

BEACONSFIELD DENTAL ENVIRONMENTAL POLICY

- Winner 2018 Premier's Sustainability Award in the Health Category.

- Winner 2015, 2016 and 2017 Casey Cardinia Business Awards for Sustainability and the Environment.

- Finalist 2018 Melbourne Awards in the Contribution to Environmental Sustainability by a Corporation.

- Finalist 2016 Premier's Sustainability Awards Small to Medium Business Category.



Winner Premier's **Sustainability** Awards 2018



Winner

Environmental Sustainability 2016
Beaconsfield Dental

Celebrating business excellence across
the Casey Cardinia Region

www.caseycardinia.com.au/businessawards

 



Winner

Environmental & Sustainability Award 2015
Beaconsfield Dental

Celebrating business excellence across
the Casey Cardinia Region

 



Winner

Environmental Sustainability Award 2017
Beaconsfield Dental

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Beaconsfield Dental is committed to sustainability and preservation of the environment. Our ultimate aim is to become energy and water self-sufficient. This also reduces costs on electrical and water bills.

As a result, a number of measures have been undertaken to achieve this aim. These are:

- Solar panels and solar hot water. Beaconsfield Dental was originally fitted with a west-facing 15 kW (60 solar panel) PV array. As of 22/11/17, another east-facing solar panel PV array was added. This is a 17.7 kW system consisting of 66 solar panels. The new array will take advantage of the morning sun, while the existing array harvests the afternoon sun.
- Water tanks, with a 17,000 litre capacity, for toilet flush and timed garden irrigation,.
- Indigenous plants including Victoria's floral emblem, the Common (Pink) Heath.
- Full building insulation with rating 4 polyester batts in the walls and ceiling. Floor insulation consists of heavy duty foil/foam insulation. Windows are double glazed and the frames are fully sealed.
- LED lighting.
- Selection of energy and water efficient appliances.
- Composting. Six compost bins are available.
- Recycling and waste management.
- Patient and staff education about helping the environment.
- Selection of biodegradable, environmentally friendly products.
- Waste mitigation for all consumables.
- Electric car charger. A Tesla car charger is fitted near the garage.
- Social media, website and internet promotion.

- Booklets in the patient lounge and treatment rooms highlighting sustainability.

Staff Directives

The following procedures are to be performed by staff in an effort to preserve the environment.

1. Reduction of electricity consumption.

A. Turn off all appliances and lights that are not in use or are unnecessary. This applies especially to idle treatment rooms and during lunch breaks. Remember to turn off external lights. If necessary, turn off the heating and cooling.

B. Adjust settings on computers to enter sleep mode after short periods of inactivity.

C. Selecting energy efficient appliances.

D. Do not start autoclaves, thermal disinfectors or ultrasonic baths unless full of instruments. These devices are high energy consumers and must be used judiciously. The thermal disinfectors are rated at approximately 6.7 kWh and the sterilizers 2.5 kWh and together consume almost half of Beaconsfield Dental's electrical usage.

E. Check energy bills and electricity consumption regularly to monitor use.

F. Ensure appliances such as the coffee machine are on sleep mode. Place air conditioners on timers and turn off before public holidays. When autoclaves are on timers, ensure they run at off-peak times.

G. Ensure the external timed lights are adjusted regularly so that they do not run during daylight hours, as the length of days change. Limit the time they are on at night.

H. Analysis of Beaconsfield Dental's electricity consumption by South East Solar revealed inefficient use of heating/cooling systems. This allowed fine tuning of the timers to further reduce electricity consumption. The climate control systems must be constantly monitored to ensure use is kept to a minimum.

I. Ensure the blinds on the west of the building are down during the Summer months and retracted in the cooler months. This blocks sunlight entering the building during Summer reducing the need for cooling.

2. Reduction of water consumption.

A. Ensure taps are maintained to avoid dripping. Turn off taps fully and when not in use.

B. Use half flush buttons on toilets where possible.

C. Set the garden drip irrigation system to operate less days, shorter periods and in the early hours or night to avoid evaporation. Ensure rain delay is operational and stop watering during cooler and wetter months. Turn off if heavy rain is expected.

