



Environmental Sustainability Report 2020-21

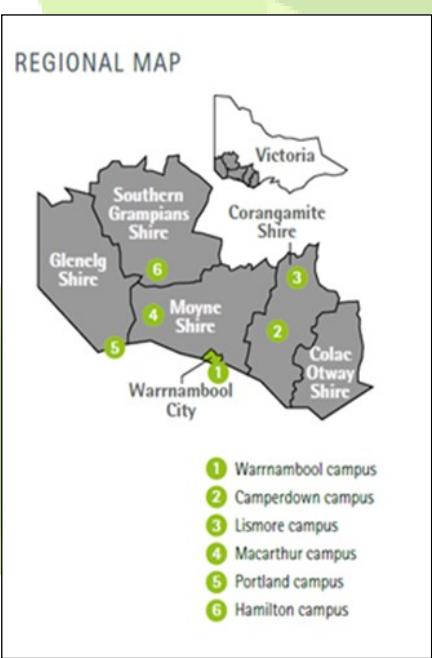


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About South West Healthcare

South West Healthcare (SWH) is the largest sub-regional health service in Victoria; providing acute, mental health, rehabilitation, and aged care together with an extensive range of primary and community health services across the south west catchment. Public clinical mental health services for community members of all ages operate out of offices in Warrnambool, Camperdown, Portland and Hamilton. Community Health Centres at Warrnambool, Camperdown, Lismore and Macarthur and an adult day centre in Camperdown provide services and programs to support the locals in their community, enabling them to maintain their health and prevent illness and chronic disease. With a total of 282 beds (216 acute, 36 aged care and 30 mental health), located across two public hospitals Warrnambool Base Hospital and Camperdown Hospital and Aged Care Facility, and the Prevention and Recovery Centre Ngootyoong, the organisation is a major specialist referral centre for the Barwon South West sub-region. To support these patient services, South West Healthcare has commercial kitchens at two sites, two cafes at Warrnambool, a commercial laundry, supply and maintenance departments, tenancies and a range of smaller dwellings (i.e. Rotary house and medical student accommodation).



Front Cover Images

The front cover provides some images of sustainability-related activity within South West Healthcare during 2020-21 (clockwise from top).

1. Day Oncology Unit staff (l-r) Sophie Gunning, Rachel McCann and Sharon Scott with the new reusable water bottles. The project was undertaken with the support of Wannon Water (see story on page 4).
2. CEO Craig Fraser, Environmental Sustainability Officer Elvira Hewson, Executive Director of Service Development Jamie Brennan, Buildings and Infrastructure Manager Stuart Blignaut, Fleet Officer Tim Van der Starre and Program and System Administrator—Mental Health / Sustainability Committee Representative Erin Weston at the launch of the 2020-2024 Environmental Management Plan, highlighting the rolling introduction of a standardised fleet of hybrid vehicles
3. New solar array at Macarthur Community Health Centre (see story on page 3).
4. Emergency Department Patient Care Discharge Information Poster for Children (see story on page 5).
5. Maintenance Manager (Camperdown and Lismore) Les Harrison with the new solar array at Lismore Community Health Centre (see story on page 3).

About this report

This document contains Southwest Healthcare's (SWH) environmental performance data as it relates to energy and water usage, waste production and the generation of Greenhouse Gas (GHG) Emissions. This report details performance against a standard, industry-wide set of metrics across the reporting period covering the financial year 2020-21. Energy and Water consumption totals for SWH include all SWH sites, while reported waste production totals relate to the SWH Warrnambool and Camperdown Hospitals.

Energy and Water performance data is compared to data collected since 2014-15, the designated baseline year for Regional Health Services public environmental reporting. Greenhouse Gas Emissions are calculated by the Victorian Health Building Authority (VHBA) Environmental Data Management System (EDMS). Data assurance for this report has been achieved internally according to the *Department of Health's Public Environmental Reporting Guidelines 2017*. Data provided within this report is normalised using indicators relevant to the healthcare sector, occupied bed days (OBD) and area (m²). These normalised figures provide the most accurate evaluation of environmental performance in the context of changes to service provision.

In response to Victorian Government directives regarding COVID-19, a reduction in non-emergency surgical services across all health services was implemented in order to manage risks and potential influxes of service demand in the first quarter of the current reporting period. Public movement restrictions and risk averse actions by the community during COVID-19 has also contributed to lower OBD numbers during 2020-21 at SWH.

