



Environmental Sustainability Report 2017

ACKNOWLEDGEMENTS

The Kooweerup Regional Health Services would like to acknowledge all our volunteers and thank them for their attention, dedication and effort that goes into making the projects at Kooweerup Regional Health Service possible.

We also wish to acknowledge the traditional custodians of the land on which the hospital, service buildings and gardens are located. We pay our respects to the Boonwurrung people of the Kulin Nation and their Elders past and present.

This report is supported by the Kooweerup Regional Health Services.

Written by Aileen Thoms, Manager of Community, Health Promotion and Allied Health and Kim Fitcher, Public Health and Health Promotion student Deakin University, February 2017.

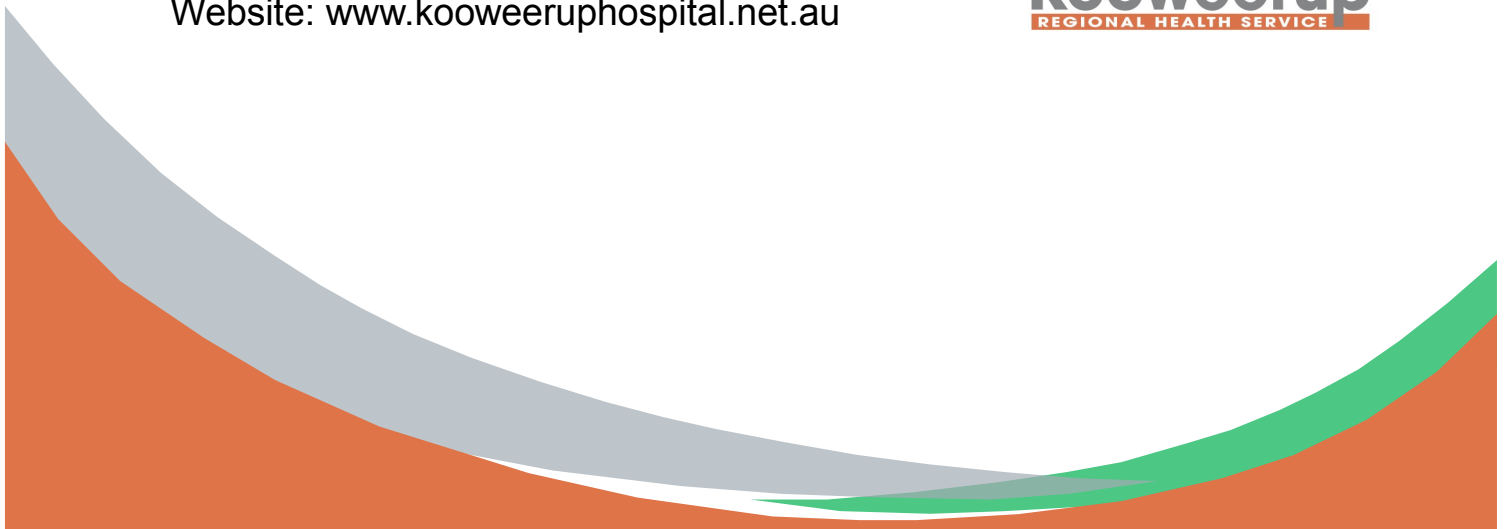
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Kooweerup
REGIONAL HEALTH SERVICE



Welcome

We live in unpredictable times and research reveals that climate change will be one of the most significant challenges that we will face (WHO 2009). It will influence both individuals' and the communities' health and wellbeing.

Cardina Shire is an area vulnerable to climate change and has experienced the impacts of severe weather though floods and bushfire. Our goal is to ensure we support our community to become resilient to the health, social and environmental changes ahead.

Kooweerup Regional Health Service was one of the first health services in Victoria to integrate Health Promotion which has enabled Climate Change to be recognised as a priority issue.

We believe we are one of the leading health services in Victoria working towards addressing this important health issue.

Health services are one of the largest service industries in Australia with significant environmental footprints. They are large consumers of energy, water, clinical and chemical products, and large producers of waste.

Kooweerup Regional Health Service is committed to providing high quality healthcare and has adopted a philosophy of addressing sustainability in health while delivering a wide variety of services and activities. By working to promote sustainable living in the workplace and wider community, Kooweerup Regional Health Service are providing a number of initiatives to strengthen community resilience and create awareness of environmentally sustainable actions. It is important we support actions which enable both adaptation to the impacts of climate change and mitigation of carbon emissions which fuel this change.

