

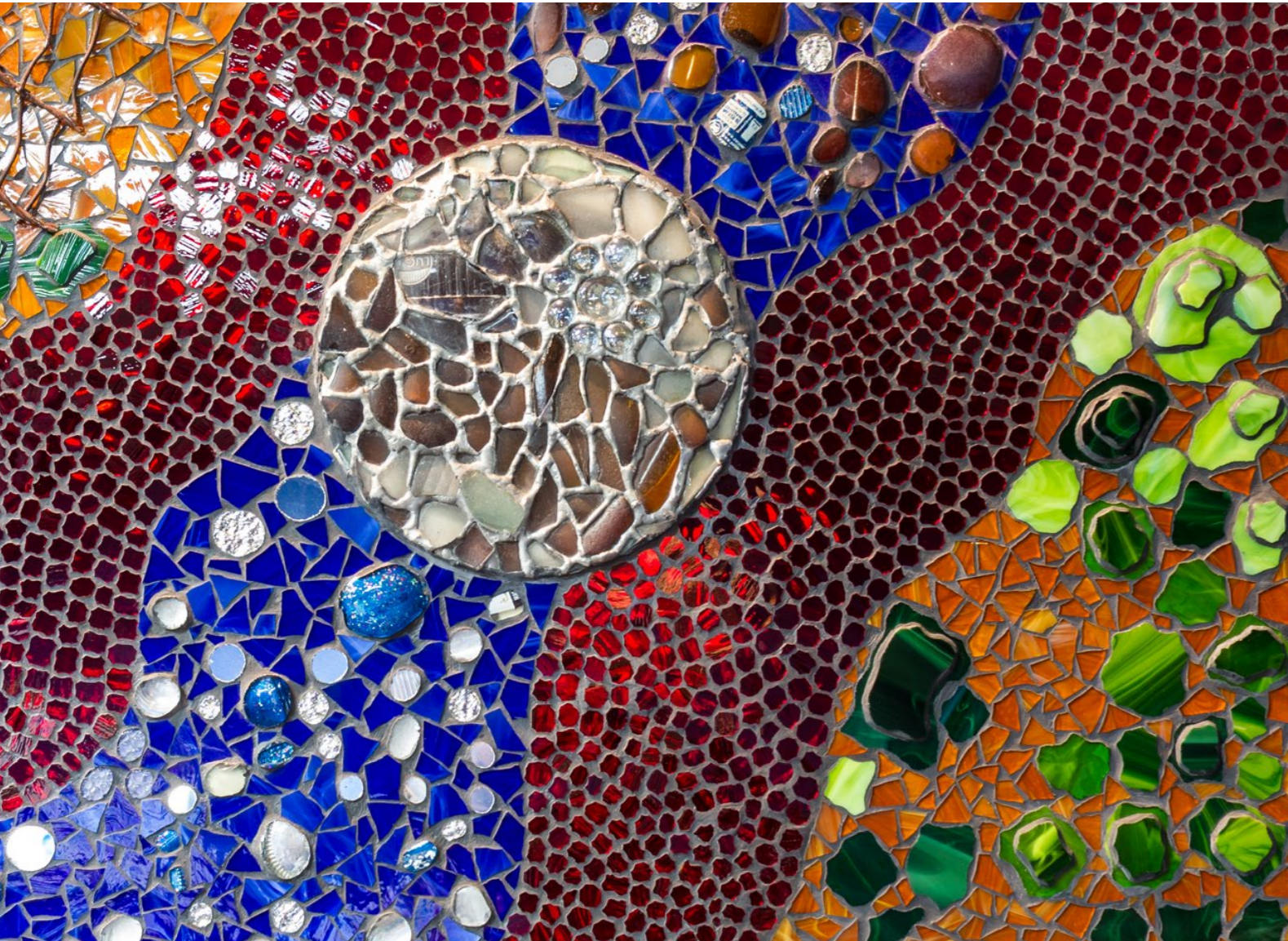


Charles Sturt
University



SUSTAINABILITY SCORECARD 2018

CSUgreen
sustain | ability



CONTACT

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Help us improve the scorecard.



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OUR COMMITMENT TO SUSTAINABILITY

Charles Sturt University is committed to its students, its staff and the communities that it serves. For these reasons, among others, it gives me great pleasure to introduce the 12th edition of our annual Sustainability Scorecard.

Integrating sustainable principles across all facets of an organisation is a complex challenge and one that may take many years to achieve. With this in mind, it is important we celebrate our successes and reflect honestly on the speed bumps we have encountered along the way. This is what we seek to achieve through annually publishing what we think is a very 'readable' Sustainability Scorecard.

The structure of the report continues to reflect our adoption of the Learning in Future Environments index as our method of ensuring a balanced approach to the areas we seek to improve in a way that reflects our strengths and core business as a university.

Building on our achievement of being Australia's first certified carbon neutral university in 2016, we continue to push ourselves to model best practice in sustainability with the adoption of a target to derive all of our energy needs from renewable sources by 2030.

We see this as part of the leadership role we can play in demonstrating that such a transition can occur in a commercially-viable manner much sooner than many may think possible.

With evidence of a changing climate and resource-constrained future finding its way into the news headlines on almost a daily basis, it provides me with great optimism that organisations like our own are taking deliberate steps towards a positive future for the generations that will follow us.


PROFESSOR ANDREW VANN
VICE-CHANCELLOR



CSU GREEN MESSAGE

A range of sustainability achievements have once again been made by Charles Sturt in 2018. At a university level, our next stage of key strategic goals have been established, with recognition of the LiFE sustainability index as a common University Indicator under the 2018-22 University Strategy.

An additional goal has been established for Charles Sturt to progress a financially-viable Clean Energy Strategy – to be delivered by 2030 – which will ideally see us eliminate all scope 1 and 2 emissions at the source by transitioning to 100 per cent renewable energy.

On-ground action has also been significant, with initiatives including our Stage 2 rooftop solar program, commencing at Charles Sturt University in Dubbo in September 2018. This will progress to our Albury-Wodonga, Bathurst and Orange campuses, ultimately delivering an additional 2.5 megawatts of onsite generation to the university's portfolio.

We were thrilled to receive a 2018 Athena SWAN Bronze Award, presented by Science in Australia Gender Equity (SAGE), which recognised our commitment to social sustainability. We also took out the Best Marketing Campaign award at Tertiary Access Group's 2018 CampusLink Awards for our War on Waste initiative, which targeted the elimination of single-use coffee cups and plastic bags from our on-campus retail outlets.

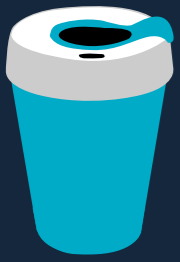
I'd like to thank all the members of our Charles Sturt University community who contributed to our sustainability improvements in 2018. Let's maintain the momentum and achieve wonderful things together in 2019!


