## 2015-16 Sustainability Report

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## Glossary

## NORMALISING FACTORS USED THROUGHOUT THIS REPORT

## **Bed-days**

Equivalent to Length of Stay and one Bed Day constitutes occupancy of a bed at midnight. Includes the number of in-patient bed days for the reporting period reported through the Victorian Admitted Episodes Dataset (VAED) and the number of public sector residential aged care bed days for the reporting period reported to the Aged Care Branch, Department of Health

## **ED Departures**

Discharge of a patient from the emergency department to either another hospital department, or out of the hospital (same as ED Presentations).

## Floor Area (Gross M2)

Gross floor area of a facility includes internal wall thicknesses and columns. Excludes service cupboards, passing risers, fire stairs, lifts and lift shafts.

## Length of stay (LOS)

See Bed Day

## Normalised

A factor that makes the norm or associated quantity comparable.

## **Per Patient Treated**

Aggregation of bed day, separation and ED departures.

## **Recycling Rate**

The Recycling Rate is the total weight of recycled material divided by the total of general (landfill) waste and recycled material

## **Recycled Water**

Typically, Class A recycled water, which is purchased from a water authority.

## **Reclaimed Water**

Water recovered and re-used at a Facility, with little or no treatment. Examples include the recovery of water from sterilisation, rainwater and dialysis reverse osmosis equipment.

## Separations

The movement of a patient from one department to another. This includes discharge from a hospital.

## Chief Executive Officer's Message

Western Health's Environmental Management Roadmap 2015-2020 (the Roadmap) is a key enabler to the realization of Objective 1 of Strategic Aim 4 in the organization-wide strategic plan to optimize constrained resources. Western Health aims to be a socially responsible healthcare service that uses resources sustainably. In this endeavor we partner with the community to develop a system wide approach to health and wellbeing in the West. Western Health is focused on operating sustainably in accordance with our social, environmental and economic responsibilities.

## SPECIFIC AIMS OF THE ROADMAP ARE TO:

- Align Western Health's environmental sustainability priorities with the needs and expectations of patients, staff and its wider community
- Establish clear responsibilities and accountabilities for all staff at Western Health to move further into environmental sustainability and build a culture of corporate social responsibility.
- 3. Provide appropriate resources and training to Western Health staff in their role to support and develop Western Health as an environmentally sustainable healthcare service.
- 4. Manage environmental resources responsibly and efficiently in an effort to reduce the impact of Western Health's operations.
- Connect broadly on issues of sustainable development to inform the direction and 'greening' in Western Health operations and services.

Research has become a significant focus within Western Health's environmental management program. Projects investigate key themes that help understand and unpack the complexity of environmental impacts in healthcare products and services. Western Health has strong clinical champions that support this program towards continuous improvement, helping decision-makers to make informed decisions on critical issues that can help to minimise the environmental impact of healthcare. In fact, without such enquiry such decisions invariably default to a purely financial perspective, thereby externalising social and environmental impacts.

Local Sustainability Action Plans' (LSAP) are a key strategy in delivering outcomes within Western Health's Environmental Management Roadmap 2015-2020. LSAPs are developed in collaboration with Departments and Clinical Areas to identify distinct opportunities. Local knowledge (Ward; Department) is actively bridged by research and support (Sustainability Officer) to make well-rounded plans aimed at improving environmental outcomes for the whole of Western Health. The Local Sustainability Action Planning process also offers staff with a sincere interest in environmental issues, the chance to engage in organisational objectives.



Associate Professor Alex Cockram MBBS, M.Med (Psych), FRANZCP Chief Executive

## Introduction

Environmental sustainability is embedded within the structure of Western Health through high-level support and organisational governance. More importantly, the team approach has enabled sustainability to achieve real outcomes.

Western Health's environmental program has the following elements:

- · Sustainability Committee
- Environmental Policy
- Environmental Management Strategy
- · Extensive, innovative, prolonged recycling programs
- Annual calendar of staff engagement events/ campaigns
- Communication channels for environmental sustainability
- Local Sustainability Action Plans in Departmental and Clinical areas
- Teams of Green Champions conducting voluntary action and research

A fresh new approach is adopted in Western Health's *Environmental Management Roadmap 2015-2020*, focussed on developing Local Sustainability Action Plans (LSAPs) in departments and clinical areas. Principles of 'co-design' have been incorporated into the development of Plans, encouraging local knowledge to guide action plans and nested governance to occur. It is intended that fifty LSAPs be developed over the 2015-2020 period to further embed environmental sustainability into the minds and hearts of staff at Western Health.

