



ENVIRONMENTAL SUSTAINABILITY REPORT 2018 – 2019



East Grampians Health Service (EGHS) continues to demonstrate our commitment to a more sustainable environment. EGHS has a program of recycling appropriate waste, reducing energy consumption, reusing equipment and supplies and considering sustainability when purchasing these items.

Recognition of the link between the health and wellness of people and the health and wellness of the environment, is in keeping with the EGHS mission statement: *“EGHS will improve our community’s health and quality of life through strong partnerships and by responding to changing needs.”*

The CEO and Management of EGHS recognise the importance of and are committed to sustainable environmental management by reducing landfill waste, reducing energy usage and promotion of energy efficient behaviours.

About East Grampians Health Service

The core business of East Grampians Health Service (EGHS) is a rural health service with campuses located at Ararat and Willaura in Western Victoria.

EGHS offers a wide range of services including:

Inpatient/Acute Services

The Inpatient Unit accommodates medical, surgical, paediatric, midwifery and palliative care patients in a 24 bed unit. As well there are 6 surgical day procedure beds and a six chair dialysis unit operates six days per week. EGHS continues to accept a wide range of surgical patients with the visiting surgeons operating five days a week. The Central Sterilising department services all areas of the health service as well as the local Medical Centre and East Wimmera Health Services.

As well Ararat campus offers 24-hour urgent care service and Oncology one day per week,

These are services that the public access for short term health care needs, for example, an operation or treatment of an acute illness that requires a short hospital stay.

Aged Care Residential Services

EGHS provides quality care for older people who require aged care in spacious modern accommodation. Ararat campus offers 69 aged care beds and Willaura campus offers 12 aged care beds and 8 acute care beds. Other Aged Care Services offered are Day Centres at both campuses.

Community Services

Community Services are delivered by EGHS to support people to improve their health and remain living independently in the community. We encourage awareness and provide education to enable community members to play an active role in improving their own health

The Community Health Centre hosts services including Dental, Physiotherapy, Exercise Physiology, Occupational Therapy, Podiatry, Speech Pathology, Dietetics, Diabetes Education and Social Work. We offer outreach services to Willaura as well as the Bush Nursing Centres in Lake Bolac and

Elmhurst. Our clinicians support other clinical areas including our acute and residential aged care patients. The Centre also hosts speciality clinics such as consulting suites for visiting surgeons and Maternal Child Health Nurses.

The Patricia Hinchey Centre offers community outings, healthy eating, education, support and centre based activities to improve mental health and increase the independence of participants.

Community Nursing services include visiting services that encompass Palliative Care, District Nursing, Hospital in the Home, Hospital Admission Risk Program (HARP), Home Care Packages and specialist nursing programs. Our Healthy@Home telehealth service provides regular phone calls to check in on people and helps to avert unplanned admissions into hospital.

This report, EGHS has included rental properties in the electricity, water, LPG, and natural gas usage and environmental impact.

The reportable floor space has been reduced from 21,729m² to 18,681m².

INITIATIVES AND IMPROVEMENTS

Bamboo Takeaway Containers and Cutlery

In 2019 takeaway containers in Café Pyrenees are gradually being transitioned from plastic containers to containers made from Bamboo materials, which are more environmentally sustainable. This transition was implemented following input from Café Pyrenees staff who were concerned regarding the volume of plastic containers and utensils being sent to landfill. The transition has been successful thus far and the next stage will see the transition from non recyclable coffee cups to ones made from a bamboo product.



Comingled Recycling in Café Pyrenees

Café Pyrenees staff become creative in implementing comingled recycling in café Pyrenees. They repurposed their existing general waste bin area, developed signage and



Keep Cups

Keep cups are still available in Café Pyrenees in small and large sizes.



Drinking Straws

In 2019 the organisation has transitioned from Plastic non recyclable drinking straws to biodegradable drinking straws. By transitioning to biodegradable drinking straws we are doing our bit to reduce the impact of plastic straws on marine life.



Styrofoam

An audit of the organisation in 2019 revealed the wide usage of Styrofoam cups. Styrofoam cups have been replaced with an eco friendly plastic cups where suitable and once a suitable eco friendly cup for hot beverages is sourced the remaining Styrofoam cups will be replaced.

