



Beaconhills College

2023

# OUR GREEN REPORT

Beaconhills College's  
environmental activities.



## ACKNOWLEDGEMENT OF COUNTRY

Beaconhills College acknowledges the Wurundjeri and Boon Wurrung peoples as the Traditional Custodians of this Land on which our College is built.

We honour and respect their ongoing cultural and spiritual connection with this Country which includes Traditional Custodianship of the land, waterways and skies across Australia.

We honour the richness, diversity and sophistication of the cultures of First Nations peoples. We admit with sorrow the wrongs of the past that have taken place and continue into today and that Sovereignty was never ceded. We pay deep respects to Elders past and present and honour the strong leadership that is evident in the emerging Elders of tomorrow.

We recognise that education is the key to unlocking our understanding of Aboriginal and Torres Strait Islander Australia and seek to explore what reconciliation means at Beaconhills College by partnering together and working to build a more just and compassionate society for the traditional owners of this land.

# CONTENTS

MESSAGE FROM OUR BUSINESS MANAGER

OUR VISION, OUR MISSION

RESOURCESMART SCHOOLS

KEY ACHIEVEMENTS

RESOURCE USE

- \* ELECTRICITY
- \* SOLAR
- \* GREENHOUSE GASES
- \* WATER
- \* WASTE
- \* PAPER

GARDENS AND GROUNDS

COMMUNITY ENGAGEMENT

FUTURE PLANNING

## AN IMPORTANT MESSAGE FROM OUR BUSINESS MANAGER

Beaconhills College is pleased to present its annual *Our Green Report* for the year ending December 2023.

This annual report was first produced in 2015. It aims to communicate to our community the College's environmental impact and the initiatives we have in place to continually reduce this impact.

We are acutely aware of our size and the resources we need each year to operate the College. However, we are committed to lightening our environmental footprint.

We are very pleased with the results being achieved, the most notable being that of our total electricity use, about 56 per cent, is now produced by our solar electricity systems and 46 per cent used is sourced from grid-produced electricity. Our aim is to produce all electricity we use onsite. We will achieve this by installing more solar electricity and battery storage systems over the next few years.

In 2024, the College will commission another 130kW solar electricity system at its new Years 7 and 8 Building at the Pakenham Campus and we are currently evaluating battery storage options. At the moment the College produces about 430,000 kW hours of solar electricity at peak production times which is more than we need, and this is returned to the grid for a modest economic return.

The College continues to implement new building design initiatives to make us less reliant on mechanical systems. The new Years 7 and 8 Building at the Pakenham Campus is an example of this, with work done to ensure the building has extra insulation for heating and cooling.

Landscaping and treeplanting is ongoing across the College as part of our landscape master plan and our food gardens help educate students on food production. Our canteens and kitchens use the produce grown onsite, with surplus food donated to charity.

One of the most significant challenges facing the College at the moment relates to the management of waste across both campuses. We continue to educate our community on waste and have developed waste management systems that are easy to understand and use. Despite our best efforts, waste contamination of recyclable materials and general waste remains high, with just over 50 per cent contamination rates. We will keep raising awareness in our community about waste contamination, with the ultimate goal of reducing the College's waste sent to landfill.

Overall, the College is building on its environmental and sustainability achievements. We will keep working to lead and educate our community about this significant global issue.

David Young  
Business Manager

# OUR VISION, OUR MISSION

LEARNING THAT MATTERS



**AT BEACONHILLS COLLEGE, OUR VISION IS TO BE AN INNOVATIVE LEARNING COMMUNITY THAT IS FOCUSED ON**

**LEARNING THAT MATTERS.**

*Learning That Matters* comprises six key pillars; *Environment and sustainability*, *Learning mindset*, *Values and character*, *Wellbeing*, *Citizenship and service*, and *Our global community*.

We want to encourage our students and staff members to be responsible stewards of the environment, for their own future and that of the planet. To care, raise awareness of the natural environment and actively work towards being more environmentally friendly in our everyday lives.

Our vision for sustainability is to embed programs and practices into students' everyday lives to create lifelong sustainable values. We are constantly incorporating ways in our curriculum for students to become 'stewards of the environment'. Beaconhills strives to break sustainable milestones to become one of the leading green schools in the nation.

# OUR MISSION

RAISE AWARENESS

RAISE AWARENESS WITHIN AND BEYOND  
OUR OWN COLLEGE COMMUNITY  
SHOWING RESPECT, COMPASSION AND  
INTEGRITY FOR THE ENVIRONMENT AND  
EVERYTHING THAT LIVES IN IT.

## Why do we care about being green?

The College was founded in 1982 and now comprises more than 3000 students and over 500 staff (from Early Years to Year 12) across our Berwick and Pakenham campuses, and a community exceeding 10,000 members. Beaconhills College recognises the importance of becoming a sustainable school for the benefit of the Earth's environmental health. At Beaconhills College, we need to set an example to our students and the community to demonstrate that we are completely committed to protecting the opportunities and futures of our students. In this endeavour, we are committed to lightening our environmental footprint while creating a cleaner learning environment.

We honour and draw upon the knowledge of the First Nations people and their relationship with the land. We believe that fostering a positive attitude and appreciation of sustainable environmental practice is vital to the development of our students, will contribute towards the health of our community, and reduce our impact on the Earth.

“ *The earth, which we all have in common, is our deepest bond, and our behavior toward it cannot help but be an earnest of our consideration for each other and for our descendants.* ”

*Wendell Berry, The Long-Legged House*

# RESOURCESMART SCHOOLS

ENVIRONMENT AND SUSTAINABILITY PLAN



2010 WAS THE FIRST YEAR BEACONHILLS COLLEGE LAUNCHED AN ENVIRONMENTAL AND SUSTAINABILITY PLAN. IN 2018 THE COLLEGE BEGAN WORKING WITH CERES (CENTRE FOR EDUCATION AND RESEARCH IN ENVIRONMENTAL STRATEGIES) TO BECOME A RESOURCESMART SCHOOL.

The ResourceSmart Schools program covers five learning modules related to Water, Biodiversity, Energy, Waste, and Core. Templates and guidance are given to complete audits, data reporting, action plans, and environmental management plans. There are also a range of activities to complete, such as signage, community engagement and resource efficiency swaps.

Both campuses of Beaconhills College are working with CERES on the ResourceSmart Schools (RSS) program. This free program, funded by Sustainability Victoria, supports Victorian schools to embed sustainability across the school facilities, community and curriculum, while saving resources and money for the school.

As part of the program, both campuses have been accredited in the Core Module, which sets the groundwork for the program and helps evaluate each school’s progress and goals.

The campuses have also been accredited for the Energy Module, which helps schools reduce energy use and save on bills through working on energy conservation, energy efficiency, reducing greenhouse gases and improving air quality.



### CORE MODULE

- 1. Workplace/operational** Create a snapshot of how the school is approaching sustainability by gathering baseline data, reviewing curriculum, infrastructure and daily operations and recognising prior achievements and opportunities for improvement. Use this data to plan how to embed sustainability principles throughout the school and to set up a framework to track the school’s progress and achievements.
- 2. Learning and teaching** Create a plan to build sustainability into teaching and learning to embed sustainability into the curriculum.
- 3. Whole school community engagement** Communicate with the school community about the fantastic work and share learnings to demonstrate leadership in sustainability.