On site we have a community fruit and vegetable garden where volunteers can come and interact, the Hewitt Eco-house where community information and sustainability practices are showcased and the Men's Shed, which also houses a community kitchen and computer hub.

The Kooweerup Regional Health Service has analysed local disaster risks due to climate change and has adopted a number of policies to address these risks, such as the Environmental and Sustainability Development Management Policy, Community Engagement Policy, Department of Health - Weather Alerts, the District Nursing Client Risk Assessments and the Emergency Evacuation Management Plan.

As leader of the Health Promotion Team, I am very proud of the work accomplished at the Kooweerup Regional Health Service by the hospital staff and all the people who contribute to our sustainability goals. Our work has been recognised, the Global Green Health Hospital's 2020 Health Challenge, we were awarded Gold for Leadership and Silver for Resilience, we were also finalists in the Banksia Small Business awards in 2015. We are a smoke free facility and a participant in the Victorian Healthy Together Achievement program.

I want to encourage you to join us, participate, volunteer, learn, share and make new friends which will not only benefit you, but serve to strengthen our community and reduce the negative impacts of climate change. Let us work together –

Towards a Healthier Community

Aileen Thoms

Manager of Community, Health Promotion
and Allied Health.

20th February 2017



About the Kooweerup Regional Health Service

Kooweerup Regional Health Service (KRHS) is a public hospital located within the Shire of Cardinia in Victoria, Australia. It services the Outer South Eastern region of Melbourne and adjacent rural areas of the Casey, Cardinia and Bass Coast shires.

The Kooweerup Health Service has been providing a broad range of health services to the local community since 1921, when it first opened its doors as a Bush Nursing Hospital.

Today, the Kooweerup Regional Health Service (KRHS) is a multi-service agency and provides a range of hospital and community based services.

The KRHS are members of the International Hospitals' Health Promoting Network, the Climate and Health Alliance and Global Green Healthy Hospitals who are dedicated to promoting greater sustainability and environmental health, with a view to strengthen health systems globally.

The Global Green Healthy Hospital has 742 members across the world and represent the interests of 21,700 hospitals and health centers.



AWARDS: Kooweerup Regional Health Service are proud Climate Champions for 2016 for the Pacific Region winning;

GOLD – Climate Leadership

SILVER – Climate Resilience

These awards recognise the work carried out by the Health Promotion Team across the hospital that promotes action around environmental sustainability and preparedness for climate change impacts.



To view our story, go to: <http://www.greenhospitals.net/announcing-the-2020-challenge-climate-champions-of-2016>



Lea Duff – Communications Officer creating the popular bi-monthly hospital newsletter (2017).



Brian Harlow – Youth and Community Development worker (2017).

Koo Wee Rup's location

Koo Wee Rup is 75 km south east of Melbourne and is located at the head of Westernport Bay in Victoria, Australia.

The name 'Ku-wirup' comes from the language of the Boonwurrung people who traditionally used the area as a summer gathering ground.

Formerly swampland, it was drained in 1876 by carving large rivers and drains enabling agriculture.

Known today, as one of the biggest asparagus producing areas in Australia, beef and potatoes are also produced.



(www.cowesyachtclub.com)

Koo Wee Rup is one of the fastest growing urban communities in Victoria but it is still predominately rural. The loss of arable and pastoral land due to housing and infrastructure has changed the way people access fresh food. The urban sprawl has also impacted on the way people socialise and engage with each other. (Bishop, Thoms & Mason 2015).

After community consultation, the establishment of a community network was created to identify what the community needed.

Members of the Community Network

- Senior Hospital Management
- Health Promotion team,
- Aged care nursing staff
- Support staff and residents
- Local gardeners,
- Community members,
- Local government,
- Local schools,
- Other health organisations,
- Businesses,
- Youth groups and Environmental groups.



Members of the Community Network 2012.

A strategy was developed to build a community hub with the view to educate and support community action around resilience and sustainability

(Bishop, Thoms & Mason 2015).

Our commitment to sustainability

Kooweerup Regional Health Service is passionate about health, climate change and environmental sustainability for their patients, staff and the wider community.

In 2007, the organisation adopted a proactive approach to health to include the protection of the natural environment, conservation of resources and an increased community connectedness reflected in the values of the organisation.

“Towards a healthier community”

Environmental sustainability is recognised as a priority issue for Health Promotion and identified in the hospitals' 2015-2017 Strategic Plan. The Environmental Management Plan has strategies to address all departments, agency activities and delivery of services.