E-Waste

On the 1 July 2019 a ban on E-waste being disposed of in general waste was introduced across the nation. E-waste is any item that operates with a battery or power cord and can be as large as a refrigerator or as small as a battery operated calculator. EGHS is now separating our E-waste from general waste and disposing of this waste as per the new legislation. Ararat rural city now has a purpose built facility to store E-waste at its transfer station. E-waste contains valuable resources that can be collected and repurposed such as copper, E-waste also contains components that contaminate soil and water when left in general waste.



PVC Recycling

In 2019 PVC recycling became a reality for EGHS when we were accepted into the Baxter Health PVC recycling program. The pilot of this initiative at EGHS has begun in our Dialysis unit where Baxter intravenous fluid bags, oxygen tubing and oxygen masks are being collected for recycling with our clinical lead Narelle House overseeing the collection. Once the program has been established in the Dialysis unit we will roll it out into other areas where PVC is used eg Perioperative unit. PVC that is recycled is remade into items such as garden hoses. The Dialysis team are excited to partake in this initiative as a large amount of single use waste is produced in this unit and the recycling of PVC adds to the other measures which have been introduced to try and reduce the waste being disposed of in landfill.



New buildings/ renovations

Recycling of materials to make the same or different products keeps materials in the productive economy and provides beneficial environmental outcomes through reducing the need for virgin materials and waste disposal such as landfill. Recycling includes re-processing where items are processed and used to produce new items of the same material and processes where items are used to create new products. Not all recyclable materials are able to be reprocessed. During redevelopment projects, it is part of our process to recycle materials wherever possible. The following information indicates where EGHS have been able to recycle materials during those projects.

COMMUNITY HEALTH CENTRE REDEVELOPMENT

In 2019 redevelopment of the Centre of Community Health continued with completion of this product in late July early August. During the development there was a conscious effort made to recycle or upcycle existing equipment and materials.

The following photographs show some of the furnishings which were removed from the Centre of Community Health during the redevelopment process. Those items which were not immediately repurposed will be stored for future projects.



Figure 1 Storage cupboard from Dental Clinic to be rehomed in?



Figure 2 examples of office furniture for repurposing



Figure 3 Repurposed Garden Shed from Willaura



Figure 4 Original front desk panel from Community Health in storage for future repurposing

During these projects, we have been able to re-utilise and recycle many items, which has not only assisted with large cost saving to the health service but has also assisted in less wastage which minimises the impact on the environment.

Solar Panel Project 2019/2020



The EGHS Hospital Board is keen to maximise the opportunity to reduce electricity costs, at Ararat and Willaura, through additional solar energy generation as a result of maximising suitable roof space. The Board is keen to fund the solar program through a mixture of EGHS's capital works program and grants from wind farms and philanthropic agencies.

A recent report compiled by John Van Rooden noted that there is an 'opportunity to maximise solar system capacity at eight Ararat installation locations totalling 525kW of solar generation and a further 40kW on Parkland House at Willaura. Importantly, almost all the power generated will be consumed on site. The anticipated 27-29% reduction in power costs, will greatly assist in offsetting the 79% power cost increase which has impacted negatively on EGHS operational budgets'

The proposed solar systems will deliver the following benefits to EGHS and the community:

- Savings in excess of \$3,200,000 in energy costs over twenty-five years which will be reinvested in the region rather than being consumed by energy providers outside the region.
- Reduction of greenhouse emissions over twenty-five years by 16,175 tonnes.
- Capacity for EGHS to redirect capital funds through the savings achieved to provide for other health care services and invest in improved employment and training opportunities

Due to the high energy consumption of public hospitals compared to other commercial buildings, the health sector across Australia is rapidly adopting solar as a cost effective and sustainable solution to help reduce energy costs and deliver increased services and environmental benefits through energy savings. The proposed solar capacity of 565 kW will mean that EGHS will become a leader within the Victorian Public Health Services for the adoption of solar photovoltaics.

EGHS has undertaken a tender process for the proposed Solar Project, there was an overwhelming level of interest from industry providers with 15 companies attending a site tour of the facility as part of the tender process. It is anticipated that a successful Tender applicant will be appointed in the near future.