### ENERGY MODULE

- 1. Workplace/operational** Complete a school energy use audit and create an energy plan to manage energy use in the school grounds through retrofitting, new technology and maintenance.
- 2. Learning and teaching** Explore curriculum activities that engage students in learning how to be more sustainable users of energy.
- 3. Whole school community engagement** Engage the whole school in energy smart behaviour and liaise with your community, government, energy networks and/or other schools.

“ Through the RSS program, both campuses have reduced resource use in most areas, which is great for both the environment and the finances of the school. Due to these achievements, the Berwick Campus is a two-star ResourceSmart school, and the Pakenham Campus has three stars. CERES looks forward to working with Beaconhills this year on their Waste Module and congratulates them on their efforts so far. ”

*Kerry Archer, ResourceSmart Schools Facilitator, CERES*

# WASTE HIERARCHY

## Avoid

Identify ways of carrying out a function or task without using materials that generate waste eg. send information electronically instead of on paper.

## Reuse

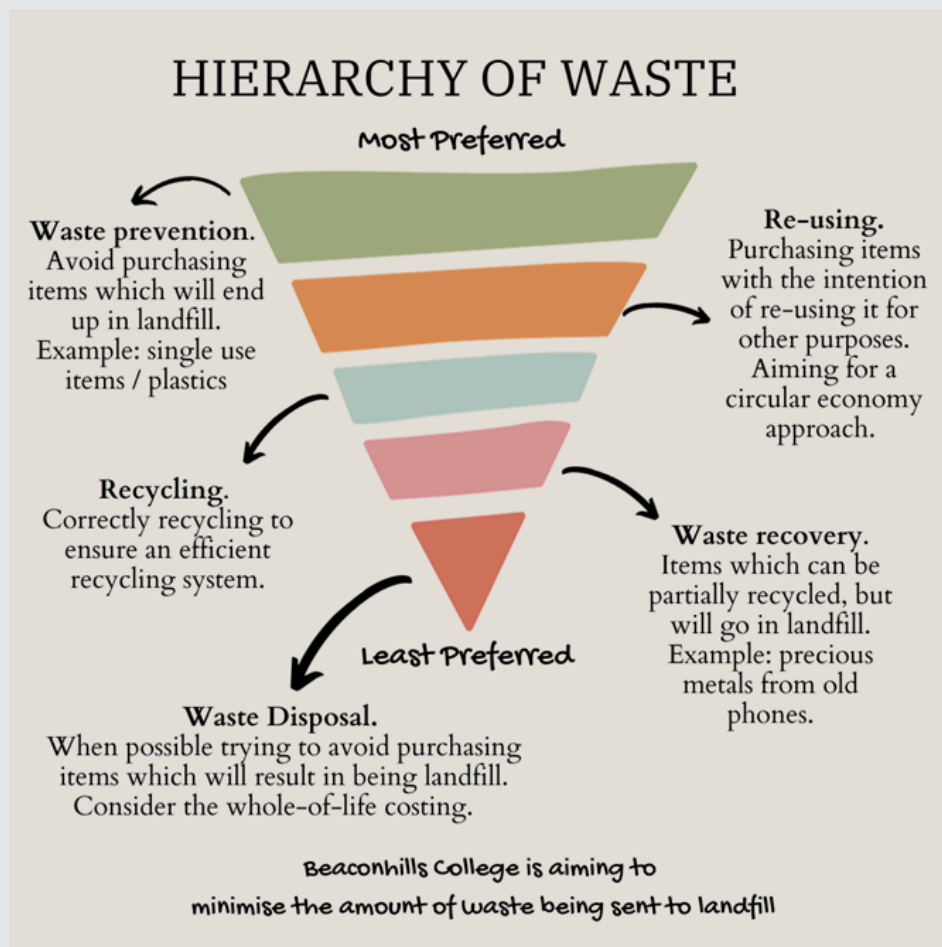
Use the same item more than once and extend the life of products and equipment before replacing them. Aim to reuse or repair existing products. Ensure new purchases are durable, have a long service life and are easy to maintain and upgrade.

## Reduce

Use less in the first place to avoid waste eg. purchase in bulk to reduce packaging and print double-sided copies of documents rather than single-sided.

## Recycle

Purchase products that contain recycled materials or those that have or can be re-manufactured or recycled.





# AIMING FOR GREENER EVENTS AND PROCUREMENT

THROUGHOUT 2023, BEACONHILLS COLLEGE UPDATED POLICIES TO INCLUDE MORE ENVIRONMENTALLY SUSTAINABLE PROCESSES. THESE POLICIES INCLUDE THE FUNCTIONS AND EVENT MANAGEMENT POLICY AND PROCEDURES, AND THE PROCUREMENT POLICY, ALONG WITH A STAND-ALONE SUSTAINABILITY POLICY.

As well as lightening our own environmental impact, we aim to host events with low environmental impacts. We support other businesses and organisations which are also responsible stewards of the environment. We look to purchase consumables from companies which highlight sustainability in their vision statement and include a competitive rate for their products. When we consider buying items, we first question whether they are really needed. We also prioritise Australian made and owned businesses to cut down on transport emissions for materials. Waste will also be an area of focus in event planning, to try to minimise the amount of waste and ensure it is disposed of correctly.



# KEY ACHIEVEMENTS

2023

## I Can Grow Food Program

At Beaconhills College, the Year 9 Program embodies the spirit of exploration, encouraging students to step out of their comfort zones and immerse themselves in new experiences. The 'I Can Grow Food' sessions introduced in 2023 in line with the College's environment pillar, gave students a unique opportunity to connect with nature and discover the joys of hands-on gardening. Many have thrived in this environment, cultivating not only vegetables but also a deeper understanding of the importance of sustainable food production. Moreover, locally grown produce reduces travel emissions and supports a farm-to-fork approach, minimising carbon footprints and promoting community resilience. The nutritional richness and seasonal variety of campus-grown vegetables not only enhance culinary experiences but also instil in students an appreciation for the environmental and health benefits of eating fresh, locally sourced foods. Beyond the garden, these sessions offer students a sanctuary to unwind, reconnect with nature, and develop critical thinking skills, bolstering mental health and wellbeing. The fruits of their labour are not only enjoyed within our campus community but also shared with those in need through contributions to our local Salvos emergency relief pantry, embodying our commitment to sustainability and community care.

## Single plastic use

Our College canteens made a great effort at banning all single-use plastic items. Where possible, paper straws, wooden cutlery, cardboard trays, and paper bags are used. In 2023, our canteens no longer sold single-use plastic sauce sachets and have distributed reusable sauce bottles throughout the campuses for student use. While the canteens introduced PLA coffee cups which break down in landfill, they encourage the use of reusable coffee cups by offering a 50 cent discount every time a reusable cup is used.

## War on waste

Beaconhills College embarked on a proactive campaign against waste in 2023. Empowering its students, tutor groups devised a weekly rotation system for rubbish pick-ups across all campuses. Complementing these efforts, students delved into the far-reaching consequences of litter, understanding its detrimental effects on waterways, wildlife, and delicate ecosystems. With every discarded wrapper collected, students gain a sense of empowerment, reinforcing the notion that small actions can yield significant impacts. Together, they are not just tidying up their school but fostering a generation of eco-conscious citizens committed to preserving the planet for generations to come.