ED MAHER
CSU GREEN MANAGER

91,891



CUSTOMERS BOUGHT THEIR OWN CUP TO CHEERS OUTLETS



52%

CONVERSION TO REUSABLE CUPS

STAKEHOLDER ENGAGEMENT



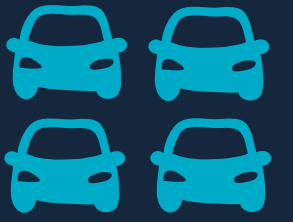
TOTAL TRAVEL BOOKINGS

12,385



VALUED AT \$7.2 MILLION

265



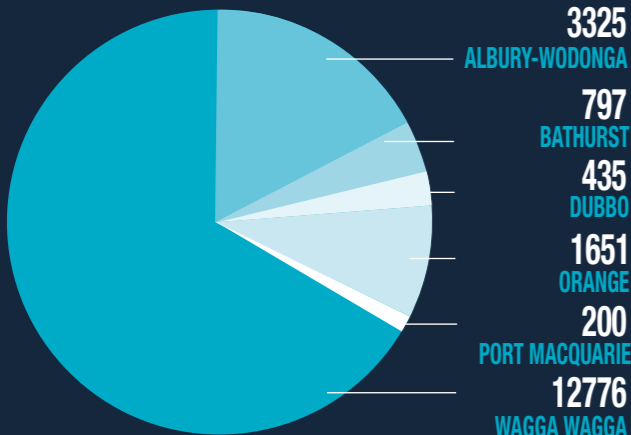
FLEET VEHICLES

TOTAL DISTANCE 3,908,219 KM

TREES PLANTED TO DATE



19,184



SNAPSHOT OF 20 SUSTAINABILITY 18

SOCIAL MEDIA FACEBOOK **1100** LIKES

TWITTER FOLLOWERS **474**

ADDED @CSUGREEN INSTAGRAM ACCOUNT

SOLAR INSTALLATIONS

448KW @

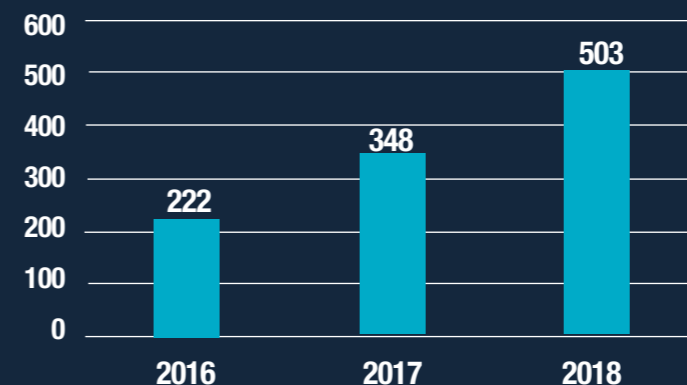
ALBURY-WODONGA

99KW @



DUBBO

MEALS COOKED FOR OZ HARVEST



65,000

PLASTIC STRAWS NO LONGER IN USE WITH OUR "STRAW NO MORE" CAMPAIGN

CARPOOLING 2259 TRIPS

SUSTAINABLE DEVELOPMENT GOALS



Charles Sturt University recognises the United Nations 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs) that have been established to underpin the Agenda. The SDGs provide a call for action by all countries via a global partnership.

They recognise that ending poverty must be addressed in parallel with strategies that improve prosperity and protect the environment. It is CSU's intent to make a proactive contribution to the progression of the SDGs through its operations, curriculum, research and engagement with the wider community.

This report has adopted the SDG's established icons that represent each of the goals. The intent of their inclusion is assist in building greater awareness of the SDGs and to illustrate areas where greater contributions are currently being made by Charles Sturt University.

“ The 17 Sustainable Development Goals (SDGs) are the world's best plan to build a better world for people and our planet by 2030.

”



OVERVIEW

WHAT ARE WE TRYING TO ACHIEVE IN SUSTAINABILITY?

The Charles Sturt University Sustainability Scorecard is an annual document providing an overview of the sustainability achievements and challenges of the university in 2018.

The purpose of this document is to involve and inform university students, staff and the wider community about the sustainability projects, initiatives and events occurring annually.

The Sustainability Scorecard is based on the progression of Charles Sturt's University Performance Measure for sustainability – a five per cent annual improvement in the rating for each of the four LiFE priority areas.

We provide a range of case studies and articles which shine a spotlight on the positive contributions made by staff and students to improve our performance in sustainability.

LEARNING IN FUTURE ENVIRONMENTS (LiFE) INDEX

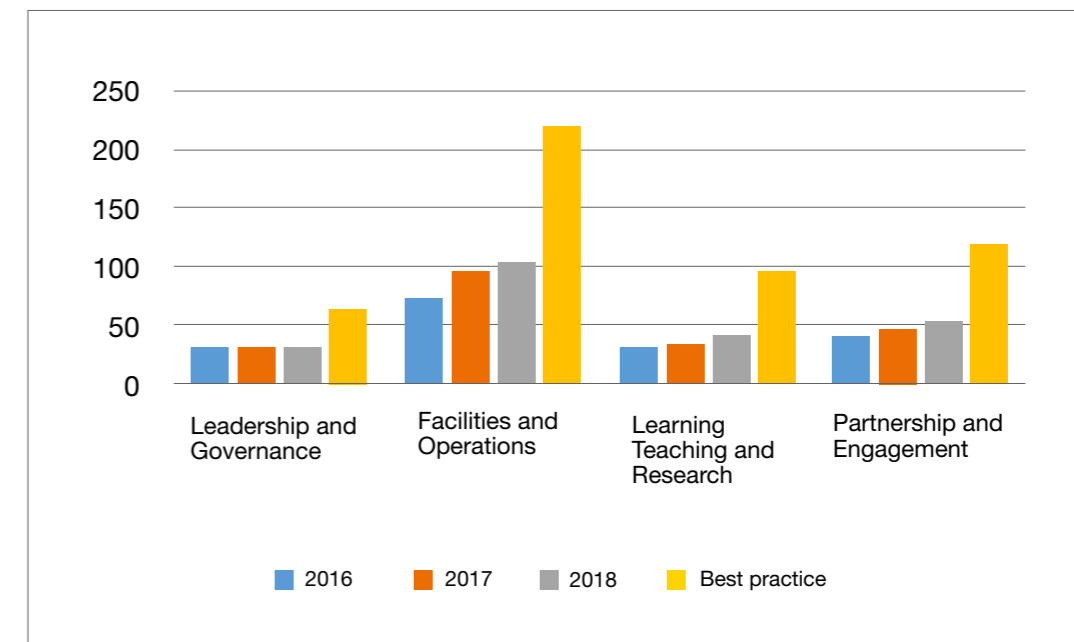
Progress towards best practice continued across the year with LiFE workshops engaging with approximately 164 stakeholders.

Reviews revealed the same frameworks as 2017 performing well, exceeding the five per cent key performance indicator across 2018 in their progress towards best practice, including:

- biodiversity
- learning and teaching
- procurement and supplier engagement
- resource efficiency and waste

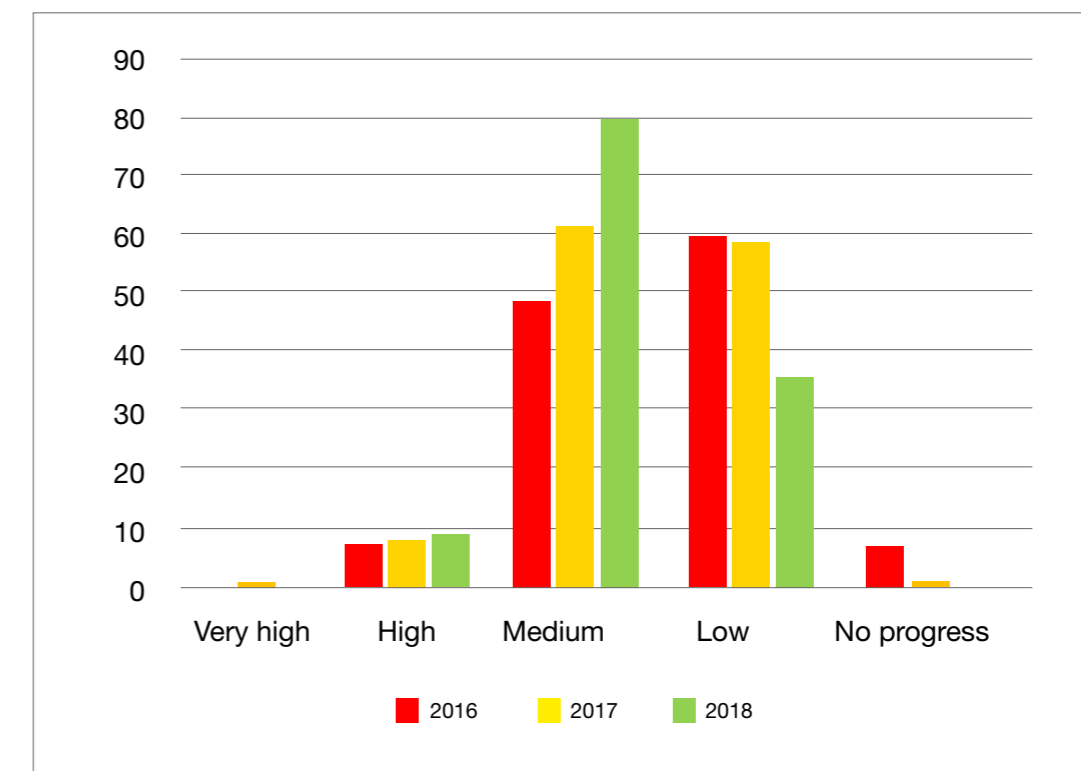
Charles Sturt University's progress towards best practice across the LiFE priority areas