Hot Water Boiler Replacement Project 2019

In 2018 a review of the hot water heating system used at EGHS was undertaken by Mechanical Building Services Engineers. The review concluded that our existing heating systems for heating hot water and domestic hot water, generated from the existing centrally located boiler house using natural gas, was approximately 30 years old and had exceeded its expected reliable life of around 25 years.

By replacing the old boiler system, which continually heated water 24hrs a day, with small compact hot water services that heat water on demand it is estimated that our energy consumption for water heating will reduce by 60%.

The change over from the old boiler system to the 'heat on demand' systems has begun as illustrated below.



Figure 5 new compact heat on demand service



Figure 6 GVC old and new hot water systems



Figure 7 Example of old hot water storage

The advantages of changing from the central boiler system to the heat on demand system include:

- No energy wastage from reticulated hot water pipework from a central boiler house due to heat losses and leakage from old pipework.
- Cheaper cost than replacing the central boiler house plant and reticulated pipework system
- Smaller units will utilize compact highly efficient condensing boilers.
- Condensing boilers will be cheaper to run and have lower CO₂ emissions than old boilers.
- The loss of a smaller unit will not affect the total hospital site when compared to the existing boiler potential loss impact.
- Smaller units can be installed progressively without switching off the existing plant and will have minimal disruption to services.

Waste Management Performance Report

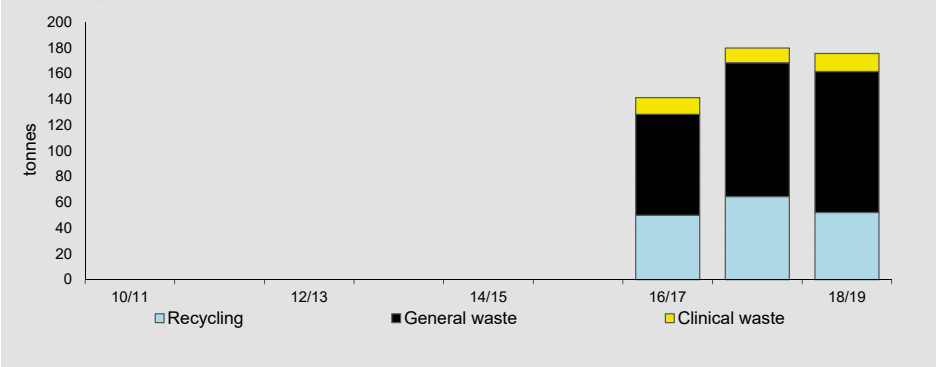
2018-19

East Grampians Health Service

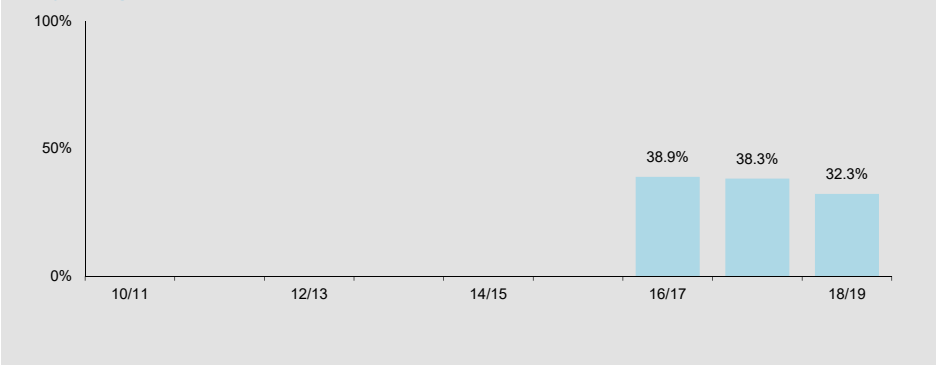
Waste costs (collection & disposal)

	2017-18	2018-19	Change from previous year
Clinical waste	\$17,502	\$25,648	46.5%
General waste	\$23,701	\$16,907	-28.7%
Recycling	\$15,228	\$11,820	-22.4%
TOTAL	\$56,430	\$54,375	-3.6%