## Introducing our new Years 7 and 8 Building

In 2023, work began on our new Years 7 and 8 building at the Pakenham Campus.

The new building incorporates a number of environmental design features, including a 490-panel solar array, generating an impressive 196.4 kWh of clean, renewable energy.

The building also houses three underground water tanks with a combined storage capacity of 96,000 litres. The water tanks help conserve water, supplying all internal bathrooms and irrigating our campus gardens without relying on external water sources.

The building faces north which enables it to capture winter sunlight, minimising the need for artificial heating. High-level windows and verandas provide ample light and shade, while reducing energy consumption. Cross-flow ventilation further promotes a healthy indoor environment, ensuring optimal air quality throughout the building.

LED smart lighting systems enable daylight dimming and automatic shut-off, meaning significant energy savings over time. This innovative approach not only enhances illumination but also contributes to significant energy savings over time.

As we look ahead to the official opening of the Years 7 and 8 Building in 2024, we take pride in these key achievements and the positive impact they will have on our community and the environment. Together, we continue to strive for excellence in education while leading the way towards a sustainable future. Our addition of our new building will also set the standard of sustainable building at the College.



# BIODIVERSITY

## YEAR 9S UNDERTAKE A SERVICE-BASED LEARNING PROGRAM CALLED COMMON GOOD

The proliferation of diverse biodiversity corridors on our campuses has already led to a notable surge in native bird species, underscoring the invaluable role of these ecosystems in supporting and sustaining local wildlife populations. Nurturing native species is crucial for maintaining the delicate balance of our ecosystems, promoting biodiversity, and preserving the unique natural heritage of our region for future generations to enjoy.

Following the restoration of our Pakenham Campus pond, which has created a new enhanced habitat for native species visiting the College, and ongoing efforts in indigenous planting across both campuses, Beaconhills College has witnessed a remarkable resurgence in the diversity of native flora and fauna. The restoration of the pond in 2022, followed by indigenous planting along its banks in 2023, has transformed it into a sanctuary for native species such as the striped marsh frog. This is now a thriving haven for native frogs and birds.

The College continues to integrate indigenous plant species into landscaping plans to further support native wildlife. This proactive approach extends beyond our campus grounds, as evidenced by our commitment to monitoring the output of our waterways to support the local Western Port Bay ecosystem. With more wildlife observed around campus in 2024, we are excited to trial a new biodiversity project. This initiative will involve students gathering data on the different species found at the College, reflecting our commitment to understanding and nurturing the diverse ecosystems on our grounds.

### Native species observed around the College

---

- *Little wattlebird*
- *Australian magpie*
- *Noisy miner*
- *Indian myna*
- *Red wattlebird*
- *Purple swamphen*
- *White faced heron*
- *Superb fairy wren*
- *New Holland honeyeater*
- *Magpie lark*
- *Australian woodland duck*
- *Purple swamphen*
- *Australian white ibis*
- *Sulphur-crested cockatoo*
- *Little corella*
- *Rainbow lorikeet*
- *Galah*
- *Kookaburra*
- *Red wattlebird*
- *Little raven*
- *Crimson rosella*
- *Striped marsh frog*
- *Pacific black duck*
- *Chestnut teal*
- *Long-billed corella*
- *Masked lapwing*
- *Black-shouldered kite*
- *Pied currawong*
- *Eastern rosella*





## NATIONAL TREE PLANTING DAY

28 July is Australia's largest tree planting and nature care event. The Berwick Campus Preps were busy making their contribution to this day by each planting one to two indigenous seedlings generously donated by Brad Battin MP and Berwick Toyota. The seedlings added to the bush corridor along the railway line. The bush corridor creates an area to protect native flora and fauna from the railway line.

Pakenham Senior VCE Environmental Science students conducted a revegetation planting with plants from the Cardinia Environment Coalition Indigenous Plant Nursery.

Indigenous plants are those which are locally native to the area and help to boost biodiversity. Beaconhills College aims to revegetate this area to create habitat for the local endangered Growling Grass Frog species. Since the planting took place, ducks have been frequent visitors with their 10 ducklings over spring and frogs have been heard at the pond under the boardwalk and have been spotted around the pond.



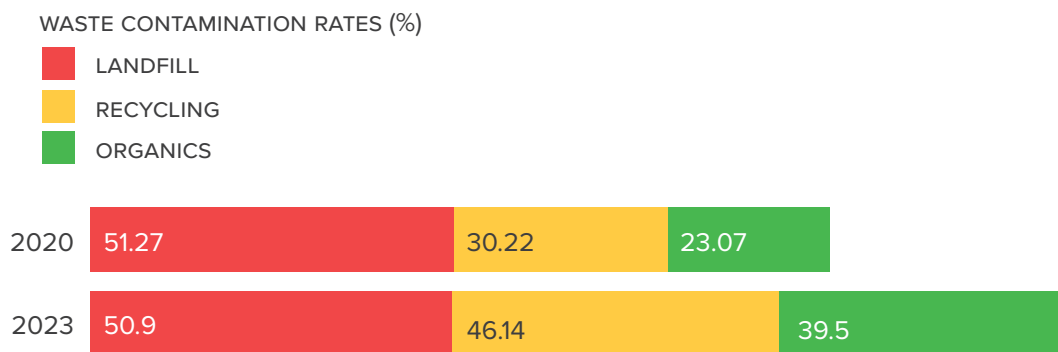
# STUDENT AUDITS

## SCHOOL WASTE

### WASTE CONTAMINATION RATES

As part of our ResourceSmart Schools Program, we undertake litter and bin waste audits at both campuses. The purpose of completing waste and litter audits is to collect data of contamination rates and litter, identify areas of concern, and highlight waste issues including common litter items, litter 'hotspots' and confusion around which items are recyclable (eg. coffee cups). We also brainstormed ways to improve the litter and waste contamination. Student feedback is then used to create a 'waste action plan'.

Students have also been spreading awareness of the dangers of microplastics. As PLA (renewable plant material such as corn starch) disposable coffee cups and cutlery are becoming increasingly popular there is still much misinformation around where to dispose of these new 'environmentally friendly' alternatives. While PLA is a better option than PET for the environment, items such as coffee cups must still go into the general waste bin. This is because PET cups are still used commercially and the waste facilities cannot differentiate between PET and PLA coffee cups. Students are educated on the how to sort items into our three waste bin systems located around the school.





## THE CLEAN TEAM

The Clean Team is a Year 2 class of environmentally-conscious students from our Berwick Campus. This young team is striving to become stewards of our environment by spending lunchtimes collecting rubbish around the campus. The students then sort rubbish into the College's three-bin system; commingle recycling, compost and general waste. This demonstrates first-hand to students the effects of pollution in their own school and their personal contributions to responsible waste management.



# RESOURCE TRACKING

AIMING FOR EFFICIENCY

## SUSTAINABILITY EFFICIENCY PROGRAMS AND POLICIES

Beaconhills tracks all utility data across all areas of usage. We believe the best way to accomplish our mission of a green sustainable school is to continue to set benchmarks and of our sustainability efficiency programs and policies. Evaluating our performance and effectiveness through utility tracking against our targets and outcomes is a critical way to ensure that we continue our progress towards our sustainability goals.