A highlight for this current reporting period was the launch of the 2020-24 SWH Environmental Management Plan (EMP). This EMP guides sustainability activity at SWH and the launch focused on the rolling introduction of a standardized fleet of hybrid vehicles (see photo on front cover with detail on page 2). Sustainability actions identified by staff in their area of expertise and influence are a core feature of this EMP. Work achieved this year in our Emissions Reductions Program (see story on page 3), re-usable water bottle initiative (see story on page 4) and Emergency Department QR code posters (see story on page 5), are testament to this style of working. Both large-scale infrastructure and continual quality improvement initiatives contribute to the overall environmental footprint of SWH, and their continued traction in a year marked by a focus on COVID-19 related changes, has been significant.

The *EMP* actions align with priority areas of the *VHBA Environmental Sustainability Strategy 2019-20—2022-23*. This Strategy sets out the Department of Health's (DHS) commitment to further improve the environmental performance of the health system and to adapt the health system so it is resilient in the face of climate change.

Glossary

Throughout this report the following key terms are used:

Area (m²): Total building floor area (excluding car parks) – metres squared (m²) of South West Healthcare.

Occupied bed days (OBD): Inpatient bed days as reported through the Victorian Admitted Episodes Dataset (VAED) and the number of residential aged care bed days for the reporting period reported to the Department of Health's Aged Care Branch.

Scope 1 Emissions: Point source emissions including all emissions produced onsite that are material (>5%) to the operations and services of South West Healthcare. These include fleet transport fuel, gas and diesel consumption.

Scope 2 Emissions: Indirect emissions from the generation of peak and off peak electricity purchased and consumed by South West Healthcare are produced by the burning of fuel (coal) at the power station.

	Area (m ²)	2014-15 OBD	2015-16 OBD	2016-17 OBD	2017-18 OBD	2018-19 OBD	2019-20 OBD	2020-21 OBD
South West Healthcare Total	58,757	69,280	67,610	75,310	76,196	78,459	74,896	73,671



Energy

Total Energy Usage reduced by 5% for 2020-21 compared to the previous year - representing savings of 600T of carbon emissions.

Overview: A 5.6% reduction in energy usage was achieved in 2020-21 in comparison to 2019-20. Possible contributing factors included the impact of new renewable energy projects, maintenance programs and energy infrastructure upgrades. In line with targets set in the *SWH Environmental Management Plan 2020-24*, continual decreases in consumption were recorded across all energy source, and these are summarised in Table 1, with percentage changes given to the year prior. Although LPG gas consumption has a relatively low contribution to overall energy use, our Lismore and Macarthur Community Health Centres have been reliant on this energy source for heating and hot water. With the move to both these campuses being 100% electrified (see story below), this is the final year LPG will be used at SWH. The impact of this energy usage is indicated in Table 2 which provides a summary of Greenhouse Gas (GHG) Emissions with normalised figures.

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% Change
Total Electricity MWh	6,916	7,636	7,806	7,768	7,631	7,011	6,861	
Total Electricity (GJ)	24,897	27,489	28,103	27,697	27,473	25,241	24,700	↓2%
Natural Gas (GJ)	49,398	46,327	45,644	44,114	37,389	38,038	36,406	↓4.3%
Liquid Petroleum Gas (GJ)	-	-	210	173	198	193	142	↓26%
Fleet Transport (GJ)	6,853	7,288	6,572	6,503	8,060	7,292	6,277	↓14%
Total Energy Usage (GJ)	81,149	81,110	80,530	78,561	73,120	70,764	66,825	↓5.6%
Solar Production (GJ)*					59	1031	2592	

Table 1: Energy Usage at South West Healthcare

*Camperdown Hospital Solar Array began generating power in April 19 and Warrnambool Hospital Solar Array in September 19 meaning comparisons year on year will only be possible in 2021-22.

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Scope 1 – direct (tCo2e)	2,725	2,613	2584	2504	2149	2473	2318
Scope 2 – indirect (tCo2e)	8,161	8,628	8509	8309	8166	7151	6722
Total Emissions (tCo2e)	10,886	11,241	11,093	10,813	10,315	9,624	9040
Emissions (kgCO2e)/OBD	157.12	166.27	147.30	141.91	131.47	128.49	122.7
Emissions (kgCO2e)/m2	241.45	192.87	190.32	181.3	172.96	161.38	153.85

Table 2: Greenhouse Gas (GHG) Emissions for South West Healthcare

Renewable Energy Projects extend across SWH campuses

Solar PV arrays have recently been commissioned at PARC (our Prevention and Recovery Centre), Macarthur and Lismore Community Health Centres and Portland Mental Health Service as part of 8 SWH energy efficiency projects funded by the Victorian Health Services Building Authority (VHSBA) Emissions Reductions Grant Program. At Macarthur and Lismore, new electric hot water services that

will draw off the solar PV arrays have also been installed, completely removing the need for LPG at these sites. Even with increased demand on electricity for hot water, the new solar PV arrays will reduce average daily power usage at these sites by 40%, ultimately freeing up further resources to be directed to patient care (pictured the new arrays at left Lismore Community Health and right Macarthur Community Health). The SWH Sustainability Committee was pleased to see the focus of sustainability activity extend to smaller SWH campuses.