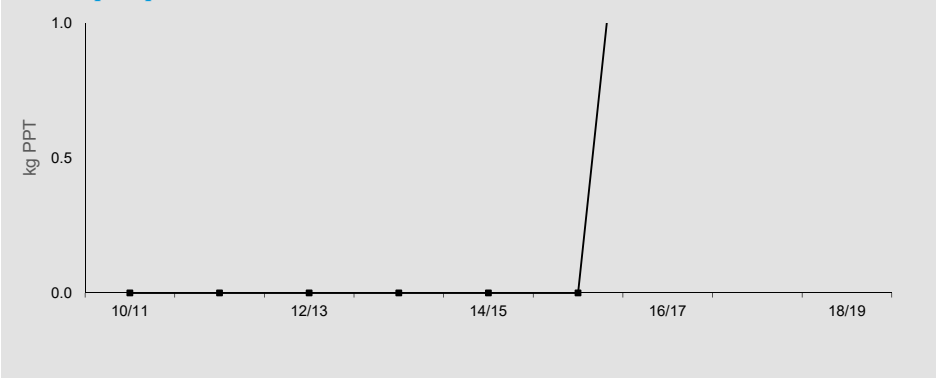
Waste generation



Recycling rate



Waste per patient treated



Questions?

For further assistance with the interpretation of this report please contact the Department at edms@dhhs.vic.gov.au.

GST

All values are GST exclusive.

Recycling	kg
Batteries	-
Cardboard	17,066
Commingled	26,338
E-waste	-
Fluorescent tubes	-
Grease traps	368
Mattresses	-
Metals	-
Mobile phones	-
Organics (food)	-
Organics (garden)	5,801
Other recycling	-
PVC	-
Packaging plastics/films	-
Paper (confidential)	2,627
Paper (recycling)	-
Polystyrene foam	-
Sterilization wraps	-
Toner & print cartridges	-
Wood	-
TOTAL	52,199

Recycling

The list of recycling types includes those potentially available to public hospitals. It is noted that some waste providers in rural and regional Victoria may not deliver these services. The kilograms of recycling reported is for the reported year only.

Recycling rate

The recycling rate is calculated by dividing the kilograms of recycled materials by the kilograms of recycled materials plus kilograms of general waste. It excludes clinical waste.

Per patient treated

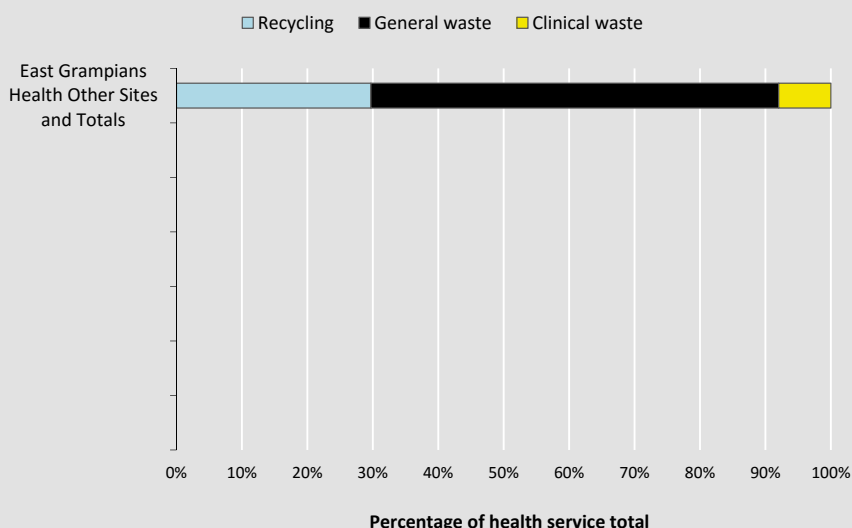
Per patient treated is an aggregation of occupied bed-days (inpatient and aged care), ED departures and separations.

Waste Management Performance Report

2018-19

East Grampians Health Service

Site contribution | 2018-19



Site contribution chart

The site contribution chart works best where health services collect waste data at the facility level. Where waste data is collected at the health service level only one bar is shown. For further information on collecting waste at the facility level please contact the Department at edms@dhhs.vic.gov.au.