Overview



The graph above illustrates our progress towards best practice across four priority areas since baselines were determined in 2016. Gradual increases are seen in the three priority areas with Leadership and Governance remaining the same.

Total LiFE ratings



The above graph shows the movement in ratings across the past two years showing an upward trend. Notably, there has been an absence of 'no progress' in 2018, an increase in 'medium' ratings and a decline in 'low' ratings.



LEADERSHIP AND GOVERNANCE

LIFE TOWARDS BEST PRACTICE

The Leadership framework was reviewed in September 2018. The Vice-Chancellor's Leadership Team gathered in Wagga Wagga to focus on sustainability at the LiFE Leadership workshop. Eleven participants reviewed the Leadership plan's benchmark ratings. This was the first LiFE check-in activity since March 2017.



LiFE Leadership workshop participants pictured back row from left: Paul Dowler, Robyn McGuiggan, Jenny Roberts, John Germov, Catherine Gordon, Stephen Butt, Andrew Vann, Heather Cavanagh and Wayne Millar. Front row from left: David Bedwell and Adam Browne.

LIFE STEERING COMMITTEE

The LiFE Steering Committee was established in early 2018 to oversee progress towards stated LiFE outcomes and to support adequate participation by key representatives from across the university. The committee is made up of 18 diverse stakeholders.

The committee's purpose is to enable Charles Sturt University to meet the five per cent annual improvement in LiFE ratings across the 16 frameworks. The Steering Committee supports the following LiFE outcomes:

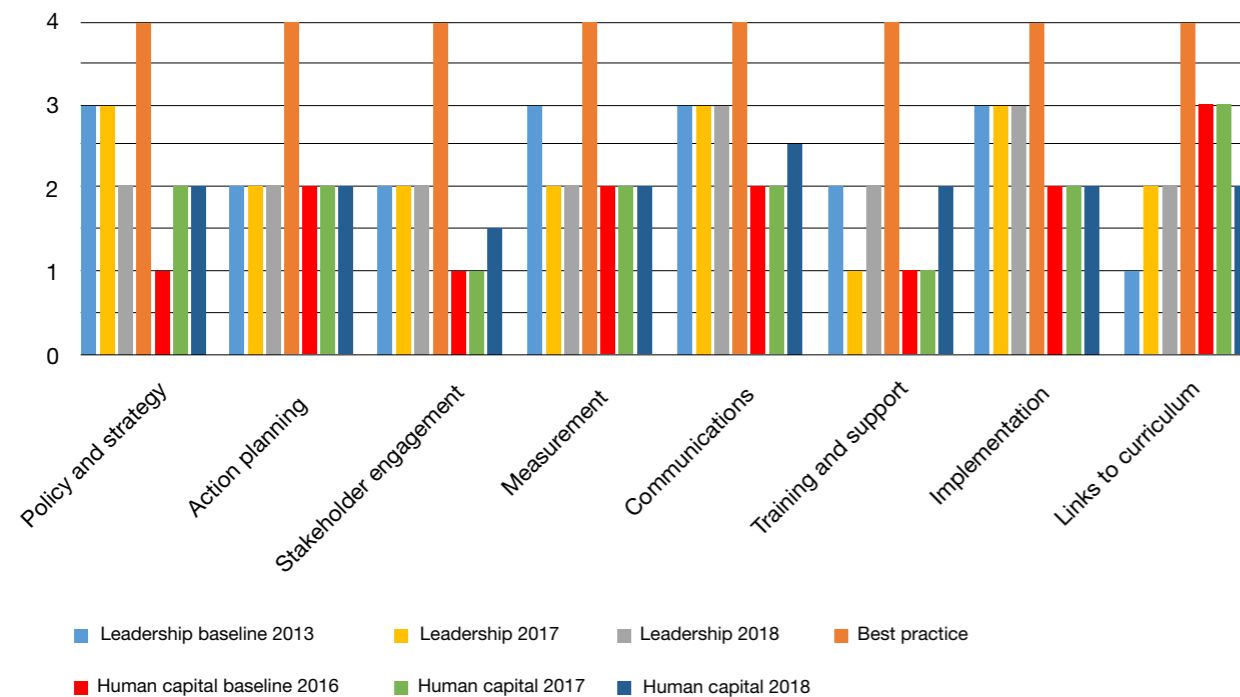
- a.** improved literacy in sustainability principles and practices among Charles Sturt University graduates
- b.** improved cooperation with, and visibility to, our communities in the actions we take
- c.** reduced environmental footprint
- d.** improved cross-organisational communication and reduced duplication of effort associated with progressing common goals

- e.** improved knowledge, attitudes, skills and aspirations around sustainability, leading to behaviour change in students and staff.
- f.** new knowledge that addresses local and global sustainability challenges while focussing on Charles Sturt's research strengths.

The committee also provides organisational direction to Campus Environmental Committees, helping these campus-based groups support the LiFE program in an effective manner. These committees are also encouraged to provide feedback.

- Key achievements in 2018 include:
- Endorsement of the Sustainability Statement
 - LiFE Implementation Plan update
 - Endorsement of the new Sustainability@CSU ELMO module to be made compulsory for all new staff from December 2018.

BASELINE RATINGS



SDG ALIGNMENT



RECOGNITION

GREEN GLOBE YOUNG SUSTAINABILITY CHAMPION AWARD

This award recognises a young person who has developed practical sustainable solutions and has helped a community to improve its environmental issues. It is given to someone who has the potential to be a future environmental leader. The 2018 Green Globe Award for Climate Wise Agriculture was awarded to Anika Molesworth. Anika, 30, who completed her undergraduate studies at Charles Sturt University, comes from a farming family in NSW, giving her firsthand knowledge of adversity for farmers, and the need for agricultural sustainability.

After seeing her family's sheep farm struggle through a decade-long drought, she focused on her education and began a career building resilience in fragile farming systems. She now works to promote and advocate for sustainable agriculture and vibrant rural communities.

International challenges are on the agenda; she spends some of her time in Southeast Asian rice paddies researching agricultural development. Anika is a passionate advocate for sustainable farming, environmental conservation and climate change action. She helped found Farmers for Climate Action, and connects land managers to researchers through her platform Climate Wise Agriculture, helping build resilience into farming communities.