Total Water Usage reduced by 7.5% for 2020-21

Overview: Total water consumption across South West Healthcare decreased in 2020-21 and this is summarised in Table 3. Various factors could be attributed to recorded water usage. While increased frequency and length of handwashing practices continued to occur in response to the COVID-19 pandemic, the summer was milder and wetter than average, increasing the capacity for re-use water for purposes of toilet flushing. A water focused project was undertaken in 2020-21, aiming to encourage patients to bring re-usable water bottles along as part of their care programs (see story below).

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	% change
Potable water usage (kL)	59,916	63,917	57,692	60,508	56,020	66,217	61,242	↓7.5%
Rainwater/re-use water**	12,000	12,000	12,000	12,000	12,000	12,000	12,000	-
Total Water Usage	71,916	75,917	69,692	72,508	68,020	78,217	73,242	↓ 6%
Water usage (kL/OBD)	1.04	1.05	0.93	0.95	0.87	1.04	0.99	↓4.8%
Water usage (kL/m2)	1.23	1.30	1.20	1.22	1.14	1.31	1.25	↓4.5%
% Rainwater / Reuse rate	16.7%	15.8%	17.2%	16.6%	17.64	15.3%	16.4%	↑1.1%

Table 3: Water Usage for South West Healthcare

**estimated volume

Small actions during the COVID-19 pandemic #1: Water without waste

Staff identifying and implementing sustainability improvements as part of a continual quality improvement process led to a focus on reducing single use water bottle at two SWH sites. Patients attending the Healthier Me Program at the SWH Camperdown Community Health Centre and Day Oncology Unit at the South West Regional Cancer Centre, needed to be given bottled water if they had forgotten to bring water along, due to a range of barriers created by existing infrastructure and infection prevention guidelines. Staff at both sites identified that the provision of a re-usable water bottle at the commencement of treatment might encourage people to remember hydration as part of their care routine. At Camperdown Community Health, the response also included a request to the Sustainability Committee to investigate the feasibility of installing a water fountain in the gym area. While the cost to install a water fountain was more costly and complex than anticipated, the two sites together were successful in getting sponsorship from Wannon Water in the form of 150 reusable water bottles. Staff are hoping that the Wannon Water Drink Bottles will act as a prompt to encourage people to remember hydration as part of the care routine, alongside significant reductions in waste to landfill from the single-use water bottles. Pictured below (left, Day Oncology Unit staff l-r Sophie Gunning, Rachel McCann and Sharon Scott and right, Simon Gaylard (Exercise Physiologist) and Tracey Heeps (Allied Health Assistant) who run the Healthier Me Program at Camperdown Community Health Centre.



Waste



Overview: Both general and clinical waste streams increased in 2020-21 compared to the previous reporting period, and this increase is most likely attributable to changes associated with COVID-19 protocols. Cardboard and printer/toner recycling streams were the only recycling streams to increase in 2020-21. Collapsed market prices continued to have ongoing impacts to soft plastic and sterilization wrap recycling streams. The reporting of waste data at Warrnambool and Camperdown campuses utilizes the *Victorian public health services waste reporting tool: version 2.01* to provide a standardized estimate of waste according to bin types and typical bin weights for waste streams. The waste stream totals shown in Table 4 (overleaf) are developed with these estimates. Where an actual weight was known, these are used in preference to the estimated totals. consumable products to this stream

As a sub-committee of the Sustainability Committee, the Waste Working Group oversees waste activity at SWH and is constantly assessing new recycling streams and re-use opportunities in order to decrease waste to landfill. In 2020-21, considerable background work was spent working with local council and FOGO processors to establish the viability of sending compostable clinical consumable items to a FOGO stream. This collection is due to commence on a trial basis in 2021-22.