In the 2015/16 the following areas have adopted Local Sustainability Action Plans:

- Health Support Services
- · People Services
- Public Affairs
- · Anaesthetics Department
- · Cardiology Labs (x2)
- Coronary Care Wards (x2)
- Footscray Emergency Department
- Pharmacy Department
- · ICT Department

More than a dozen long-term recycling programs now operate at Western Health. Being highly dependent on staff awareness and compliance, education and communication channels are imperative to help staff do the right thing.

Recycling hospital waste is one strategy to reduce waste disposed as landfill, preserve resources, reduce greenhouse gas emissions, and potentially remain fiscally responsible. Since 2009 Western Health has steadily increased diversion of waste from landfill to where it currently sits at 35%.

Western Health takes pride in contributing to the emerging body of research around environmental sustainability in healthcare. A fundamental problem that Western Health, and all healthcare networks face, is the degree of unknowns associated with 'pro-environment' choices that leave potential projects open to conjecture. Predicting an environmental impact is not straightforward when it has not been documented before.

A key driver in the program is the need to understand more unknowns. This is approached via rigorous environmental research that will offer all stakeholders confidence in supporting pro-environment decisions or business cases that are otherwise borderline, controversial, new or innovative.

This Report offers an update on resource consumption and activities undertaken to improve resource efficiency in the financial year 2015/16.

## Environmental Data Management System (EDMS)

In this 2015/16 financial year, Western Health migrated to a new webbased environmental data management system (EDMS) administered by the Victorian Department of Health with support from selected health services, Health Purchasing Victoria, and the provider Eden Suite. It provides a standardised platform for the management of environmental and utility data.

The EDMS automates collection, validation and reporting of environmental data. It is intended that the EDMS will manage usage and cost data for: energy, water, waste, transport, paper, and medical gases in time, however only energy and water have been migrated to date. Where data is available electronically it is uploaded automatically from suppliers, via Health Purchasing Victoria. Where electronic data is not available, it has been entered manually. For this reason, there has been necessary adjustment to Western Health's environmental data baseline, however it is not material. Adjustments are made transparent throughout the summary data and will be adopted to be the new baseline going forward. In 2015/16 reporting, Western Health has adopted Department of Health's definition of recycled material, which is historically different. The new definition is *the total weight of recycled material divided by the total of general (landfill) waste and recycled material = Recycled material.* Prior formula used has been the total weight of recycled material divided by the total of general (landfill) waste. Please see adjustments made transparent in the Waste section of this report.

The EDMS replaces the energy and water report in the Department of Health's Agency Information Management System (AIMS). Historical information reported into AIMS is uploaded by the department into the EDMS to allow trending of data from 2005-06.

# Activity and Expansion

Overall Western Health is increasing its service year on year and the acuity of its patients. In 2014, Western Health expanded its tertiary activities at Sunshine Hospital to include a cardiology laboratory, together with more complex surgery and patients. This was possible with the addition of a new 13 bed intensive care unit that can provide medical backup for higher acuity patients. Whilst this heralds a much improved service to community needs, it challenges waste minimisation and energy conservation priorities.

Normalisers	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Aged Care OBD	31,210	36,954	10,203	17,012	-	-
ED Departures	92,314	91,176	88,493	90,684	89,713	89,053
LOS/OBD	323,548	348,973	329,114	319,362	333,738	338,586
M2	104,167	116,708	129,037	128,681	128,000	129,026
Total patients treated	549,669	589,414	537,055	538,208	538,788	550,432
Separations	102,597	112,311	109,245	111,150	115,337	122,793

## TABLE 1 NORMALISERS FOR PATIENT ACTIVITY DATA

# Environmental impacts

As per the requirements for Victorian public health services, and in accordance with the Department of Health Policy and Funding Guidelines 2012-13, details are provided on the following environmental impacts:

- Greenhouse gas emissions (Scope 1 & Scope 2)
- Energy use
- Water use, and
- Waste generation

The reporting boundary used for greenhouse, energy, water and waste impacts in this report are for those operations and services where Western Health pays energy and fuel bills (all sites). This includes all Western Health services and extra utilities from services shared with other healthcare networks (Mercy / Royal Childrens Hospital and Melbourne Health share the delivery of mental health services onsite. This reporting boundary is in line with Western Health's National Greenhouse and Energy Reporting (NGER).