Anika is also keenly interested in the conservation of natural and cultural heritage and manages the International National Trusts Organisation's Sustainable Farms program. She has received many awards including the 2015 Young Farmer of the Year award, was a finalist in the 2017 NSW Young Australian of the Year award, and most recently the NSW Young Achiever Award for Environment and Sustainability. Anika's leadership, communication skills and commitment to taking information out of lofty institutions to share where it's needed is highly commendable. Congratulations again Anika, we are very proud of you.



Anika Molesworth, recipient of the Green Globe Young Sustainability Champion Award.

NEW STAFF TRAINING MODULE 'SUSTAINABILITY@CSU'

Charles Sturt University is committed to embedding best practice sustainability into every area of our business. This is demonstrated by the production of the CSU Sustainability Staff Training Module in 2018 by CSU Green and Human Resources staff. This new ELMO module Sustainability@CSU has been designed to increase staff awareness and understanding of Charles Sturt University sustainability, both at an individual and at an organisational level.

This module is now compulsory for all new staff joining our organisation. Completion will be at the discretion of managers, however the Chief Financial Officer and Chair of the LiFE Steering Committee Paul Dowler, encourages all staff to undertake this learning.

The module gives learners an overview of how Charles Sturt University is working to be more sustainable and also suggests what you can do on a personal and professional basis. It outlines what activities you may like to become involved in across all campuses.



Ed Maher from Charles Sturt University, recipient of the Green Globe Sustainability Champion Award.

EXTERNAL AND INTERNAL RECOGNITION

Charles Sturt University was again recognised as leaders in the sustainability space gaining internal and external recognition at the national, state and local levels.

In August our CSU Green Manager Ed Maher received statewide external recognition winning the Green Globe Sustainability Champion Award for NSW. Ed was instrumental in leading Charles Sturt to become the first #carbon neutral university in Australia. Ed has taken an active leadership role in sustainability activities at the local (5 years), regional (8 years) and national levels (4 years) through both his role at Charles Sturt University (CSU) as CSU Green Manager and across local and national organisations such as Landcare and as a board member of Australasian Campuses Towards Sustainability (ACTS).

The other significant achievement in 2018 was for the CSUWarOnWaste campaign which gained national and internal recognition. In May, Charles Sturt University CSU won the national award from the Tertiary Access Group (TAG) for 'Best Commercial Retail, Campaign'.

Leadership and governance



Michelle Wilkinson from Charles Sturt University, presenting at the ACTS conference.

AUSTRALIAN CAMPUSES TOWARDS SUSTAINABILITY CONFERENCE

CSU Green participated in the annual ACTS, conference, themed "Power of Partnerships", which was hosted by the University of Adelaide in early November. Michelle Wilkinson, Kym Witney-Soanes and Ed Maher were involved in two presentations about LiFE, nationally and internationally, and the CSU Sustainability Advisor initiative.

For the second year in a row Ed co-hosted the awards dinner event in his role as Vice-President of ACTS with President Leanne Denby from Macquarie University. One of the many highlights was meeting Meghan Zahnister, Executive Director for the Association for the Advancement of Sustainability in Higher Education (AASHE) from the United States, and learning about their Sustainability Tracking, Assessment and Rating System (STARS).

STARS is a self-reporting framework for higher institutions to measure their sustainability performance.



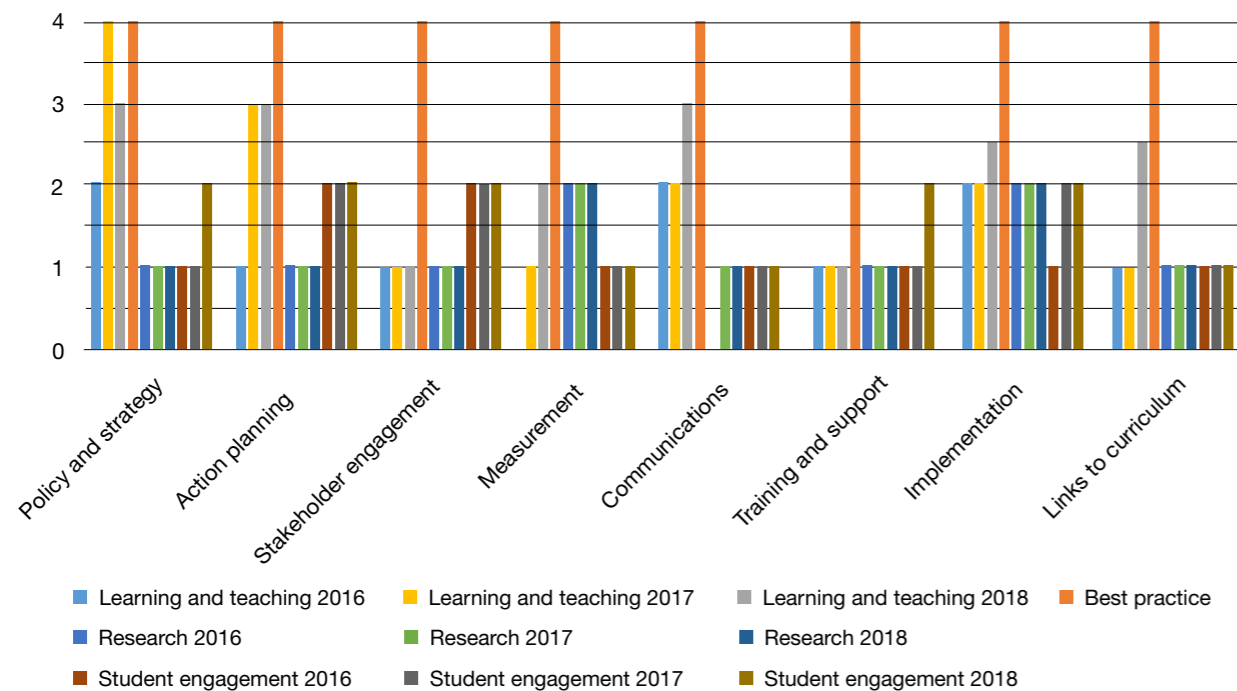
LEARNING, TEACHING AND RESEARCH

LIFE TOWARDS BEST PRACTICE

The three frameworks in the Learning, Teaching and Research priority area were reviewed twice in 2018. The graph below illustrates the 2016 baseline ratings and the 2017 and 2018 progress towards best practice for the relevant frameworks.



BASELINE RATINGS



GRADUATE LEARNING OUTCOMES

by Jonathon Howard

All Australian Qualifications Framework level 7 courses and professional entry courses of more than one year at Charles Sturt University are busy aligning themselves to our set of Graduate Attributes.

One of these attributes is ‘Sustainable Practices’. To make this transition easier for course teams and subject convenors, the Learning Academy and CSU Green have teamed up to create an online “sustainable practices hub”.

The hub is a ‘one-stop shop’ on how to teach sustainable practices. It draws on the best international research on how to plan for, and contextualise, sustainable practices.

It also provides access to various exchanges throughout the world where academics from other universities share specific examples and ideas.

The hub is a unique resource that other universities across the Australia have begun to copy. In the coming months the hub will be accompanied with another more operationally focused hub detailing subjects, lesson plans, and assessments for each degree at our university.

SDG ALIGNMENT



LINKS TO CURRICULUM

Giselle Crowther was a third year animation student who worked with CSU Green to promote biodiversity by animating the Flagship Species Series. This was an assessable task with lecturer Andrew Hagan in the School of Communication and Creative Industries, Wagga Wagga.



Giselle's animation of the Flagship Series as part of her animation assessment.