CLIMATE CHANGE

The United Nations' Intergovernmental Panel on Climate Changes' (IPCC) fifth report illustrates how global climate will affect human health both directly and indirectly as well as exacerbating health problems that already exist.

We are already experiencing increased fire weather, higher temperatures, intense storm activity, high rainfall and flooding (Climate Council 2016). In Australia, high winds and pollen have resulted in social disruption due to premature deaths and infrastructure damage (CNN 2016).

It is expected that climate change will lead to an increase in infectious diseases, food and water insecurity, decreased opportunities for social connections and reduced interaction with nature (Department of Health 2012). Changes in climate will affect the health of Australian communities in varying ways, depending on their underlying economic, geographic, social and health status (Bowen & Friel 2015).

Evidence suggests that the most affected will be the already vulnerable, such as the elderly, the chronically ill, the socio-economically disadvantaged and those with poor access to essential services and good housing (Walker & Mason 2015; Bishop, Thoms & Mason 2015).

Climate changes poses a real threat to natural resource management and the viability of communities that depend on natural resources for their livelihoods (Jacobs et al. 2015). Hotter summers, more frequent droughts and more intense storms and flooding are adding to the challenges of rural livelihoods (Jacobs et al. 2015).

For residents of the Cardinia Shire this may mean an increase in the consumption of electricity for heating and cooling, less access to fresh food and an increase in fresh food prices, all increasing house-hold expenditure.

ORGANISATIONAL RESILIENCE

While extreme weather events may be planned for. Research has found if significant damage is sustained, 50% of organisations will not be able to deliver their services effectively for up to one week after an extreme weather event (ARUP 2016), resulting in an increased tension on support resources for vulnerable people.

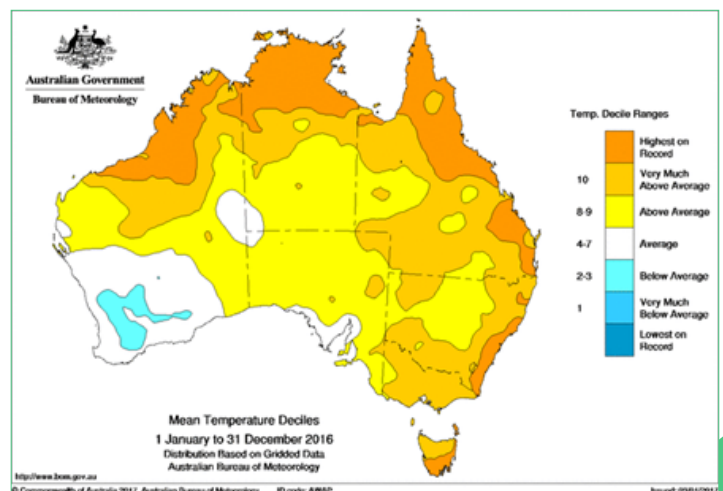
Mean Temperatures 1 Jan – 31 Dec, 2016.

EMERGENCY MANAGEMENT

Analysis of emergency policies and procedures underpins climate preparedness. The analysis identified gaps and strengthened current internal policies implemented at Kooweerup Regional Health Services. An example is Code Orange which addresses evacuation procedures for flooding in the region.

RISK ASSESSMENT

Building and infrastructure vulnerabilities were assessed by an Independent Environmental Sustainability Practitioner and initiatives such as the heat reflective coating on the residential care facility roof were implemented, reducing the heat load by between 5 – 15 degrees.



The District Nurses

The District Nursing team have implemented a comprehensive Client Risk Assessment initiative, Vulnerable People in Emergencies Register and a Severe Weather Register to guide and support staff and patients regarding climate change impacts.

A collection of information packs, flyers booklets and verbal discussions are held with all district patients. These are utilised to address local extreme weather events such as heat waves, bushfire alerts, high winds, high pollen alerts and flood warnings.

This information is constantly being reviewed, evaluated and modified to get the message across to individuals as well as ensuring staff are best protected when travelling out to remote locations.

Some of the Kooweerup District Nursing Team 2015.



Green House Gas Emissions

ENERGY MANAGEMENT

Kooweerup Regional Health Service's major source of greenhouse gas emissions are:

Scope 1: natural gas used as a fuel source.

Scope 2: electricity purchased from the grid.

Kooweerup's hospital energy consumption and related greenhouse gas emissions are largely influenced by the weather.

An energy audit was conducted in 2014 which supported transition to LED (Light Emitting Diode) lighting to reduce costs and the installation of solar tubes have introduced more efficient and updated technology.