Waste generation

	2016-17	2017-18	2018-19
Clinical waste			
Clinical waste - incinerated (kg)	1,537	1,155	1,494
Clinical waste - sharps (kg)	142	104	237
Clinical waste - treated (kg)	11,289	10,178	12,283
TOTAL	12,968	11,438	14,015
General waste			
General waste - bins (kg)			
General waste - compactors (kg)			
General waste - skips (kg)	78,431	104,009	109,493
TOTAL	78,431	104,009	109,493

Waste costs

	2016-17	2017-18	2018-19
Clinical waste (\$/PPT)	0.49	0.39	0.57
General waste (\$/PPT)	0.37	0.53	0.37
Recycling (\$/PPT)	0.21	0.34	0.26

Carbon emissions (Scope 3)

	2016-17	2017-18	2018-19
Carbon (tonnes CO2-e)	109	138	148

Carbon emissions

Carbon generated from waste is Scope 3. Scope 3 carbon emissions are indirect and do not need to be publicly reported. It is provided for information only.

Factors influencing waste

	2016-17	2017-18	2018-19
Aged Care OBD	28,337	28,559	28,506
ED Departures			
LOS	11,464	10,957	11,083
Separations	5,398	5,420	5,639
Per patient treated	45,199	44,936	45,228

Energy and water performance report

2018-19

East Grampians Health Service

Expenditure

	2017-18 (\$ thousand)	2018-19 (\$ thousand)	Change from previous year
Electricity	\$493	\$482	-2.1%
Liquefied Petroleum Gas	\$28	\$28	-0.1%
Natural Gas	\$129	\$141	9.3%
Potable Water	\$52	\$46	-10.6%
TOTAL	\$702	\$698	-0.5%

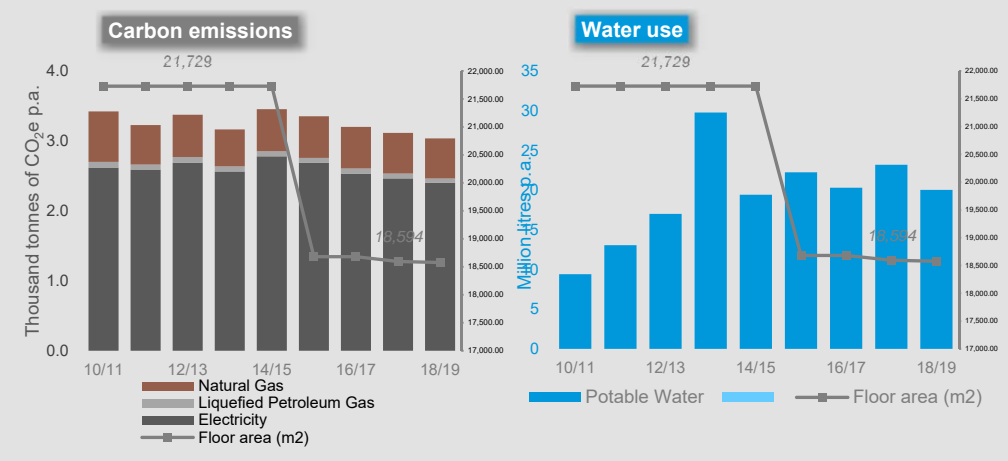
Questions?

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GST

All values are GST exclusive.