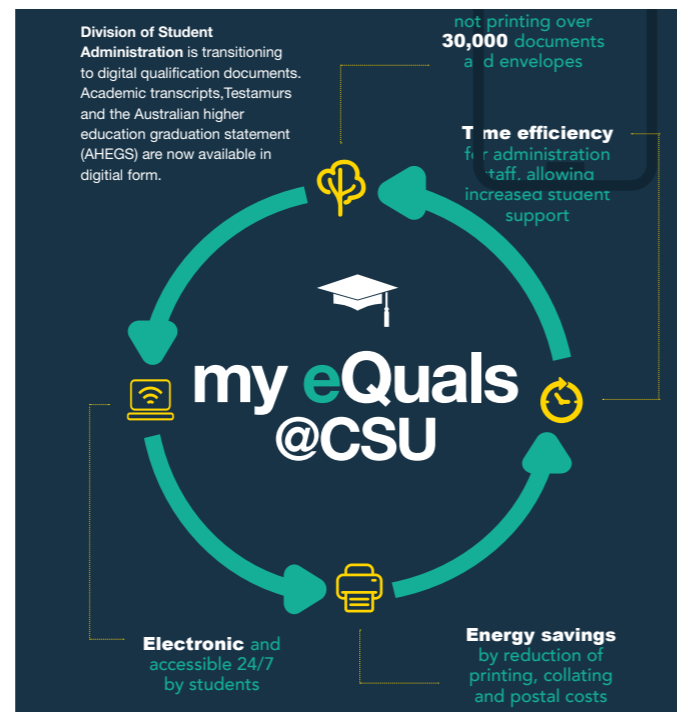


Giselle Crowther, third year animation student being presented with her certificate.

 Watch video

CHARLES STURT UNIVERSITY SIGNS UP TO MY EQUALS

Charles Sturt University students are now able to obtain their academic transcripts, testamurs and the Australian Higher Education Graduation Statement AHEGS electronically thanks to the My eEquals system. Electronically available documents provide greater security for students and employers, and have the added bonus of saving over 30,000 sheets of paper and envelopes for each transcript release. That equates to saving over 10 mature trees!



STORY OF MOST SIGNIFICANT CHANGE

Charles Sturt University's value: impactful

MBA degree student numbers continue to increase for the 'Managing for Sustainability' subject.

By Simon Wright
Lecturer School of Management and Marketing

The integration of sustainability into the curriculum of the Masters of Business Administration (MBA) postgraduate degree through the introduction of MGT583 Managing for Sustainability has been a significant change. It is changing the discourse around the business of doing good and being a positive source of change. It is a critical part of teaching MBA students who are usually 25-45 year olds in mid-career approaching a career crossroads. Many go into senior roles and are key influencers who we want to value sustainability. We help them understand why it is important and how it will shape how we live over the next 25 to 30 years. They learn about the need for behavioural change and new business models in the way that we manage supply chain, customers, employees, environmental and social impact, ethics and diversity. Students leave the MBA with tools to integrate sustainability into the way they work. They are having a positive impact in the business community. We tell students stories about what has already been done and what has been achieved by embedding sustainability into core business strategy.

Before 2016 there were no specialist sustainability subjects for post graduate business students at Charles Sturt. There were smatterings of topics across the curriculum like ethics, triple bottom line accounting, and some Indigenous content, but very little social or environmental sustainability content. I pulled together an offering tailored to people with an interest in taking a sustainability leadership role in an organisation, company or NGO, covering sustainability in the broadest sense. Students learn what sustainability means for organisations, how it relates within companies and organisations and how it brings values to a business. We give our students tools to plan and integrate sustainability into organisational strategies. Our content is overflowing with contemporary Australian case studies.

We use an Australian textbook to ensure our content is locally relevant and practical. It is designed to engage students and provides some unorthodox assessment tasks including stakeholder mapping, learning journals. The course culminates with students pitching a new sustainability strategy to a company board.

We started with 16 students in 2015, and now in 2018 we have up to 70 registered students, which indicates the demand and levels of interest and curiosity around sustainability.

My main goal is to open their eyes to a different approach to business by showing cases where sustainability really works well. I get extremely positive feedback from students, many of whom have not given sustainability any thoughts beforehand and now want to do more. Some want to become Sustainability Managers. I see some real awakenings. I do see some cynicism too, but the vast majority of students think proactively about how sustainability can support, influence and shape their business. They see how they can build a platform for behaviour change and see shifts in mindsets.

This is a significant change, because the global financial crisis resulted in management education fostering a culture of opportunism. It is important that management educators help shape and rebuild a healthy business culture. I hope I am making a small contribution to that approach through integrating sustainability into the curriculum of Charles Sturt University's Master of Business Administration (MBA).

Before 2016 there were no specialist sustainability subjects for postgraduate business students at Charles Sturt University



**PROJECT LIFEBOAT:
A CONSERVATION PLAN FOR
DECLINING TURTLE POPULATIONS**

James Van Dyke

In 2017-18, using equipment funded by CSU Green, Project Lifeboat caught over 100 individual turtles in the David Mitchell Wetlands at Charles Sturt University's Albury campus. The majority of these were eastern long-necked turtles (*Chelodina longicollis*). We also caught a single short-necked turtle (*Emydura macquarii*) and a broad-shelled turtles (*Chelodina expansa*), which were most likely released pets.

This has started what is planned to be a long-term mark-recapture project aimed at analysing the population dynamics of our turtles on-campus, with student involvement from BIO112 (Principles of Ecology). The *C. longicollis* population interestingly includes a range of body sizes, from juveniles to large adults, and so may be healthier than other turtle populations in the region, in comparison with past work. At those other sites, turtle populations are dominated by old adults. Researchers think this is caused by exceptionally high rates of nest destruction (>99%) by invasive red foxes. It is possible that the Charles Sturt University population is avoiding high fox predation, which may indeed make it an ideal site for a future projects.

Project Lifeboat also collaborated with Wonga Wetlands AlburyCity, North East Water, and Wodonga City Council to conduct turtle population studies in 2018 –19. These studies will identify additional sites to be used in the Lifeboat headstarting project (sites where nests can be protected from predating foxes), both as potential source populations and as potential study sites for turtle release.

The results will also help coordinate the placement of the educational signage for TurtleSAT funded by the grant from CSU Green. The collaborations were highlighted in news events and a public talk event at Wonga Wetlands on 11 May 2018.



Turtles captured in the David Mitchell Wetlands.

More information

**COMPACT CITIES OR SPRAWLING
SUBURBS?**

Which is best to maximise species diversity?

Institute for Land, Water and Society (ILWS) researcher Dale Nimmo was supported by a CSU Green 2017 Research Grant to investigate urbanisation on native species diversity.

This research aimed to compare the approach of 'land sparing' versus 'land sharing' or larger blocks of urban sprawl versus higher density development where larger areas were segregated for landscape uses.

Urban areas currently house half of the world's human population and by 2050 are predicted to be home to an additional 2.5 billion people (United Nations, 2014). This growth will be accompanied by expanding urban boundaries, new megacities and increasing environmental pressures on surrounding peri-urban regions. Consequently, the capacity of urban and peri-urban areas to sustain native biota, and the factors that enhance nature conservation in these areas, are the focus of growing scientific attention.

The results support a growing body of research emphasising the importance of land sparing in urban areas for many native species of birds, bats, small mammals and ecosystem services. Although each of these studies support land sparing, it is important to note that this does not mean that "spared" landscapes are free of humans, but merely that they are free of urban infrastructure and are used often by people, primarily for recreation. Thus, sparing land for conservation does not mean severing the link between people and nature in urban areas. The results highlight the need for large tracts of native vegetation among or adjacent to urban areas if we aspire to sustain biodiversity in cities.

The importance of such natural areas will only increase as urban population density grows.