Across all the graphs showing our usage data you can observe a disruption in the data during COVID lockdowns when student attendance was limited. We face the challenge of having to disregard or give consideration to these years of data when observing ongoing progress and adjusting the attainable goals we set. We continue to include these years in our tracking data but allow ourselves grace when comparing years of success to our current progress.

The rising cost of living has complicated the true reflection of reduced utility expenses achieved through our lower usage of electricity, water, waste and gas, as well as improved solar generation. Recognising this, the College is dedicated to thorough data collection and analysis across all usage sectors, ensuring that our sustainability vision progresses hand-in-hand with economic realities.

Our overall objective at Beaconhills is to transform into a model of sustainability, where solar power becomes the cornerstone of our green, reusable-powered campuses and we continue to lighten our environmental footprint. By integrating solar energy and other eco-friendly measures into our daily operations, we're not only shaping a brighter future for our students but also for the planet.

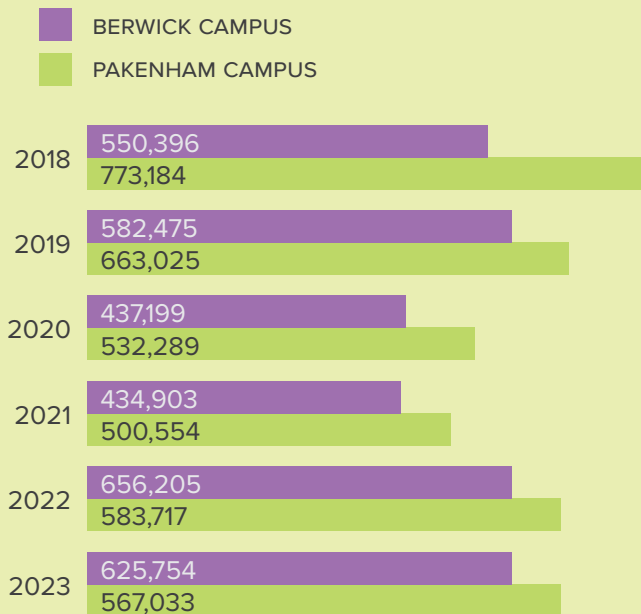


# ELECTRICITY

## ELECTRICITY USE (KWH)

2022 was the first year since COVID restrictions that we experienced a full year of student on-campus attendance. Taking into account the lack of usage in 2020-2021, we can see that the College has still managed to reduce electricity usage across both campuses. With the ever-rising cost of living we are facing, we do not expect any future decrease in energy bills which is why it is important to track our own data to accurately reflect our electricity use.

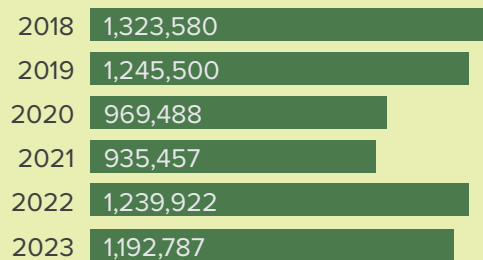
In 2024, we expect to see further electricity reduction with the installation of our new 490 panel, 196.3 kWh solar system on the new Years 7 and 8 Building at our Pakenham Campus.



TOTAL ELECTRICITY COST (\$)

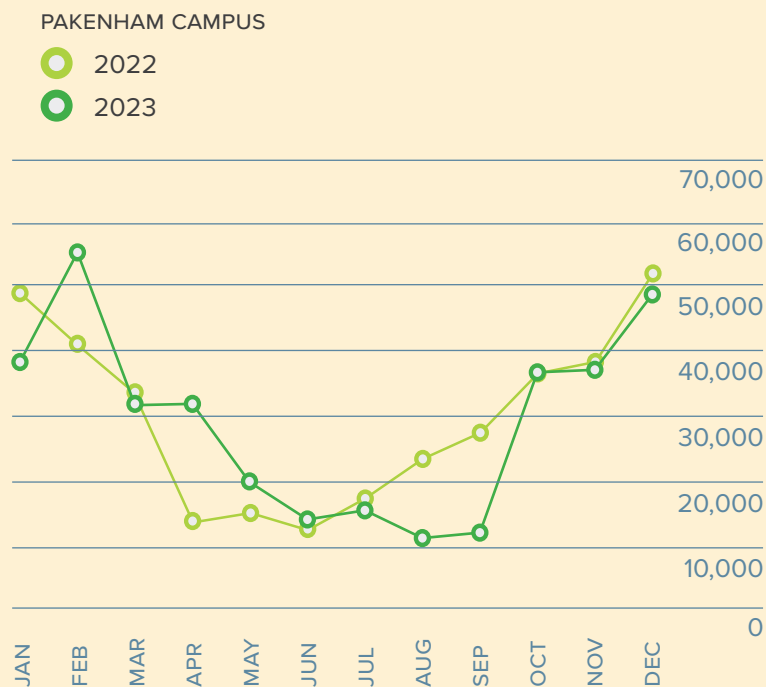
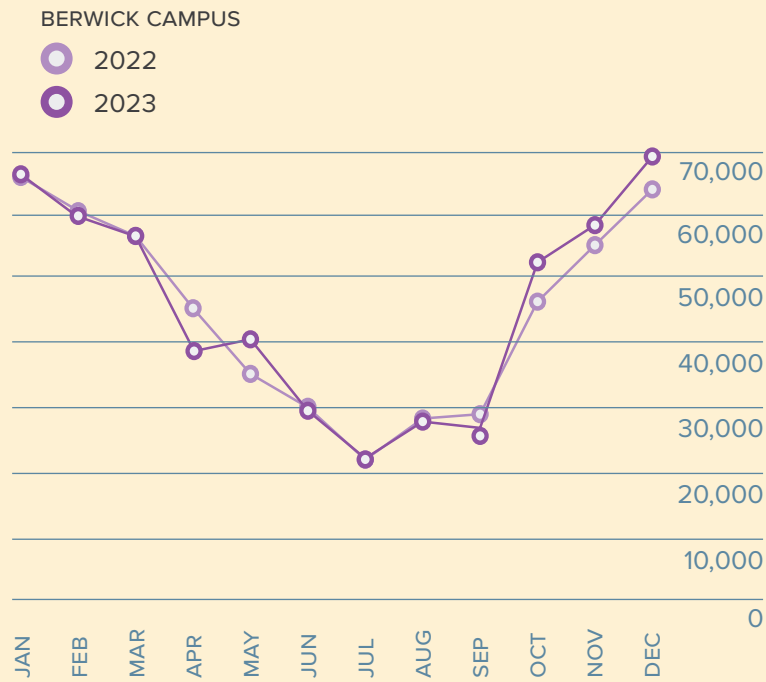


TOTAL ELECTRICITY USE (KWH)



# SOLAR

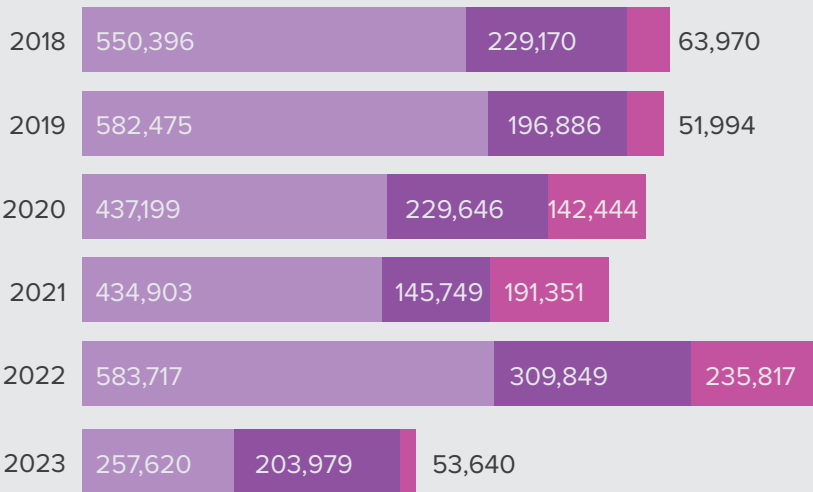
OUR ROOFTOP SOLAR PANELS ARE BECOMING A STEADY RESOURCE OF RENEWABLE ENERGY.