Environmental impacts



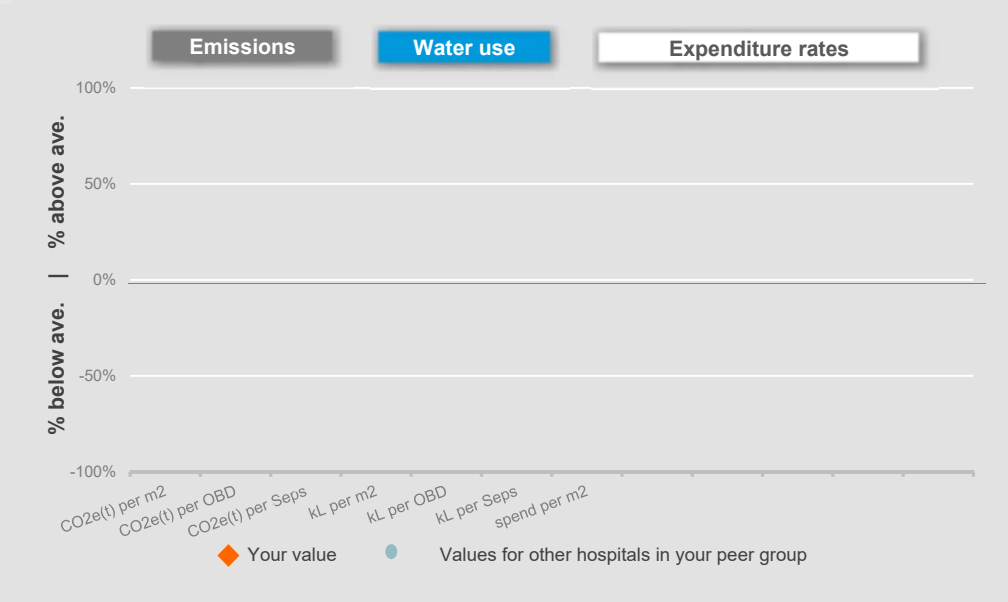
Carbon emissions

Carbon emission values represent total Scope 1 and 2 carbon emission from stationary energy (energy used in buildings).

Floor area

Floor area trend is plotted on the charts as floor area is typically the main factor influencing significant year on year changes in environmental impacts. Carpark floor area is excluded. Floor area is the average value for each year.

Benchmarks | 2018-19



Peer group

Your peer group is ". Members of this group are:

OBD

OBD = Occupied Bed Days, Seps = Separations

Expenditure rates

Expenditure rates are calculated by dividing total expenditure with total consumption (usage).

If your value is not shown, it is more than 100% above or below the peer group average. Your value is provided in the table on page 2.

Energy and water performance report

2018-19

East Grampians Health Service

Environmental impacts & energy use

	2016-17	2017-18	2018-19
Energy use			
Electricity (MWh)	2,320	2,282	2,243
Liquefied Petroleum Gas (kL)	50	45	41
Natural Gas (gigajoules)	11,546	11,261	11,102
Carbon emissions (thousand tonnes of CO₂e)			
Electricity	3	2	2.40
Liquefied Petroleum Gas	0	0	0.06
Natural Gas	1	1	0.57
Total emissions	3	3	3.04
Water use (millions litres)			
Potable Water	20	23	20.02

Factors influencing environmental impacts

	2016-17	2017-18	2018-19
Floor area (m ²)	18,681	18,594	18,577
Separations	5,398	5,420	5,639
In-Patient Bed Days	11,464	10,957	11,083
Aged Care Bed Nights	28,337	28,559	28,506

Benchmarks | 2018-19

	Average for peer group	Your value	% above/below ave.
Carbon emissions			
CO ₂ e(t) per m ²	-	-	N/A
CO ₂ e(t) per OBD	-	-	N/A
CO ₂ e(t) per Seps	-	-	N/A
Water use			
kL per m ²	-	-	N/A
kL per OBD	-	-	N/A
kL per Seps	-	-	N/A
Expenditure rates			
Total utility spend (\$/m ²)	-	-	N/A
<i>Additional measures (not included in benchmarking chart)</i>			
Total utility spend (\$/Separations)		123.81	
Total utility spend (\$/In-Patient Bed Days)		62.99	
Total utility spend (\$/Aged Care Bed Nights)		24.49	

Expenditure rates

Expenditure rates are calculated by dividing

General notes

1 Information in this report is sourced from data provided by retailers and in some cases data manually uploaded by health services into Eden Suite. Data has not been externally validated. All annual values represent a year ending 30 June.

2 Emissions are calculated using the carbon factors for the year in which the emissions were generated. For health services provided with energy (electricity and steam) under the co-generation ESA (energy services agreement) carbon factors provided by the energy retailer are used.

3 Electricity consumption values exclude line losses; some energy retailers include losses in reported values.

4 Occupied bed days (OBD) include both inpatient and aged care data, unless stated otherwise.