D. Ensure thermal disinfectors, autoclaves and the dishwasher are full before use, as they use water.

E. Check water bills regularly to closely monitor consumption.

3. Waste Mitigation

A. Staff must be educated in dispensing the least amount of materials necessary.

B. Due to infection control measures, a large amount of waste is generated. Even still, staff must attempt to reduce wastage through avoiding carelessness.

4. Recycling.

A. All products that can be recycled must be recycled. There are recycle bins in the kitchen, reception and garage. All staff must be familiar with what can be recycled. Check if the plastic item has a recycle symbol on the bottom. Recyclable food receptacles should be rinsed or filled with water then placed in the designated bin. Avoid over-use of water while doing this. If the recyclable item is considered contaminated, then it should be handled with gloves to discard safely. If the item is contaminated, then it is acceptable that it can be placed in the garbage for safety reasons.

B. Shredded paper can be composted in the six compost bins. Alternatively, it can be bagged and taken to local pet shops for use as bedding. Credit cards and plastic are not to be shredded as they will not compost.

C. Batteries are not to be discarded in bins. They are to be collected in a designated receptacle located in Sterilization Room 1 and taken to recycling depots. The used battery receptacle is in the drawer in sterilization room 1 where the new batteries are kept.

D. Used printer cartridges can be returned to either printer shops for refilling or collection points such as Officeworks. The same applies to used computers and electrical devices. The receptacle is in the landing in the garage for used cartridges, cabling or electronic devices. The local refuse transfer area collects discarded electronic items.

E. For computer and TV recycling, the National Television and Computer Recycling Scheme provides Australian householders and small business with access to free recycling services for televisions, computers, printers and computer products (such as keyboards, mice and hard drives). Details can be found at: <http://www.sustainability.vic.gov.au/services-and-advice/households/waste-and-recycling/televisions-and-computers>

F. Toxic liquids can be taken to council "Detox your home" programs. Collection points can be found on the Sustainability Victoria website.

G. Amalgam waste is collected in purpose-cartridges canisters. Once full, remove these following the manufacturer's instructions and call an amalgam collection agency to remove for recycling. Take care while handling amalgam capsules and clean up any spillage immediately.

H. Polystyrene can be collected and taken to the local Waste Transfer Station for recycling.

I. Planet Ark also provides information on recycling operations – see the Recycling Near You website at www.recyclingnearyou.com.au or call [1300 733 712](tel:1300733712).

5. Organic matter.

A. All plant and vegetable matter, including coffee slugs must be placed in the black receptacle under the sink. These can then be placed in the six compost bins situated at the rear of the building along with shredded paper. Ensure mixing and varying of items placed in the compost bins. Avoid placing foodstuffs that attract vermin. The compost bins can be topped up occasionally with worms purchased at local nursery suppliers.

B. Compost can be placed onto the garden as mulch at a later date.

6. Garden.

A. Beaconsfield Dental has an indigenous plant policy. They are drought tolerant and attract indigenous fauna. Native plants are acceptable in certain instances. There are photos of some of the plants, decorating the toilets, to bring attention to the importance of indigenous flora. There is also a wall picture in the north corridor displaying Victoria's floral and faunal emblems - Commom (Pink) Heath, Leadbeater's Possum and the Helmeted Honeyeater.

B. The garden should be checked regularly for replacing or adding plants as necessary.

C. It should be mulched regularly. This can be sourced from the six compost bins.

D. The drip sprinkler system should be checked for leaks. The sprinkler system should be programmed to operate at night for once or twice a week, and 5 minutes per section.

E. A list of indigenous plants can be found in the City of Casey "Indigenous Plant Guide" which is kept on the premises.

F. Pick up any rubbish that is found in the car park, garden beds and in the near vicinity of the clinic and dispose of it according to whether it is recyclable or not.