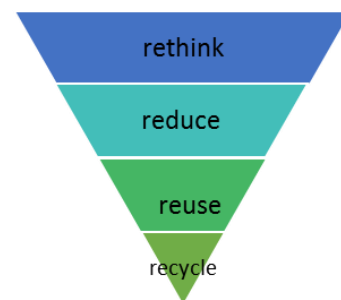
Kooweerup Regional Health Service – 2014/2015 Energy and Water Performance Report

Scope	Energy Use	Thousand Litres	MWh	kLitres	Tonnes CO ₂ -e
Scope 1	LPG gas for heating	112			172
Scope 2	Brown Coal Electricity		576		680
Water Use				4311	

(Vic State Gov 2016)

WATER MANAGEMENT

Water tanks have been added though-out the facility and collect rainwater which is then used on all of the gardens. The laundry uses ozone technology to reduce the need for hot water and extra chemicals. At the end of the 2013/14 financial year, KRHS was only 1 of 3 health services in the State of Victoria that reduced its water usage. The average for the peer group was 1.63 kLitres per m² and KRHS was 0.79 kLitres per m². This is 52% below average (DHHS 2015).



WASTE MANAGEMENT

The "Rethink, Reduce, Reuse and Recycle" philosophy encourages composting of green waste and segregation of hospital waste resulting in a reduction of waste to landfill by 40 tons in the first year it was introduced at the facility.

A Food Waste Audit was conducted in 2013 to better understand how KRHS managed the food waste from the kitchen area.

Food Waste is now composted and eventually used in the community and hospital gardens to improve plant growth and retain moisture.

A waste audit was undertaken in Westernport Unit in November 2016 and new bins and signage as well as staff education was implemented.

The Sustainable Food policy guides the kitchen staff to source local fresh seasonal produce and to offer more vegetarian options.

The staff and community can recycle a number of items such as household batteries, mobile phones, printer cartridges, can ring-pulls and spectacles and this is a popular and well used service.



Building resilience

Creating liveable communities allows individuals to support each other and is an important starting point. A settings based approach was implemented to address a series of complex issues and to create the Environmental Management plan. Current evidence suggests that community engagement improves quality, efficiency and effectiveness of programs, user satisfaction, strengthens local ownership and increases social connections (Demediuk 2009). The Health Promotion team manages programs such as the Men's Shed, Youth Resilience, the Community Garden, Environmental Sustainability workshops, Volunteering and a variety of community based programs which build trust, relationships and resilience. This in turn creates awareness and familiarity of the health services available, enabling residents to confidently access assistance as required.

HEWITT ECO HOUSE

This house has been transformed from a 1 star 1960s house to a 6-star energy efficient working space.

The Eco-house is the home of the District Nurses and the Health Promotion Team. It includes a Community Room that seats 20, AV capabilities and a modern smart TV available for use by the community.

The house offers a self-tour via the touchscreen that explores the many topics associated with environmental sustainability and climate change.



The touch screen in Hewitt Eco-House 2016.

THE MEN'S SHED

The Men's Shed overlooks the community garden and is a place for men to come together to share their skills, experiences and make new friends. It is a place of creativity, teamwork and connections and also allows men to have access to health information in a relaxed and informal way.

The Men's Shed stocks an extensive range of electrical and manual tools, houses a kitchen and computer hub. The men can learn to cook, create garden art from recycled implements, build furniture and provide general maintenance for themselves or the community, on request.



The Men's Shed (right) overlooking the garden. Hewitt Eco-house (left), 2015.

COMMUNITY GARDEN

Community gardens are recognised worldwide as a great way to grow food, improve your wellbeing, meet people, connect with the environment and the community. Food security and access to fresh locally produced food is an issue facing urban populations in developed countries like Australia.

Teaching communities how to grow, harvest and cook their own food in a community setting helps build resilience and social connections.

The Community Garden at KRHS was established in 2008 supported by a number of philanthropic grants. It was expertly designed to be a communal space and integrate permaculture techniques. The organic garden includes vegetables, herbs, a mini orchard, native gardens and a chicken coop.



Raised beds in the Community Garden 2017.

The Garden has a diverse range of raised and lowered garden beds to ensure access for people of varying abilities and includes pathway access for wheel chairs and prams.

Volunteers tend to the garden, plan new projects, plant or harvest, share skills and are always looking for new helpers. The garden operates on a pick and pay system with all proceeds going back into the garden.

Everyone is welcome.



The pond which is home to the native growling frog. The Community Garden in the background, 2017



Working in the Community Garden 2015.

COMMUNITY KITCHEN

Learning how to cook healthy meals from food grown in the garden builds confidence and enhances resilience.