## Greenhouse gas emissions

(Scope 1 & Scope 2)

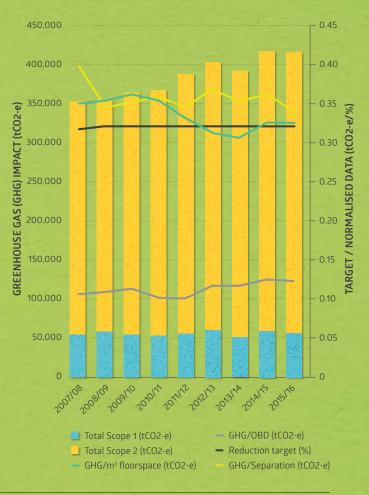
The health sector's mandate is to prevent and cure disease. Yet the delivery of health care services, most notably in hospitals, often inadvertently contributes to the problem. Hospitals generate significant environmental health impacts both upstream and downstream from service delivery, through the natural resources and products they consume, as well as through the waste they generate.

To address this environmental challenge, Western Health monitors and measures the environmental impacts of its operations and takes active steps to mitigate them. Table 2 (below) offers a snapshot of the greenhouse impact of operations over time and in relation to the normalizing factors of building footprint (m2 floor space) and patient activity (bed days; separations).

In 2015/16 Western Health reduced its overall greenhouse impact by marginally (0.9%), however in line with aspirational targets that have taken into account the addition of energy intensive areas under the same roofline. Similarly, patient activity remains stable in the face of energy reduction. This is anticipated given that the new ICU / Cardiology Laboratory area at Sunshine Hospital treats fewer patients with higher acuity (using more energy). Projects that have enabled stabilisation in greenhouse gas emissions are explained in Energy section of this report.

Western Health is a member of the Pacific Region of the Global Green and Healthy Hospitals network, a project coordinated in Australia and New Zealand by the Climate and Health Alliance, with the support of Health Care Without Harm. In November 2015, Western Health hosted the fourth annual Greening the Healthcare Sector Think Tank was held at Footscray Hospital with the Climate and Health Alliance (CAHA). The Think Tank was attended by over 40 health sector leaders, including health service executives, directors of nursing, professional medical and nursing / midwifery organisations, clinicians, sustainability officers, educators, health union representatives, and operations/ facilities managers. A series of inspiring speakers was followed by an afternoon of stimulating discussion.

## **GREENHOUSE GAS (GHG) IMPACT**



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## **TABLE 2 GREENHOUSE GAS EMISSIONS**

Total greenhouse gas emissions (tonnes CO2e)	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Scope 1	5,334	5,702	6,135	5,236	6,009	5,656
Scope 2	31,515	33,092	34,227	34,075	36,093	36,049
Total	36,849	38,794	40,362	39,311	42,102	41,705
WH historical baseline	37,419	39,521	41,649	40,680	41,813	41,705
Difference from previously reported (internal) data and DoH EDMS (%)	102%	102%	103%	103%	99%	100%
Normalised greenhouse gas emissions	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
	2010/2011 353.75	2011/2012 332.40	2012/2013 312.80	2013/2014 305.49	2014/2015 328.92	2015/2016 323.23
emissions Emissions per unit of floor space						

### Notes:

Data includes Scope 1 and Scope 2 emissions.

Scope 1 direct (or point-source) emissions include all emissions produced onsite that are material (>5%) to the operations and services of Western Health; transport fuel used in operation of WH fleet; gas consumption for all sites and diesel consumption for generators (volumes estimated; not material).

Scope 2 (indirect) emissions from the generation of the electricity purchased and consumed by Western Health are produced by the burning of fuels (coal) at the power station, namely peak & off peak electricity consumption for all sites.

Data has been sourced from energy retailers / suppliers (electricity and gas), fuel receipts (diesel for generators) and fuel cards (transport fuel).