G. As of late 2018, Beaconsfield Dental has added four vegetable gardens at the rear. This not only promotes sustainability, but also encourages healthy eating. Two of the vegetable garden beds include edible indigenous and native plants sourced from Peppermint Ridge Farm. Some of the larger native and indigenous edible plants are planted in the car park garden beds. The clinic possesses a book outlining their cultivation and uses and are sourced from Peppermint Ridge Farm in Tynong North.

7. Staff and patient education.

A. Staff should be trained in these measures and educated on preservation of the environment.

B. Patients should be regularly shown the wireless solar device which displays electricity generation, CO2 saved and money saved. Showing these benefits may motivate them to do the same.

8. Biodegradable Products.

A. Wherever possible, biodegradable and environmentally friendly products are to be sourced. This includes patient cups, suction tips, cleaning products and other items.

9. Paper.

A. Avoid printing hard copies unless absolutely necessary. Use double sided printing where possible.

B. Where possible, use electronic copies of documents such as infection control and material data safety sheets. These are stored on the PC shared server.

C. Share documents using usb devices rather than printing them.

D. If hard copies of documents are necessary, then limit the number of copies.

E. Recycle used paper. Purchase recycled printing paper that is from sustainable forestry sources.

F. Reports, referrals, X rays and other documents are emailed where feasible to further reduce paper consumption.

G. Shredded paper can be sent to local pet shops or composted. For privacy and security reasons, paper must be shredded on occasion to ensure patient confidentiality. Plastic and credit cards are not to be shredded as they will not decompose in the compost bin.

9. Electric Car Charger

As of early 2017, Beaconsfield Dental has installed a Tesla electric car charger for the convenience of our patients. It is located on the southern aspect of the building, right of the garage. The opener to the cabinet is located in the garage, as is the isolation switch. Beaconsfield Dental's address is displayed on the Tesla website, as well as on each individual Tesla car GPS.

10. Internet

Beaconsfield Dental actively promotes sustainability and the environment on both social media and our website. Our website has information on some of the measures Beaconsfield Dental adopts to aid Sustainability and the Environment. This document can be found on the website, as well as on Beaconsfield Dental's Shared PC Server folder. Significant events and general environmental and sustainability posts, such as installing the Tesla charger, are announced on Facebook, Google Plus, Twitter, LinkedIn, Pinterest and Instagram. Beaconsfield Dental also follows important websites such as Sustainability Victoria and Planet Ark on social media.

11. Dental Materials and Consumables.

Dental materials and consumable items e.g. tissues should be monitored for excessive use. This can be achieved by comparison of costs and amounts when purchased, from previous purchases. Staff are instructed to be frugal with items and not dispense excessive amounts. Due to infection control reasons, once a material is dispensed, it must be discarded, hence wasting it.

12. The Future

Beaconsfield Dental continues to strive to improve its environmental sustainability. There is a plan to increase the number of solar panels and water tanks. There is provision for both. There is ample space around and under the building to house batteries for back up electrical power when this becomes feasible. There is a yearly budgetary allocation for additional environmental sustainability measures. Beaconsfield Dental one day aims to be energy self-sufficient and go off grid.

Late 2018 saw the addition of raised garden beds to grow vegetables at Beaconsfield Dental. These beds are watered by a drip feed system directly from the water tanks. This water is unfiltered to provide nutrients for the plants. As the water comes directly from the tanks, it means it bypasses the water meter, but water savings can be measured by the fitting of in-line water meters. Some of the garden beds, as well as the main garden, are to be planted with edible indigenous and native plants. These garden beds promote both sustainability and healthy eating.

There are paintings of Victoria's floral and faunal emblems on the water tanks: Leadbeater's Possum, the Helmeted Honeyeater, the Weedy Seadragon and the Pink Heath. Active promotion of these emblems is vital to their preservation. In late 2018, another water tank was painted with the critically endangered Baw Baw frog. The Baw Baw frog, Helmeted Honeyeater and Leadbeater's Possum are only found in Victoria and are all critically endangered. These paintings are to educate our patients and staff about their plight and help preserve them.

HELMETED HONEYEATER



LEADBEATER'S POSSUM

PINK HEATH



**WEEDY SEA
DRAGON**

BAW BAW FROG