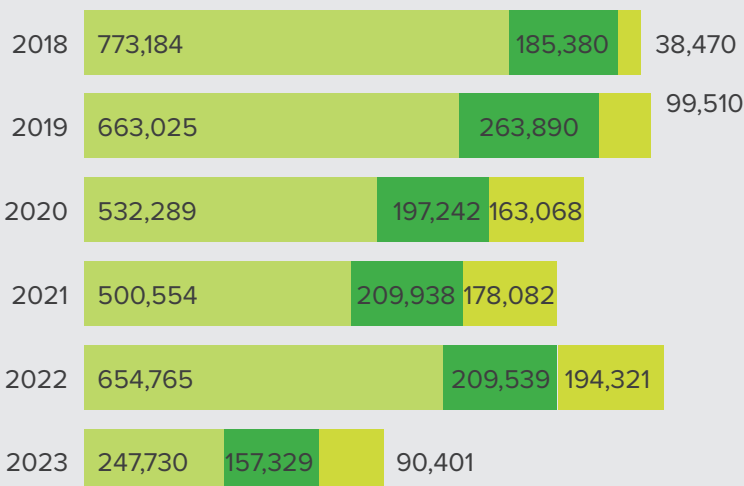
**BERWICK CAMPUS**

- GRID
- SOLAR
- SOLAR FED INTO GRID



**PAKENHAM CAMPUS**

- GRID
- SOLAR
- SOLAR FED INTO GRID



**SOLAR GENERATION (KWH)**

Since 2014 Beaconhills has invested in installing solar panels across both our Berwick and Pakenham campuses; rapidly becoming a steady source of energy at the College. Our Berwick Campus currently has 1964 solar panels that equates to 510.6 kWh system and our Pakenham Campus has 1687 panels (a 530.25 kWh system).

Our tracking shows similar solar use for the past four years across both campuses. Solar use will increase with the installation of our new 196 kWh system at the Pakenham Campus, along with solar batteries in due course.

2023 brought some challenges with our solar tracking system with many inverters going offline and failing to track generation and usage for most of the year. While we were able to recover most data, some months of data were still unattainable. This meant some results were estimated using data from similar months in previous years, where similar sized inverters were used.

Regardless of independent variables such as the La Nina cycle events, seasonal interruptions and other weather conditions, the College has recorded consistent solar generation and use over the past four years Beaconhills only aims to see this by investing in more rooftop panels to work towards our own renewable energy goals along with Victoria's solar energy target of 95 per cent by 2035.

# GREENHOUSE GASES

WE HAVE MANY PROJECTS AIMED AT REDUCING OUR 'THREE SCOPES' OF EMISSIONS, TO HELP LIGHTEN OUR ECOLOGICAL FOOTPRINT.

## The three scopes of emissions are:

1. Direct greenhouse gases produced from burning fuel or gas.
2. Emissions generated from electricity requirements.
3. Other indirect emissions through the organisation's actions such as business travel, transport etc.

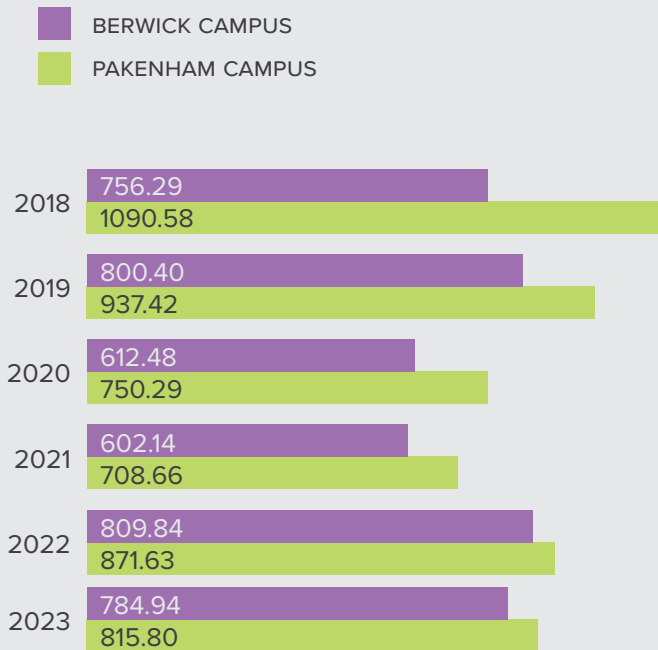
To reduce our first scope of emissions, we are planting trees and shrubs at both campuses and working with local community organisations such as the Cardinia Environment Coalition. This vegetation acts as a carbon sink to extract carbon out of the atmosphere. We are reducing company vehicle use, how much fuel we use and have installed electric car chargers on campus for staff and public use. We have reduced our gas use, as we mainly run on electricity and only use gas in stovetops in kitchen areas.

Our second scope is discussed in more detail in the electricity section of this document.

We are reducing our third scope of emissions by looking at how we contribute to the outside world. This includes the energy required to make products for the College and the transport distance it takes to get to the College.

Firstly, we grow about 35 per cent of the fruit and vegetables we use in the canteens on campus. We source the remaining food locally, from Victorian companies. This ensures we minimise the distance food has to travel getting to the College and the fuel required to transport the food. Secondly, where possible, we source second-hand furniture from local op shops, reducing the energy costs of making new furniture. We only buy from companies which incorporate environmental responsibility into their vision. Thirdly, we encourage the Beaconhills community use public transport and other transport means to come to school, to reduce emissions from parents' vehicles.

## GREENHOUSE GAS EMISSIONS (TONNES CO<sub>2</sub>E)



The total greenhouse gas use was calculated from the total amount of gas and electricity the College uses. Due to gas use being almost negligible, the graph's trend looks very similar to the electricity use graph. Our main plan for reducing emissions is by cutting our electricity use. We have not yet found a time-efficient way to track the College's vehicle emissions, however we know this is a contributing factor in the College's emissions.

**2014:** 100kW solar power systems installed at Berwick and Pakenham campuses.

**2017:** 200kW solar power system installed at Berwick Campus. 3000 fluorescent globes were replaced with LEDs. A new policy was implemented requiring new buildings to have sustainably built infrastructure.

