
**TOTAL water use per year:** 375 kL

- **Equivalent to:** 15% of an Olympic-sized swimming pool



A breakdown of VIBE's water usage per m<sup>2</sup> compared to an average office, a water-aware office and a very well managed office, also per m<sup>2</sup>.

## How water usage has been reduced in the VIBE office



A water audit enabled the breakdown of the water usages within the office. As a new garden had just been installed, watering the lawn used up a lot of water. Fortunately, the garden is now able to survive without sprinklers, and so water usage has been reduced.

The other key water user is the toilets. Although toilet usage is inevitable, miscommunication meant that staffs were un-aware which was the half-flush button. Signage above the toilet, as well as a water bottle in the cistern, reduced the amount of water used per flush.

Every other aspect of water usage was already reduced at the time of the audit. This included:

- Flow restrictors in all taps
- Very limited dishwashing
- Cleaning is conducted with a small mop bucket of water at the end of each week

Further long-term improvement may be made by utilisation of the well located on the property to water the garden and clean the car. However, research came to no avail on the historic well and information about it could not be found. Therefore, using the well may have more adverse environmental impacts than it solves due to energy used to pump the water.

As a result of the water saving measures implemented, VIBE property will theoretically reduce their water usage in the office by 11%.

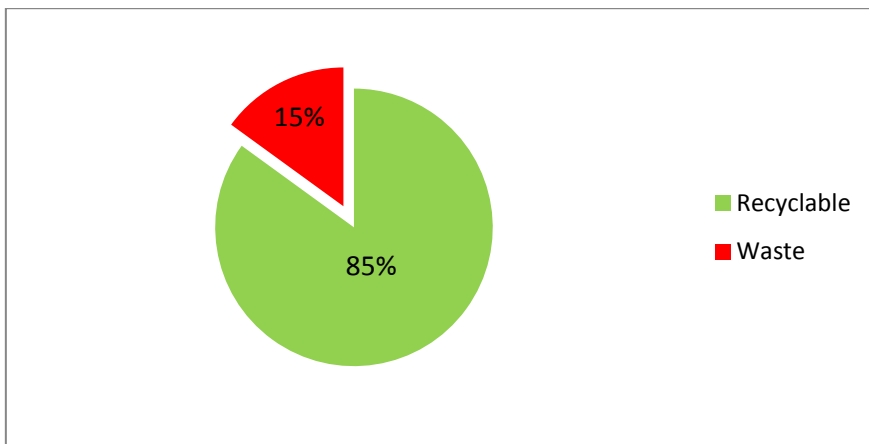
*Did you know: It takes 16 times more energy to make a new aluminium can than it does to recycle one?* [apsenergyconservation.org](http://apsenergyconservation.org)

## WASTE

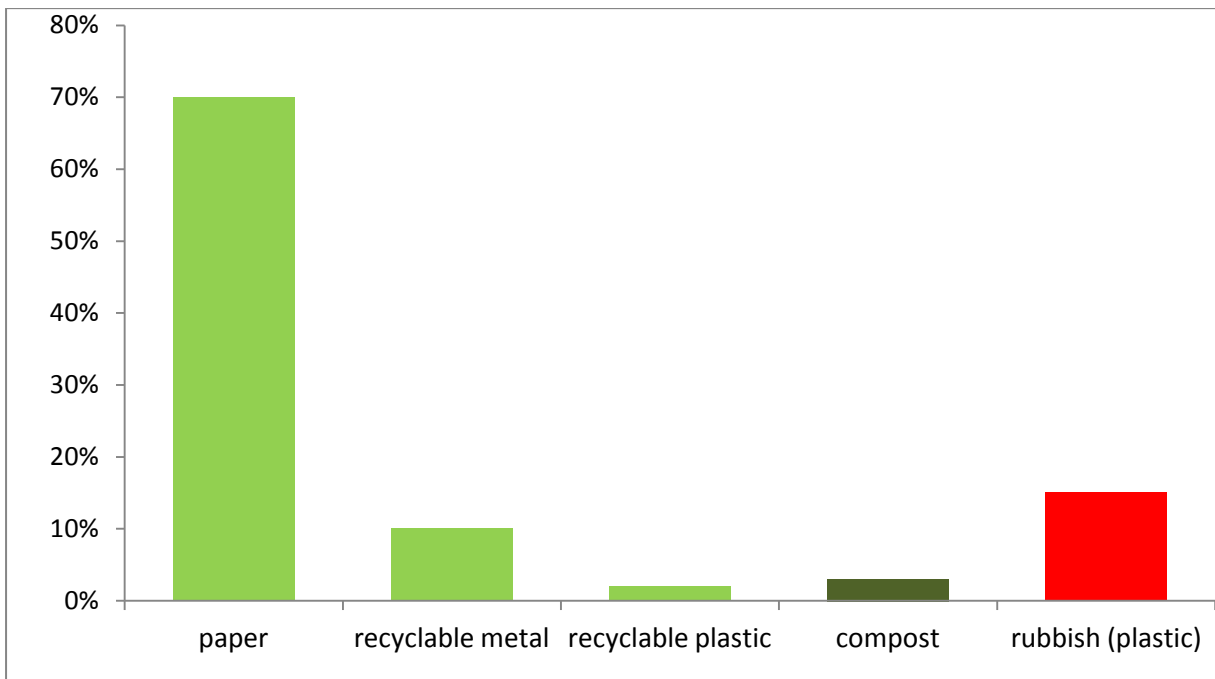
### Why this is a focus area

A combination of industrial development and increasingly consumptive societies has led to an expansive amount of waste being produced, such as 43,000 tons of food per day, as well as 99 per cent of recyclable items. Waste is important for VIBE property as, with any office, paper waste is a large issue.

### VIBE's results



Audit undertaken on the waste bin shows that 85 per cent of the waste is actually recyclable.



A breakdown of the recyclable material in the waste bin.

## How waste usage has been reduced in the VIBE office

A lack of recyclable bins within the office was the reason for most of this waste, particularly in the reception area, where most paper waste is generated. Fortunately with the addition of a recycle bin, this has been amended and the majority of waste is placed in the correct bin. Some paper is also shredded and donated to local pet shops.

Other ways where paper usage has been reduced:

- A policy to print double-sided when possible
- The back of scrap paper is used as a note pad
- Recycled paper was considered but rejected as it looked unprofessional

Corflute signs (the 'For Sale' signs outside a property) are another area of waste, however they are removed by an external company. The signs are of a recycled material, and this company removes the signs after usage to be recycled again.

The 240L black bin has been traded for a 140L bin, as well as having another 240L recycle bin added. This changes the waste service to the 'Preferred Sustainable with Extra Recycling', according to Hawkesbury City Council. Due to the results of the waste audit, with 85% of all the rubbish being recyclable, this option is viable. In the future, if a larger black bin is required, this needs to be implemented as having excess waste is a health and safety hazard.