**SUPPORTING THE SUSTAINABLE
DEVELOPMENT GOALS
THROUGH RESEARCH**

Charles Sturt University researchers working as part of the Institute of Land, Water and Society (ILWS) have taken a step forward in determining how their research expertise can directly support the global Sustainable Development Goals (SDGs). A workshop hosted by Charles Sturt University at Albury-Wodonga in October featured involvement from Patricia Garcia AO, National SDG and Peace Program Manager at the United Nations Association of Australia.

Key topics tabled at the workshop included:

- The need to raise general awareness of the existence and importance of the SDGs throughout the Australian community and the role that Charles Sturt University can play to help with this.
- Opportunities to deliberately link the significant body of relevant research output already being produced by ILWS with the SDGs.
- Universities have the capacity to support the SDGs through both modelling good practice in the management of their own facilities and by driving improvements in the wider community via research outcomes and empowered graduates.
- More can be achieved through collaboration with like-minded organisations through networks such as the Sustainable Solutions Development Network. The workshop was led by Professor Manohar Pawar, of the ILWS.



Researcher Dr Dale Nimmo from the Institute for Land, Water and Society (ILWS).

SDG ALIGNMENT

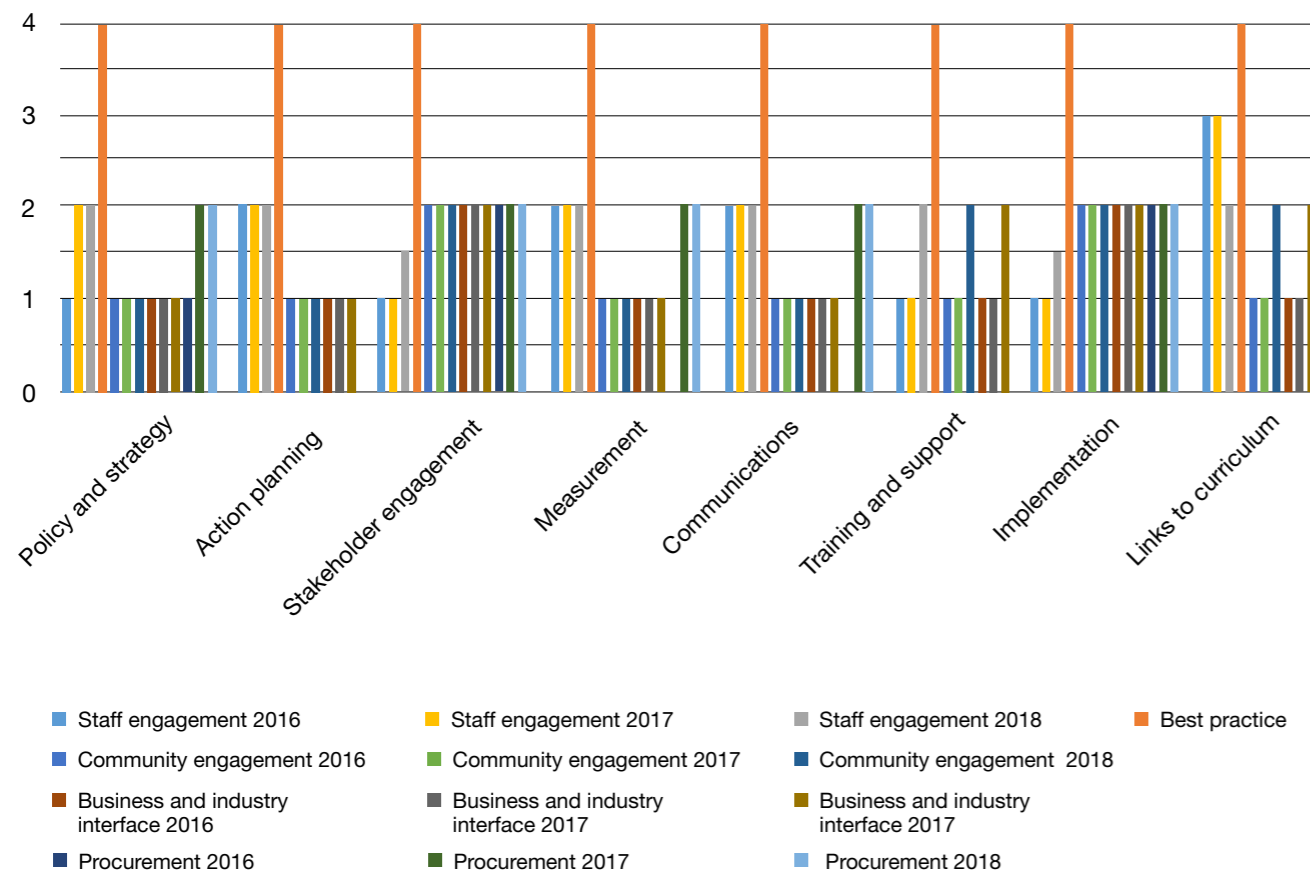


SDG ALIGNMENT



PARTNERSHIP AND ENGAGEMENT

BASELINE RATINGS



Students participating in the CSU Green bus share program.

LIFE TOWARDS BEST PRACTICE

The graph on page 22, shows Charles Sturt University's progress towards best practice under the Partnership and Engagement priority area. You can see progress across the eight activity areas from the baseline ratings in 2016 to current ratings which improved by 11 per cent across 2018.

The best performing framework within this area was Community Engagement, Business and Industry Interface with a seven per cent improvement across 2018. The next best performer was Human Capital and Staff Engagement. This was predominantly due to progress on the development of the 'Sustainability@CSU' ELMO staff training module. Procurement and Supplier Engagement had the least progress in implementing actions in 2018.

BUS SHARE SUBSIDY TRAVELLING WELL IN ITS SECOND YEAR

Students enthusiastically jumped aboard CSU Green subsidised share buses throughout 2018 to transport their club groups to balls, commencement events and team building weekends. Fifty per cent of the cost of hiring buses for eight events like inter-campus physio games was reimbursed to provide Aggies Netball Club, Physiotherapy Student Association, Wagga Agricultural Club, Port Macquarie Physio Club and various campus Student Representative Councils a safe, social and sustainable transport option.

"On behalf of the O'Physio club of 2018, I wanted to thank you for your financial assistance in regard to the bus hire for our event. Everyone had a great time and is grateful for the contribution that CSU Green made." Imogen Willson.

ENGAGEMENT



Working hard! The 2018 Sustainability Advisors with CSU Green Sustainability Officer Alesha Elbourne.

STUDENT SUSTAINABILITY ADVISORS KICKING GOALS IN THE PROGRAM'S SECOND YEAR

Now in its second year, the residential Sustainability Advisor program ran successfully on five campuses in 2018.

This program is a partnership between CSU Green and Residence Life that acknowledges peer-to-peer learning as a great way of embedding sustainable behaviours throughout Charles Sturt University student residences.

This year the program engaged over 2000 students across the university at Albury-Wodonga, Bathurst, Port Macquarie, Orange and Wagga Wagga.

Our sustainability advisors are part of the wider student resident advisor team, which is an acknowledgement of the importance of sustainability across residences. This year saw many behaviours start and become embedded with the resident advisors as well as the student residents.

MOUNTAIN BIKE TRACK OPENS AT ALBURY-WODONGA

The university has built a 1.7 kilometre cross-country mountain bike track on the campus, and includes a 500 metre-long skills loop. The new facilities will be used by CSU students, particularly those attracted to the outdoor education, environmental science and health science courses offered at Charles Sturt University in Albury-Wodonga.

Charles Sturt students Hannah Gubb and Chloe Grey came up with the idea as part of their outdoor education course and were supported through CSU Green and the Division of Student Services to obtain funding to design and develop the track. The facility is also open to the public, including local primary and public schools.