Fuel types have been converted to GHG emissions by using the listed emissions factors from the current National Greenhouse Accounts (NGA) Factors publication August 2015

tCO2-e = tonnes of CO2 equivalent

GHG = greenhouse gas

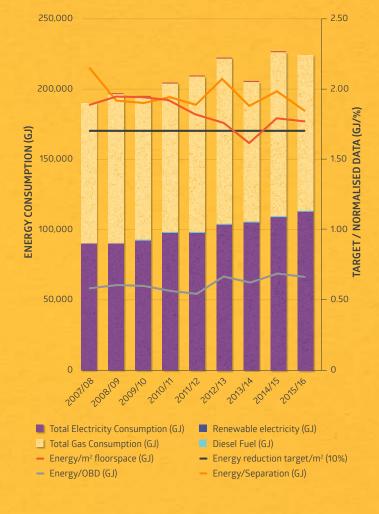
- 1 kWh of electricity purchased from the Victorian grid = 1.18 kg CO2e 1 GJ of natural gas = 51.2 kg CO2e
- 1 GJ of diesel used for standby electricity generation = 69.2 kg CO2e
- 1 GJ of automotive gasoline (unleaded petrol) = 66.7 kg CO2e
- 1 GJ of automotive diesel oil (diesel) = 69.2 kg CO2e

## Energy

Western Health consumes significant amounts of fossil fuel energy. Historically it has been increasing energy consumption over time, in line with new buildings and patient services.

In 2015/16 the challenge has been to plateau energy impact in the face of increasingly energy intensive services, which it has done successfully (reduced by 1.6%. The addition of Sunshine Hospital's new ICU / Cardiac complex increases electricity usage by 140MWhrs (or 504GJ) per annum. In an effort to mitigate this growth in consumption and associated greenhouse gas emissions it endeavoured to complete several energy efficiency projects detailed below.

- Endorsed business case for large scale (300kW) solar electricity at Sunshine Hospital for installations in the coming year.
- LED lighting roll out to Sunshine and Williamstown Hospitals in February 2016 – approx.14,000 lamps anticipate savings of 1,200MWh (4,320GJ) electricity p.a.
- Steriliser Project (research publication) saving 66MWh electricity (238GJ) p.a.
- Breathing circuit washing project (research publication) saving 8MWh electricity p.a., and 100,000L water p.a.
- Collaborative research project with Masters Students of University of Melbourne to measure the environmental impact of Footscray Hospital Operating Theatres.
- Anaesthetics Department funded purchase of 3.2kW solar system at 9 Eleanor Street, Footscray (Drug and Alcohol Services) to offset greenhouse gas emissions associated with their practice as part of their Local Sustainability Action Plan



## NORMALISED ENERGY CONSUMPTION

## **TABLE 3 ENERGY CONSUMPTION**

Total energy consumption by energy type (GJ)	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Electricity	92,238	98,456	103,545	104,845	107,840	111,960
WH historical baseline	95,500	97,736	105,881	105,890	107,499	111,960
Renewable energy - onsite	36	41	56	58	63	59
Natural Gas	103,925	111,086	119,523	102,013	117,072	109,819
WH historical baseline	108,794	109,645	123,886	110,921	123,400	109,819
Fuel (stationary and fleet)	3,836	3,351	4,180	3,998	3,497	3,042
Total gigajoules (GJ)	200,035	212,934	227,304	210,914	228,472	224,881
WH historical baseline	208,130	210,732	233,947	220,808	234,395	224,881
Difference from previously reported (internal) data and DoH EDMS (%)	104%	99%	103%	105%	103%	100%
Normalised energy consumption	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Energy per unit of floor space (GJ/ m2)	1.92	1.82	1.76	1.64	1.78	1.74
Energy per unit of Separations (GJ/ Separations)	1.95	1.90	2.08	1.90	1.98	1.83
Energy per unit of (LOS+Aged Care OBD) (GJ/OBD)	0.56	0.55	0.67	0.63	0.68	0.66

## Notes:

Data includes electricity, gas and onsite fuel consumption (diesel) and Fleet (diesel and ULP).

GJ = gigajoules

## Water

Water consumption has risen significantly compared to the 2014/15 period due to a problematic leak that persisted over several weeks.