**2018:** 130kW solar power system installed at Pakenham Campus, 4000 fluorescent globes replaced with LEDs.

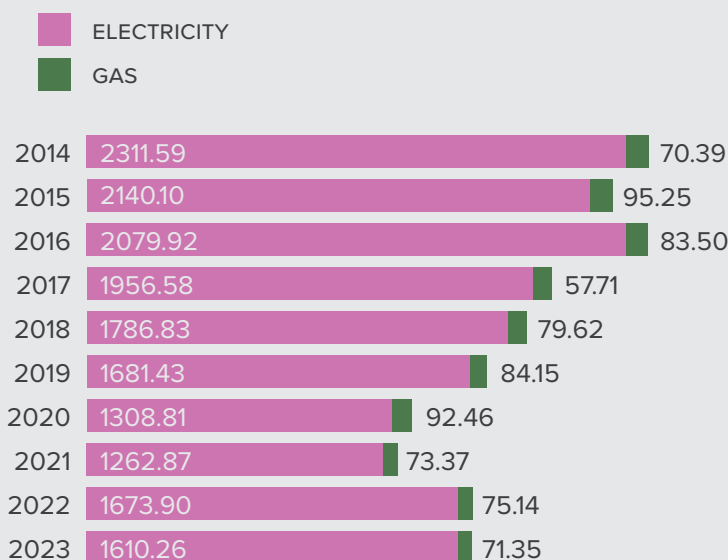
**2019:** 100kW solar power system installed at Pakenham Campus and a 75kW system installed at Berwick Campus.

**2021:** 125kW solar power system installed at Berwick Campus.

**2022:** slight increase in gas and electricity usage from running air conditioners and heaters with windows and doors open (similar to 2019 figures - the last school year of full attendance before 2020-21 lockdowns).

**2023:** slight decrease in electricity usage (possibly from relaxed COVID restrictions relating to leaving windows open) leading to more efficient temperature control in class rooms.

### TOTAL GREENHOUSE GAS EMISSIONS



# WATER

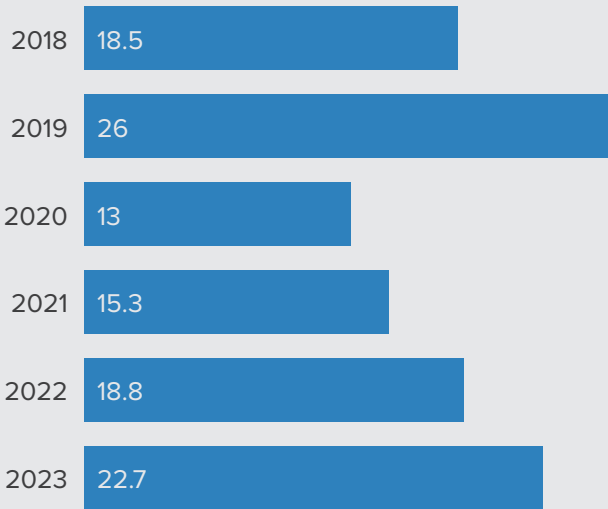
WE USE A MONITORING SYSTEM CALLED SWEP TO OBSERVE AND TRACK WATER USAGE ACROSS BOTH CAMPUSES.

While we continue to encourage students and staff of the campus to be efficient and courteous with their personal water use, we also use water monitoring to detect and identify any leaks across both campuses.

We have endeavoured to lower water consumption by installing water efficient fittings and fixtures such as taps, toilets and water fountains. A rainwater storage system with a capacity of 807,600 litres across both campuses is used where possible, for example in grounds irrigation and bathrooms. This capacity will increase in 2024 with the installation of a 960,000 litre underground storage tank at the Pakenham Campus Years 7 and 8 Building.

The College also aims to support Melbourne's waterways through various avenues. As our Pakenham Campus directly links to the Toomuc Creek which flows into Westernport Bay, the College strives to avoid adding extra pollutants to the waterways through run-off. The College has installed dry riverbeds and has eliminated use of pesticides and herbicides in our vegetable gardens to help combat water pollution. Storm water drains are also directed to toilets and gardens around campuses. As the Berwick Campus is linked to the Cardinia Creek, similar water safe practices are also adopted there.

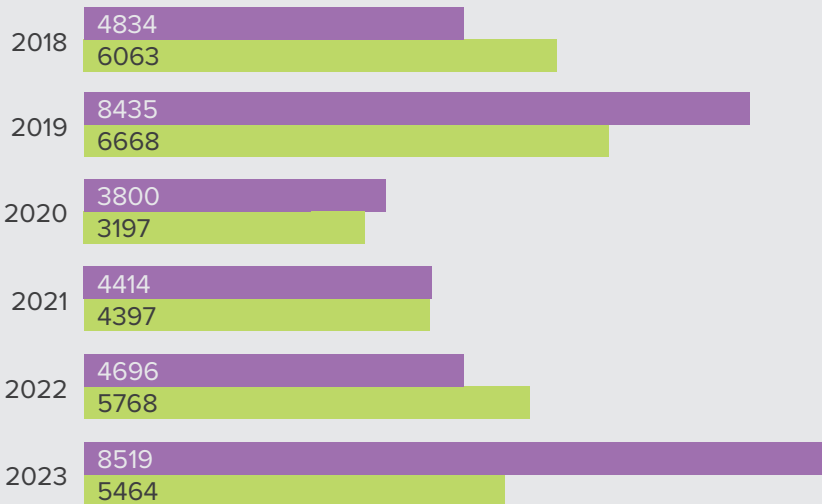




### WATER (L) CONSUMED PER PERSON, PER TERM DAY



■ BERWICK CAMPUS  
■ PAKENHAM CAMPUS



### MAINS WATER USE (KL)

In 2023, while Pakenham Campus had a slight decrease in water use, Berwick Campus had both a mass water loss due to a burst hot water unit under the Canteen, and a toilet leak. The leak occurred in a bathroom that had a sensor, causing the toilet to flush more frequently for an extended period of time. Toilets across both campuses use tank water, but due to the continuous water use in these toilets, the water tanks emptied, forcing the back-up pump to fill with mains water.

# WASTE

AT BEACONHILLS, WASTE MANAGEMENT IS A COMPREHENSIVE SYSTEM ENCOMPASSING VARIOUS STREAMS TO MINIMISE ENVIRONMENTAL IMPACT AND FOSTER COMMUNITY ENGAGEMENT.

Alongside specialised initiatives, the College operates a three-bin system:

1. General waste
2. Compost
3. Commingled recycling



Organic waste fuels the school's worm farm for campus landscaping and horticulture use, while paper and cardboard are recycled at a local mill.

Donation bins for clothing and small electronics promote reuse, while batteries are responsibly recycled to prevent environmental contamination. Metal items are repurposed or recycled, with proceeds supporting our Beacon of Hope Foundation which gained \$237.58 through this avenue in 2023. Construction waste is repurposed when possible, contributing to sustainable practices.

The College is also regularly involved with other school waste recycling initiatives, such as our yearly stationery drive, old library book donation and collaboration with neighbouring schools for furniture and goods exchange, demonstrating our holistic approach to waste management and community support.

The College continues to lower waste exports by encouraging all students to be involved with the school 'nude food' initiatives and the introduction of our single-use plastic policies which have eliminated the use of most single-use plastics in school canteens and kitchens. Since the new policy was implemented single-use plastic sauce sachets, cutlery and straws have been removed from kitchens and replaced with more sustainable alternatives.