Waste by type (kg)	2017-18	2018-19	2019-20	2020-21
General (inc. sanitary)	325,228	295,298	276,419	281,045
General waste (kg/ OBD)	4.27	3.76	3.63	3.81
Clinical waste incinerated	4,397	4,218	4,365	3565
Clinical waste sharps	4,961	4,785	4,413	4003
Clinical waste treated	61,351	70,643	71,751	88621
Total Clinical Waste	70,710	79,647	80,520	96,187
Clinical Waste (kg / OBD)	0.93	1.01	1.075	1.31
Recycling—batteries	329	334.8	913	532
Recycling—cardboard	58,410	66,797	77,218	78,420
Recycling—comingled	54,789	45,128	42,330	13,704
Recycling—e-waste	1565	771	1720	1389
Recycling—metals	226	2520	720	-
Recycling—garden organics	919	682	819	n/a
Recycling—FOGO	n/a	4368	n/a	n/a
Recycling—Little Blue Towels	n/a	224	120	60
Recycling—PVC (IV Bags, Oxygen masks and tubing)	278	357	419	258
Recycling—packaging plastics and films	3,843	n/a	n/a	n/a
Recycling—paper (confidential and other)	16,114	13,659	13,920	11,885
Recycling—sterilisation wraps	515***	10,158	4,668	n/a
Recycling—toner and print cartridges	116	139.62	127.3	221
Total Recycling	137,104	147,534	142,974	106, 468
Recycling waste (kg/OBD)	1.80	1.88	1.91	1.45
Percentage of recycling to landfill/clinical***	35%	39%	28.6%	22%

Table 4: Overview of key waste and recycling streams.

*** the general waste at Warrnambool campus is a known weight, and this figure used in preference to the estimate of the waste reporting tool. This figure is significantly less than that generated by the Waste Reporting Tool. This has the biggest impact when considering the percentage of recycling to landfill and clinical waste, which is probably closer to 20%.

Small actions during the COVID-19 pandemic #2: Patient Care Information Posters



The use of QR codes had been identified in 2019 by the Sustainability Committee as a potential way to cut paper usage in a range of contexts across SWH, and the timing seemed right with the growing familiarity and use of QR codes during COVID-19 (including the use of QR codes by the SWH Quality Team in their patient feedback forms). With input from Education, People and Culture, and the Emergency Department, a trial poster was created with top discharge patient care information topics. Where appropriate, clinicians are able to help patients' access key resources for common discharge patient care issues via a QR code, rather than look up and provide a paper based version. Feedback from the trial included staff finding the codes easy to use, and quite a few staff starting to incorporate this into their clinician to client education practise. Another benefit identified by staff was reduced time spent looking up resources through TRAK. Staff requested a few additional topics and the creation of separate poster for children and adults, with a few additional topics included. Pictured left is the new QR code-based patient resource for children, with dynamic QR codes that enable usage to be tracked and resources to be updated where required.

Sustainability highlights at a glance

Significant environmental benefits of key projects and strategies have helped to reduce negative environmental impacts and also operational costs. This summary infographic highlights that the process of embedding sustainability into all areas of South West Healthcare is a journey and that a significant start has been made.

73 kW solar panels installed across SWH Lismore and Macarthur Community Health Facilities, Portland Mental Health Service and our Prevention and Recovery Centre.



Rolling introduction of standardised hybrid fleet



Laundry hot water bypass project



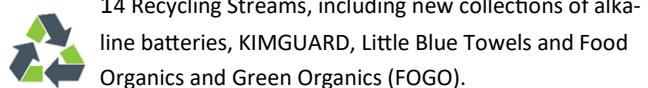
2020 - 2024 SWH Environmental Management Plan

Pharmacy medication disposal project creating environmentally sustainable waste disposal pathways



343 kW solar panels installed across Rotary House, Camperdown and Warrnambool Hospitals

An additional 4,000KL water captured from Sterilisers and RO plant annually for re-use with rainwater for the toilet flushing system at Warrnambool.



14 Recycling Streams, including new collections of alkaline batteries, KIMGUARD, Little Blue Towels and Food Organics and Green Organics (FOGO).



Environmental Sustainability Committee and email network of 75 SWH Green Ambassadors. Member of the Global Green and Healthy Hospitals Network.

For more information or to provide feedback about Sustainability Programs at South West Healthcare contact the Environmental Sustainability Officer.

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Establishment and maintenance of donor-funded Rehab / GEM therapy garden



KEEPCup campaign, reducing 13,000 disposable coffee cups in first year



8 Hybrid Camrys in District Nursing Fleet



Climate resilient Greening pilot project



Water saving shower heads installed at Warrnambool and Camperdown Hospitals resulting in savings of over 10,000L / day



2017-19 SWH Environmental Management Plan

4900 LED lights installed



9 Green Ambassadors attend DHHS Waste in Healthcare Workshop with reviews in work areas to improve recycling



in work areas to improve recycling

4900 LED lights installed