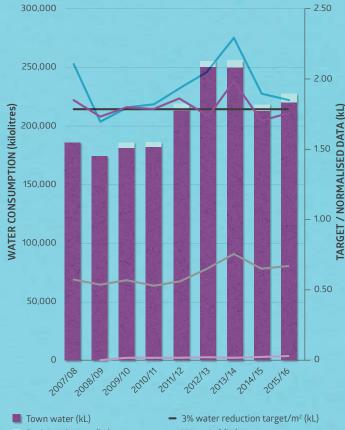
Building footprint metric indicates operational water conservation, whereas Bed Days and Separations reflect the environmental impact of patient hygiene and treatment.

During 2015/16 Western Health installed wireless metering on two water tanks at Sunshine Hospital (ASB and Dialysis Facility). This more accurately determines the volume of harvested water supplementing operations.

Water conservation projects achieved in 2015-16 include:

- Extended the use of e-water to replace chemical usage at Sunshine Kitchen
- Retrofit of 6 pan sanitisers to benchmark energy / water conservation
- New cleaning chemicals contract to purchase environmentally friendly products that reduce water consumption and volume of chemicals used in cleaning processes
- Water Awareness Campaign

## NORMALISED WATER CONSUMPTION (KL)



Reclaimed water (kL)

- Water/m<sup>2</sup> (kL)
- Water re-use/recycling rate (%)
- Water/OBD (kL)
- Water/Separation (kL)

Total water consumption by type (kL)	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Class A Recycled Water	-	-	-	-	-	-
Potable Water	182,443	214,153	219,185	253,835	229,160	248,877
Reclaimed Water	4,603	4,814	5,250	5,406	5,270	7,000
Total	187,045	218,967	224,435	259,241	234,430	255,877
WH historical baseline	193,789	226,020	241,550	253,163	216,477	255,877
Difference from previously reported (internal) data and DoH EDMS (%)	104%	103%	108%	98%	92%	100%
Normalised water consumption (Potable + Class A)	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Water per unit of floor space (kL/m2)	1.80	1.88	1.74	2.01	1.83	1.98
Water per unit of Separations (kL/ Separations)	1.82	1.95	2.05	2.33	2.03	2.08
Water per unit of (LOS+Aged Care OBD) (kL/OBD)	0.53	0.57	0.66	0.77	0.70	0.76
Water re-use and recycling	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Reclaimed Water	2.5%	2.2%	2.4%	2.1%	2.3%	2.8%

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Waste generation

Recycling hospital waste is one strategy to reduce landfill, preserve resources, reduce greenhouse gas emissions, and potentially remain fiscally responsible.

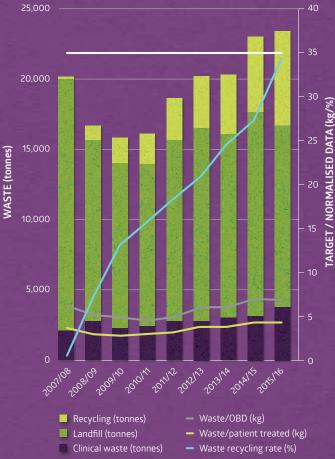
Waste volumes have moved dramatically with transition to the HPV waste contract (with SteriHealth). Volumes of landfill are reduced by 11% and volumes of recycling are increased by 24%. Unfortunately, volumes of clinical waste also increased by 19% with the addition of a new ICU and Catheterisation Laboratory. For details please see Table 5 below.

Western Health has produced excellent waste minimisation outcomes during 2015/16 with its strategic changes. More than a dozen recycling programs have operated for some years now at Western Health and 2015/16 has been about leveraging awareness and engagement with them by all staff.

Capital investment in two fully commingled recycling compactors (Footscray and Sunshine Hospitals) enabled amalgamation of paper, cardboard and commingled recycling streams into one recycling stream and one internal commingled recycling (Green Office Program). This has delivered significant increase in volumes of waste recycled, and diversion from landfill overall.

Correct waste segregation is dependent on staff compliance, therefore education and communication channels have been recognised as imperative to help staff do the right thing. Western Health communicates environmental massaging with via Sustainability News (bi-monthly update), face to face education and regular communication channels. 477 staff received face to face education or online on recycling and / or clinical waste segregation education in 2015-16.