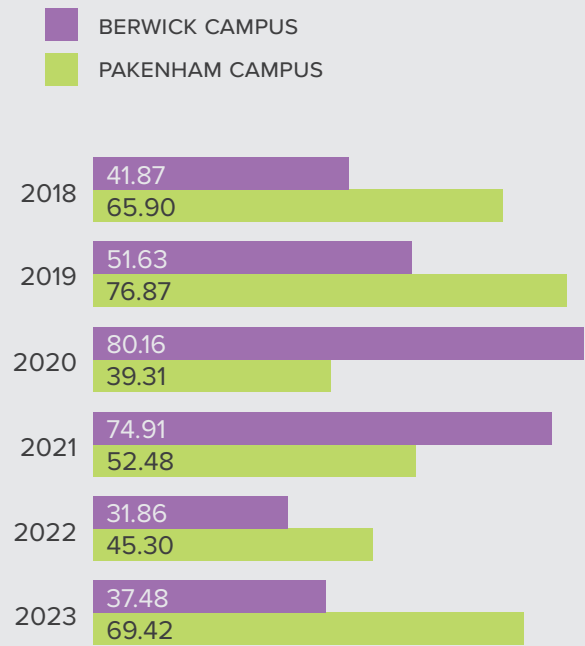
In 2024, the College eagerly anticipates implementing a container deposit recycling stream across both campuses, poised to significantly reduce waste outputs and bolster sustainability efforts.



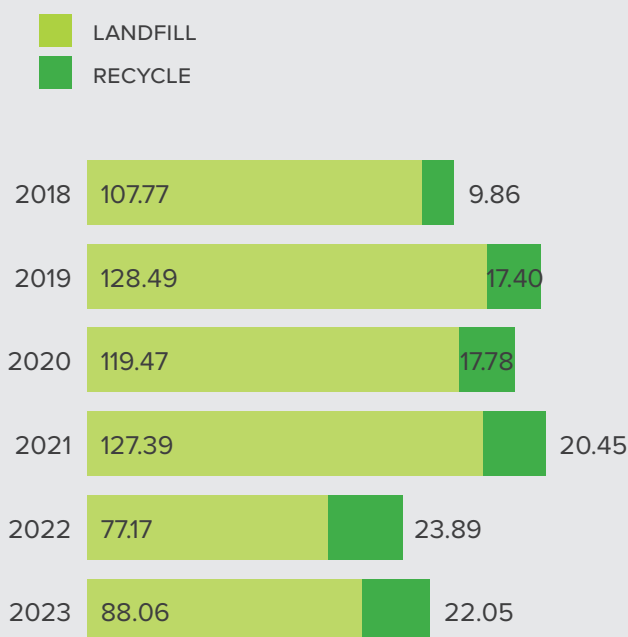
### COMMINGLED RECYCLING (T)



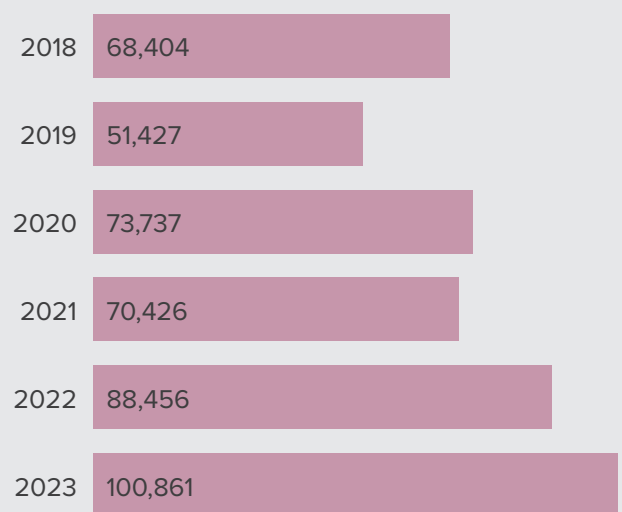
### LANDFILL (T)



### LANDFILL COMPARISON (T)



### TOTAL WASTE (\$)

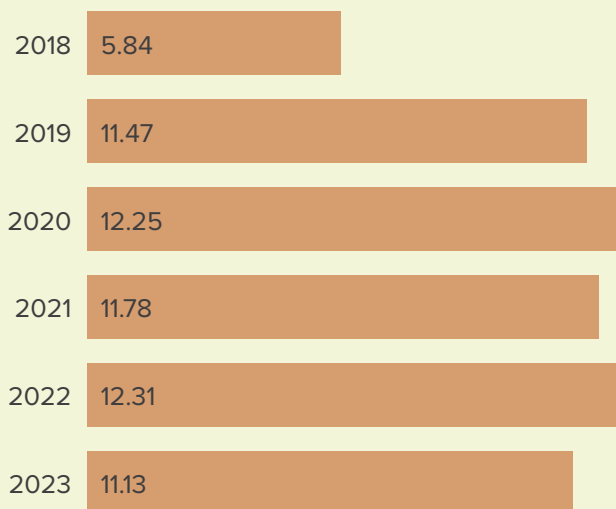


# PAPER

SINCE 2012 THE COLLEGE HAS TRACKED PRINTING PAPER USAGES ACROSS ALL AREAS OF EACH CAMPUS THROUGH THE DATA COLLECTION SITE, PAPER CUT.

When we began tracking this information in 2012 the campus environmental impact was high, with 12,330.1 kg of CO<sub>2</sub> released and 30.4 trees consumed in the making and use of the paper. We are now proudly able to say that each year we have been lowering our paper usage. Online learning during COVID meant paper consumption was significantly lower than previous years. However, with school completely back to face-to-face learning in 2023, paper consumption has decreased since 2012. In 2023, 10,864.3kg of CO<sub>2</sub> was released through paper consumption. While it is a great effort of all staff that paper consumption has decreased, we are constantly trying to further lower the environmental impact of paper consumption. Moving forward, we want to strive towards a paper-free school environment where we encourage staff and students to find alternative sustainable ways to paper use.

## PAPER/CARDBOARD RECYCLING (T)



Total sheets of paper used at the College  
2,414,281

CO<sub>2</sub> produced:  
2,414,281

Equivalent bulb hours:  
684,046.3 hours

Trees consumed:  
29.99



# GARDENS AND GROUNDS

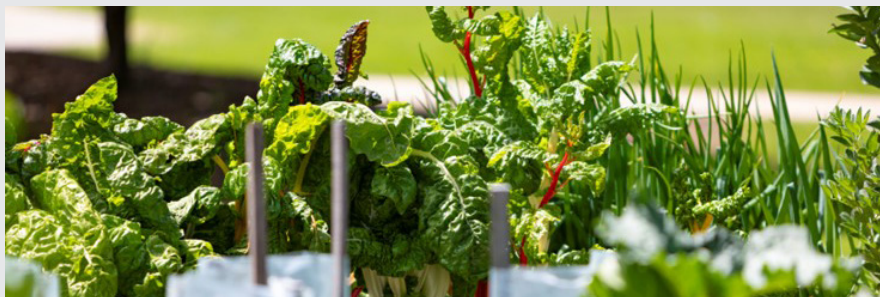
## A FLOURISHING HABITAT

### BEACONHILLS COLLEGE'S DEDICATION TO ENHANCING ITS NATURAL ENVIRONMENT EXTENDS BEYOND THE CLASS-ROOM TO ITS GARDENS AND GROUNDS.