Above: On your bike! The newly built mountain track at Albury-Wodonga.

EARTH HOUR SHINES A LIGHT ON SUSTAINABILITY

The lights were off and the fun began at Earth Hour celebrations across Charles Sturt University campuses this year, including an “Unearthed” musical event at the Wagga campus. Sophie Kingston (Sustainability Advisor) partnered the Residence Life team to host student musicians, a sustainability themed “Kahoot” quiz and barbecue. Over 100 music lovers enjoyed an “Unearthed and Unplugged” event under the stars.

Earth Hour encourages everyone to switch off the lights for an hour every March and do something to raise awareness of energy use, climate change and sustainability.



Sustainability Advisor Sophie Kingston led the Earth Hour event at Charles Sturt University at Wagga Wagga.



Musicians and all things fun at the Earth Hour event at Charles Sturt University's Wagga Wagga.

CELEBRATING KALEIDOSCOPE DAY ALBURY-WODONGA

This three-day event focused on cultural awareness (orange), sustainability (green) and diversity and equity (purple).

The colour green was celebrated in The Gums Café on the 16 May. CSU Green joined student Sustainability Advisor Josh Bruni and Division of Student Services (DSS) staff and community partners Halve Waste. People brought their own mugs for green soup, created a rice mandala and chatted about all things green in partnership with DSS.



Students interact with the gosechase app during Kaleidoscope day.



ENGAGEMENT



Foundation Day turns CSU Green red for a day

CSU Green turned “red” for 2018 Foundation Day celebrations at the Wagga campus Hub to promote the newly released 2017 CSU Sustainability Scorecard. A short carbon neutrality quiz engaged staff and students to find out more about Charles Sturt University’s carbon neutrality journey.

CSU Green staff turn red for Foundation Day celebrations.



Volunteers working hard at planting trees for the Sloanes Froglet habitat.



Success! Volunteers including, staff, student and kids.

ALBURY-WODONGA PLANTING DAY INCREASES HABITAT FOR OUR FLAGSHIP SPECIES

As part of the Foundation Day celebrations, volunteers at Charles Sturt University’s Albury-Wodonga campus enhanced the biodiversity zone for their flagship species Sloanes Froglet by planting native grasses and shrubs – a favoured habitat of the froglet. Charles Sturt University lecturer Dr Geoff Heard spoke to over 60 students, staff and community volunteers, explaining why the froglet prefers seasonal wetlands and low grassy areas without shade. The group was also treated to fantastic rendition of a Sloanes call.

Participants in workplace programs through Job Centre Australia were also given firsthand experience of the role of university ground staff in maintaining these important biodiversity areas. Several different frog calls (including Sloanes) were heard during the event, proof that the re-establishment of these zones is attracting wildlife already. To hear different frog calls in your area, check out the Frog ID app on your device!

CSU TEAM ACHIEVES BIOQUEST SUCCESS!

A team of scientists from the Charles Sturt University’s Institute for Land, Water and Society (ILWS) won a category award after competing in the QuestaGame University BioQuest.

Team members included Associate Professor Dale Nimmo, Dr James Turner, Dr James Van Dyke, Dr Maggie Watson, Dr Damian Michael, ILWS PhD scholarship student Mr Harry Moore, and Ms Karen Retra. People from all over the world take part in the competition, which is an app-based game that lets users win points by spotting, photographing and identifying wildlife. Information from sightings is collected and made publicly available through an online database such as Atlas of Living Australia.

Charles Sturt University ecophysiologicalist Dr James Turner said, ‘Universities are encouraged to enter teams in the month-long challenge and document as much life as possible’. By submitting sightings, money is raised for participating conservation partners, and Charles Sturt University has finished in the top ten throughout the competition in several categories including: Top Spotters – Teams, Top Spotters – Universities, Correct Identifications – Top Teams and Top Identifiers. It paid off for the team, taking home the ‘Most Valuable Team Ribbon’, with an average score of 12,498.

It’s awarded to the university team with the highest average score per team member from both submitted sightings and correct identifications. This is the first time Charles Sturt University has taken part in the competition.

‘After two weeks we had found more than 70 different species of birds, mammals, reptiles, invertebrates and plants. The majority were on campus in the wetland and bushland surrounding Charles Sturt University in Albury-Wodonga’, Dr Turner said.

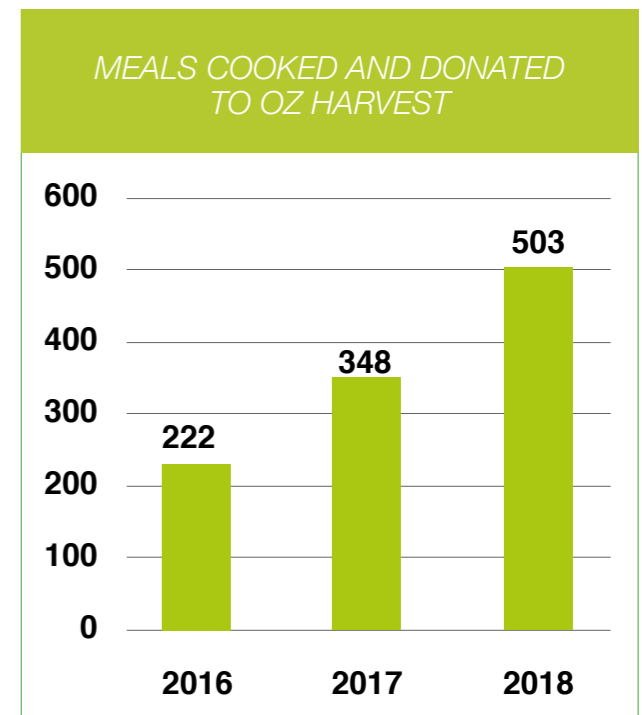


Winners! The Institute for Land, Water and Society (ILWS) team.

CHEERS GETS COOKING ONCE AGAIN FOR THE MOVE OUT COOK-UP

Into its third year the Move Out Cook-up once again proved a terrific success with 503 meals being donated to Oz Harvest this year thanks to CHEERS staff at Wagga, turning unwanted food items donated by students into meal masterpieces! This is part of the “Move Out” program in residences where students are encouraged to sort their unwanted items as they move out to reduce waste going to landfill, recycle more and make use of food that would otherwise end up in the bin. CHEERS at CSU Wagga campus has now finished with the “move out cook up”.

These meals will go to hundreds of local Riverina people who can’t afford to eat. It takes effort from a lot of people to do this each year, but it all starts with your generosity, so.....CHEERS!



COMMUNITY ENGAGEMENT

CHARLES STURT UNIVERSITY STARGAZES ACROSS CAMPUSES

Charles Sturt University at Port Macquarie, Bathurst, Wagga Wagga and Wangaratta hosted stargazing events as part of the ABC's Stargazing Live broadcast world record attempt in April.

The Port Macquarie Astronomical Association gave a presentation to over 160 gathered students, staff and community members on "the secrets of the universe" before participants moved down to the stargazing area and LED TV screening Stargazing Live to set up their telescopes. The 10 minute stargazing moon observation took place cued by the ABC and student volunteers, with Charles Sturt University's Future Moves doing a great job in guiding people to the area and timekeeping.

A 12" diameter telescope was set up to show people the sky and, after the main event, a few people stayed to use the Charles Sturt University telescopes (8" Dobsonians) provided by Future Moves to observe the moon, Jupiter and Saturn. Many people had never looked through a telescope before so it was a great chance to engage the community.