## NORMALISED WASTE GENERATION AND RECYCLING



Waste Awareness Week was held again in December 2015 and continues to raise awareness of the various recycling streams available to staff at Western Health. It encourages familiarity, questions and feedback on correct use of bins.

- Revitalised the Green Office Program with new commingled compactors and fresh, new internal commingled recycling bins across Western Health
- Commenced new recycling steam: Construction Materials
- ICT Department continue to implement initiatives to reduce paper usage and the environmental impacts

associated with printing via Sharepoint and e-Pace, an online facility that enables digital sharing of forms internally and externally.

- Developed further shared online resources with
  Vinyl Council / Baxter Healthcare to support the PVC
  Recovery in Healthcare Program globally.
- Rolled out the Single-use Metal Instruments Recycling Program across Western Health
- Took opportunities to offer medical equipment and consumables for reuse via their partner program with Rotary's Donations in Kind.

Waste type	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Clinical waste (tonnes)	237	268	278	297	317	376
CW Bagged (tonnes)	212	241	257	270	290	345
CW Sharps (tonnes)	25	27	21	28	27	31
Landfill (tonnes)	1,155	1,297	1,380	1,309	1,444	1,290
Recycling (tonnes)	216	293	367	430	546	679
Total waste generation	1,608	1,858	2,025	2,036	2,307	2,346
Normalised waste data						
Waste type	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Waste / OBD (kg)	4.53	4.81	5.97	6.05	6.91	6.92
Waste / patient treated (kg)	2.78	3.01	3.54	3.54	3.99	3.93
Historical waste recycling rate (%) used the formula of the volume of recycling divided by the volume of landfill	16%	18%	21%	25%	27%	35%

## **TABLE 5 WASTE GENERATION**

**Note:** Historically waste was reported differently. Going forward, waste is reported per patient treated (sum of Aged Care OBD; ED Departures LOS; and Separations). The Recycling Rate is determined using the total weight of recycled material divided by the total weight of general (landfill) waste plus the total weight of recycled material = Recycled material.

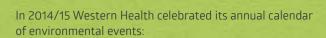
## Greening

During 2015/16, Western Health continues to move staff culture towards greater environmental awareness. It demonstrates leadership by helping other healthcare networks to do the same. Sharing case studies, environmental research, hosting events, onsite demonstrations and regular offsite presentations to new audiences together demonstrate our commitment to progressing the dialogue on environmental sustainability in healthcare. Some of the ways it demonstrated environmental improvement in the 2015-16 period were as follows:

A core group of Western Health staff continued to produce peer reviewed research around the topic of environmental sustainability in healthcare. These reports add to a growing profile of research to assist decision-makers and policy makers alike in making informed choices in moving towards more environmentally sustainable healthcare operations.

- Mark A Kubicki, Forbes McGain, Catherine J O'Shea, Samantha Bates Auditing an intensive care unit recycling program. Crit Care Resusc. 2015 Jun;17(2):135-40
- Forbes McGain, Katherine Maria Jarosz, Martin Ngoc Hoai Huong Nguyen, Samantha Bates, Catherine Jane O'Shea Auditing Operating Room Recycling: A Management Case Report. A A Case Rep 2015 Aug;5(3):47-50
- Forbes McGain, Graham Moore, Jim Black Steam sterilisation. Aust Health Rev 2016 Apr 14. Epub 2016 Apr 14.
- Forbes McGain, Graham Moore, Jim Black Hospital steam sterilizer usage: could we switch off to save electricity and water? J Health Serv Res Policy 2016 Jul 13;21(3):166-71. Epub 2016 Jan 13.
- Sue Huang, WH Volunteer, led a research project to investigate Staff and patient perceptions towards environmental sustainability at Western Health and their manifestations in the workplace or in patient experience with care. This project led to interesting practical findings and aims to be published.





- National Tree Day;
- Ride 2 Work Day;
- National Recycling Week (Waste Awareness Week);
- and World Environment Day.