Cooking groups enjoy teaching participants about foods in season, timing of plantings, harvesting and cooking methods. This includes simple healthy meals to making jams, chutneys and preserving.



Students learning how to cook healthy meals, 2014.

THE ENVIRONMENTAL PLEDGE

As a core component of new staff inductions, all workers and volunteers are invited to commit to the Environmental Pledge. This identifies a number of small actions which can reduce the individuals' environmental footprint such as inviting staff to turn off personal computers, lights and any unused electrical equipment. This is signed by the participant and in exchange they are given a free re-useable hot drink cup with a lid. The visiting coffee vendor gives a discount when the re-usable cup is used.



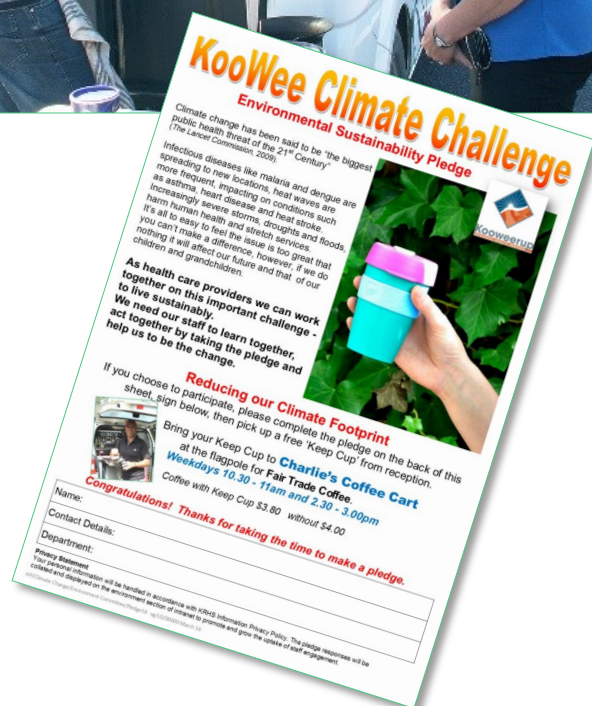
ENVIRONMENTAL SUSTAINABILITY WORKSHOPS

A series of environmental workshops are held throughout the year with a focus on climate change, environmental sustainability, healthy homes and livable communities. A number of topics are explored such as permaculture methods, variations of composting, worm farming, water capture, wicking bed, healthy homes and preserving eco-systems are among the regular and popular topics. Staff workshops for example; "Worker greener and why" enable nursing staff to build skills and knowledge.

District Nurses completing a workshop on Environmental Sustainability, 2016.



The coffee vendor filling the re-usable cup.



YOUTH PROGRAMS

Youth mentoring programs such as “Let’s Get Started” and the “Youth Clinic” helps to address and support youth who are having personal challenges and require some mentoring and guidance.

Environmental sustainability is built into these programs, encouraging young people to rethink, reduce, reuse and recycle.

The students have planted trees and created protective habitat for local fauna.



Students help to recycle and repurpose old furniture

CONNECTING WITH NATURE

Connecting with nature is good for us and demonstrated evidence reveals that natural environments provides us with physical, mental, social and spiritual health benefits (Townsend & Weerasuriya 2010). Natural settings help us cope better with stressors, illness, grief and injury.

Interaction with natural settings can provide a positive resource for health and wellbeing and support residents, patients and visitors. The grounds of the hospital enable views of nature for patients and residents, staff encourage interaction with nature and recommend parents attending the Early parenting program to spend lunch time in the garden.

Kooweerup Regional Health Service partnered with the Heart Foundation to establish a number of walking groups. They regularly schedule “Green walks” in natural environments and walkers report “enjoying the experiences” and “feeling more relaxed”.

Protection and conservation of the environment

Protection and conservation of natural resources deliver protective health benefits such protection from heat, wind and flood. They also provide a biodiverse habitat for local fauna such as the Southern Brown Bandicoot which is a threatened ground dwelling marsupial in the Koo Wee Rup region.

Funds from the collection of aluminium ring pulls, contributed to the building of “bandicoot palaces” to provide shelter and protect the Bandicoots. They provide a source of enjoyment for staff, patients, aged care residents and visitors who can spot them in the grounds.

*Southern Brown Bandicoot
– (Isoodon obesulus) lives
within the grounds.*



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Links

Global Green and Health Hospitals 2016, website, <http://www.greenhospitals.net/announcing-the-2020-challenge-climate-champions-of-2016/>