The landscaping master plan serves as a blueprint for sustainable development, guiding the integration of indigenous plants and ecosystem-supporting features throughout the campus. By prioritising the planting of native species sourced from local council indigenous nurseries, the College not only beautifies its grounds but also contributes to regional conservation efforts.

The collaborative growing plan between the Beaconhills' food kitchens and vegetable gardens directly intersects with its landscaping initiatives. The College ensures that its gardens serve a dual purpose of providing fresh, organic produce for College use and donation to charities, while also enhancing the local ecology and amenity.

By incorporating ecological principles into its landscaping practices and using its gardens as educational resources, the College creates a holistic learning environment where students actively participate in the stewardship of their natural surroundings. This reflects the College's environmental pillar of *Learning That Matters*.



# COMMUNITY ENGAGEMENT

INTERNATIONAL. NATIONAL. LOCAL.

## CHANGING LIVES THROUGH SERVICE: SHAPING A FUTURE OF GREATER POSSIBILITY FOR COMMUNITIES THROUGH ENVIRONMENTAL ACTIVISM.

Contribution to community through service has always been part of the true spirit of Beaconhills College. Research and personal experience show a clear link between “doing good” for others and a sense of personal wellbeing. This is proudly supported within Beaconhills College.

Environment and sustainability are key service areas within our strategic approach to delivering meaningful and relevant support programs, both locally and abroad. We are excited to continue to deliver so much in this space.

As important as our support programs is the need to raise awareness and understand environmental impacts. This includes the need to adopt more sustainable products, habits, and processes, knowing that in time these will generate positive environmental changes for the future.

Beaconhills College will continue to develop meaningful learning opportunities and experiences for students and their families to further explore matters relating to the environment.

Sarah Dyce  
Head of Citizenship and Service



## Beacon Challenge – Vietnam

Before heading off to Vietnam on a 12-day Beacon Challenge in late 2023, 17 Senior School students set about raising as much money as possible to support the people of Vietnam during their visit.

Students across both Berwick and Pakenham campuses raised \$3980.43 collectively which covered the costs for the ‘service’ portion of their trip, a part they were adamant to deliver successfully for the people of Vietnam.

Students thrived when given the opportunity to help a remote village with a building project while in Vietnam.





## Beacon of Hope Winter Appeal (student-led)

Each year the Beacon of Hope Winter appeal asks our school community to dig deep and donate their pre-loved winter coats, items of non-perishable food and old towels to support various partners in the community contributing to those in need.

In 2024 we collected more than 1200 parcels of food, 180 jackets and 80 towels which were all highly needed and greatly appreciated, as we recognise high levels of crisis within the local community.



## Secondhand uniform pop-up project (student-led)

Members of the Beacon of Hope Student Committee have been advocating for the opportunity to develop a secondhand uniform platform since early 2023, for a number of reasons.

The first reason is to decrease the amount of uniform ending up in landfill, the second to support people who may find new uniform items expensive, and thirdly to raise funds for the Beacon of Hope Foundation.

Students worked hard to receive, sort, and prepare donated uniform items to have them ready for sale at our first Secondhand Uniform Pop-Up Shop in late 2023.

The sale was a great success, raising just over \$1200 for the Beacon of Hope Foundation.



## West Ahmedpur School Development Project: Bangladesh

The Beacon of Hope Foundation funded the redevelopment of a large school located in West Ahmedpur, Bangladesh, in partnership with Fred Hyde Schools.

The redevelopment works were deemed critical and had an environment and sustainability focus. The rebuild priorities were to ensure the school became more resilient to high levels of rain, cyclones and consistent wet conditions, and to provide a learning environment with increased space and safety for students.

The works, complete in March 2023, have brought the school building up to modern specifications so that the 400 students that attend West Ahmedpur now have a sustainable school and a better place to shelter during cyclones. The project in its entirety cost just over \$18,000, all of which was funded by corporate sponsors and donations to the Beacon of Hope Foundation.



## BEACON EXPLORERS

Beacon Explorers programs are dedicated to preserving the natural beauty and minimising our impact on the environments we visit. Some of the ways in which we do this is by collecting rubbish from beaches on the Year 7 Mornington Peninsula Program, the Year 9 Great South West Program and our Year 10 East Timor Program. We log our efforts on the Tangaroa Blue website which tracks marine debris globally. Through these initiatives, and by teaching our students the 'Leave No Trace' principles, we strive to give back and inspire others to do the same.

# LANDSCAPING: A MASTER PLAN

The College has finalised landscape master plans and design guidelines for both campuses.

The *Landscape Master Plan* is intended to encourage unity in the design within and across both campus landscapes over time, so that individually designed parts of the landscape relate properly to one another, regardless of when they are built.

The *Landscape Master Plan* objectives are:

- the development of a detailed plan to guide the future development of all external landscape areas of each campus that supports the delivery of contemporary educational programs and practices for our learning community
- a process that ensures ownership of a landscape master plan that establishes sustainable practices around maintenance and use of spaces that is incorporated into our programs
- identification of the landscape master 'palette' for each campus that represents Indigenous cultures, history and heritage
- identification of key places and themes that represent purpose-based logic consistent with the strategic needs of our programs and *Learning That Matters*
- engaging with students on the redevelopment of the plans.







## PLANNING FOR THE FUTURE

Beaconhills is committed to advancing green building design across all new developments on our campuses while also reassessing procurement policies and equipment end-of-life procedures. To bolster our sustainability efforts, we are planning to add an extra 800kW of solar capacity, aiming for our net-zero target, where the electricity we feed into the grid matches our consumption.

Beaconhills College will continuously enhance our recycling programs and community service initiatives. Educating our students, staff, and families about the paramount importance of sustainability remains a cornerstone of our mission.

In 2024, the Pakenham Campus has opened a new Years 7 and 8 Building as well as a natural playground in the Junior School. We are also exploring the installation of solar batteries for all solar inverters across both campuses. Despite current low rebates, the College is receiving \$25,000 annually through electricity generated and fed into the grid. By harnessing all solar-generated power through battery use, we estimate potential savings of \$94,000 yearly on energy bills.

The College community is collectively working towards achieving our sustainability goals. We understand that everyone has a role to play in the transition and challenges we face in finding new ways to have a long-term positive impact on our environment. We strive to turn commitment into action and give everyone the opportunity to become an environmental steward.

2023 was a year which we overcame challenges, introduced new strategies and witnessed development and results in sustainability efforts.

*Our Green Report* provides an evidence-based snapshot of success.

We congratulate our community for their efforts in striving towards our sustainability goals and hope our students continue their sustainability journeys long after they leave the College. We look forward to the results our 2024 team will produce.







**BEACONHILLS COLLEGE**

**PAKENHAM CAMPUS**

30-34 Toomuc Valley Rd,  
Pakenham VIC 3810

**BERWICK CAMPUS**

92 Kangan Dr,  
Berwick VIC 3806

1300 002 225

[enquiries@beaconhills.vic.edu.au](mailto:enquiries@beaconhills.vic.edu.au)

[www.beaconhills.vic.edu.au](http://www.beaconhills.vic.edu.au)

CRICOS Provider No 03182J

01/08/2024