This year World Environment Day was punctuated by the awarding of Western Health's inaugural Green Ward Competition. Seven entries were received, with ICU / Anaesthetics Department winning \$1,000 for their team submission. The project demonstrated how they had developed a recycling program within a research framework to secure continuous improvement on the diversion of waste from landfill to recycling. Collectively this voluntary action by staff has achieved the following results in 2015/16:

- Reduced electricity use by 66,000 kilowatt hours;
- Reduced water consumption by 1,004 kilolitres;
- Reduced waste to landfill by 15,630 kilograms; and
- Reduced greenhouse gas emissions by 105.13 tonnes (CO2-e)

Western Health contracted a new supplier for basic cleaning products. The contract revision was able to reduce basic cleaning products purchased from thirteen types to five and dispense them via a measured dosing system to reduce wastage. Chemical concentration is increased in these products and packaging volumes are reduced (bladders instead of bottles).

Table 6 details how Western Health is getting the same outcomes with reduced environmental impacts via the volume of chemicals used. Waste and logistics associated with transportation are also dramatically reduced.

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Category	Supplier	Dilution Rate	ML per 100	Reduction
Air Freshener	Old Product	1:50	2	35.00%
	New Product	1:75	1.3	
Bathroom Cleaner	Old Product	1:10	10	87.00%
	New Product	1:75	1.3	
Glass Cleaner	Old Product	1:5	20	96.50%
	New Product	1:150	0.7	
Neutral Cleaner	Old Product	1:100	1	60.00%
	New Product	1:250	0.4	

## Progress against targets

## TABLE 7 CONTRIBUTING ACTIONS IDENTIFIED FROM WH ROADMAP ACTIVITIES

	Target	Progress against target
Energy	Install solar electricity in new buildings, as roof space allows.	Business case endorsed for 300kW solar electricity at Sunshine Hospital.
	Reduce electricity consumption at Williamstown Hospital by 5% compared to 2014/15 baseline.	Reduced electricity consumption by 5.9% in relation to 2014/15 baseline.
	Maintain 2014/15 energy efficiency /m2 floor space and in relation to activity in the face of additional energy intensive services (by July 2016) across Western Health.	Energy efficiency maintained (reduced 1.4%) in the face of additional energy intensive services, and reduced with regards activity (GJ/ Separation by 6.6%; GJ/OBD by 2.1%)
	Reduce the greenhouse intensity of energy portfolio in operations compared to 2014/15 baseline by July 2020.	Energy intensity of WH operations currently 99.3% of 2014/15 baseline.
Water	Increase harvested water volume and reuse by 5% by July 2020 in comparison to 2014/15 baseline.	Increased water reuse by 0.7% during 2015/16.
	Improve water efficiency in relation to floor space and activity compared to 2014/15 baseline.	Water efficiency increased by 3% compared to 2014/15 baseline

	Target	Progress against target
Waste	Continue to increase diversion of waste from landfill by 2.5% per annum compared to 2014/15 baseline.	Diversion from landfill increased by 8% compared to 2014/15 baseline.
	Clinical Waste Segregation Education Package seen by 500 clinicians.	477 staff received face to face education or online on recycling and / or clinical waste segregation education
Greening	5 Green Champion led projects registered in each Annual Green Ward Competition.	7 projects registered during 2015/16
$\bigcirc$	Celebrate environmental calendar events annually: National Tree Day; World Environment Day; Ride2Work Day; National Recycling Week.	All events punctuated with staff engagement activities during 2015/16
	Decrease the volume of cleaning chemicals used in operations by 10% compared to 2014/15 baseline	Ecolab contract rollout in June/ July 2016, substantially reducing chemical types and volumes compared to 2014/15.
	Develop comprehensive Local Sustainability Action Plans in 25 business units (5 per annum).	Five LSAPS Competed in 2015/16
	Reduce the environmental impact of paper by 10% per FTE in relation to 2014/15 baseline by 2020.	Action not commenced.
	Develop Clinical Local Action Plans in 25 clinical areas (5 per annum).	Five CLAPS Competed in 2015/16



## www.westernhealth.org.au

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WILLIAMSTOWN HOSPITAL Railway Crescent Williamstown VIC 3016 9393 0100 SUNSHINE HOSPITAL RADIATION THERAPY CENTRE 176 Furlong Road St Albans VIC 3021 8395 9999

DRUG HEALTH SERVICES 3-7 Eleanor Street Footscray VIC 3011 8345 6682 WESTERN CENTRE FOR HEALTH RESEARCH AND EDUCATION Sunshine Hospital Furlong Road St Albans VIC 3021 8345 1333

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