The Bathurst event was held at the iconic Abercrombie House hosted by with Charles Sturt University and the Bathurst Observatory Research Facility. Around 70 stargazers utilised the telescopes and binoculars to participate in the world record attempt. Local astronomers were also present and the event had a real community feel, with Bathurst Observatory Research

Facility staff on hand to answer any questions. Participants were able to observe the moon, Jupiter and different types of star clusters within the Milky Way and listen to Ray Pickard from the Bathurst Observatory Research Facility who explained constellation mythology.

Our campus enjoyed lovely clear skies the entire evening. Participants arrived from all over the local area, including a local Girl Guides Australia group, families with children, as well as university staff and students.

The ABC Stargazing Live television program was live-streamed on the large outdoor projector leading up to the world record attempt, which saw all participants gaze at the moon for a 10 minute time period through either a telescope or binoculars. A total of 75 participants were officially counted as our contribution. Members of the Faculty of Science were present to describe the night sky and set telescopes to view Jupiter, the moon, and later in the evening, Saturn.

A huge thanks to all the volunteers and officials for making these fantastic events possible.



Stargazing in at Charles Sturt University in Wagga Wagga.



Participants enjoying the stargazing (above) and one of the captured views (right).



Stargazing in Bathurst.



Participants in at Charles Sturt University in Port Macquarie.

PROCUREMENT AND SUPPLIER ENGAGEMENT

SUSTAINABLE PROCUREMENT UNDERPINNED THROUGH NEW POLICY

The introduction of a new procurement policy has formally enacted a requirement for social and environmental considerations to be taken into account as part of all of Charles Sturt University's purchasing decisions. Specifically, the new policy contains two important concepts.

Corporate Social Responsibility

This includes procurement decisions made on the basis of social issues covering the social impacts of products and services, including:

- health
- safety
- human rights
- ethical production processes
- social justice
- fair trade
- diversity
- access
- purchasing locally and domestically made products.

Environmentally Responsible Procurement

This includes procurement decisions made on the basis of environmental issues covering the environmental impacts of products and services from cradle to grave, including:

- reducing the amount of products purchased;
- minimising energy, water and materials;
- recycled, recyclable, biodegradable and reusable components
- packaging, maintenance, waste, emissions, chemicals and transportation
- environmentally responsible disposal.



SDG ALIGNMENT



RIDE TO UNI DAY

Each of the larger campuses participated in "Ride to Uni" day through NSW Bike Week (September 22–30, 2018). Students and staff met at designated central locations for a guided ride to uni as a way of encouraging people who may not ride to work or uni often to give it a go more frequently. Free breakfasts or coffees were enjoyed as a reward with support from the CHEERS catering staff.

Over 100 staff and students participated across the campuses. A photography competition was also held and included participation from online students showing where they like to ride, right across Australia.

A big thanks to Charles Sturt University staff and students who supported and organised #NSWbikeweekCSUactivities



Ride to Uni Wagga Wagga crew enjoying a barbecue breakfast.



Ride to Uni Port Macquarie, enjoying the views!



Charles Sturt University Bike Week Photo Comp winner, Emma Croser (Senior Lecturer, School of Animal and Veterinary Sciences) for her winning entry. Traffic Jam – Wagga Wagga Style.

Grants



Each year Charles Sturt University operates a contestable Sustainability Grant program which provides staff and students with access to funding to support valuable projects that will progress the university's sustainability goals. The following is a summary of the projects that were awarded funding in 2018.

Successful project grants

Description	Lead	Funding
Purchase of Winery Pallet Sheets	Amanda Moseley	\$5000
Albury-Wodonga Campus Historical Photos	Wayne Doubleday	\$5000
Port Macquarie Sustainability Showcase	Nigel Urwin	\$5100
360° Immersive Biodiversity Project	Andrew Hagan	\$14,784
	TOTAL	\$29,884

Successful research grants

Oh deer: exploring the narratives of human-deer conflict in North Eastern Victoria	Jennifer Bond	\$9953
Artificial tree hollows—thinking outside the box	David Watson	\$9856
A study of the biodiversity and abundance of free-living bioluminescent bacteria in coastal waters around Camden Haven and the Camden Haven river.	Nigel Urwin	\$8300
How does behaviour influence the survival and fitness of Murray Cod in the Murray-Darling river system?	Raf Freire	\$7320
	TOTAL	\$35,429

Successful grassroots grants

[Read more](#)

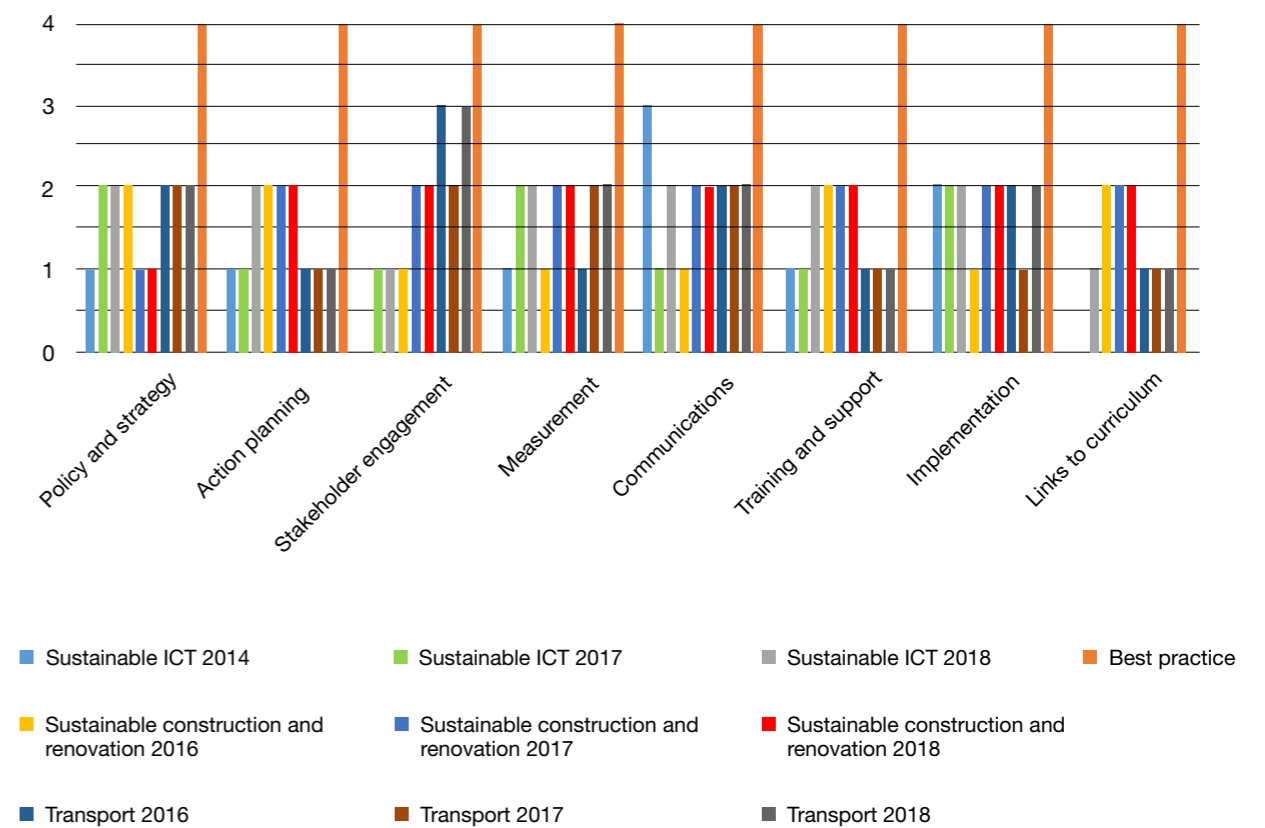
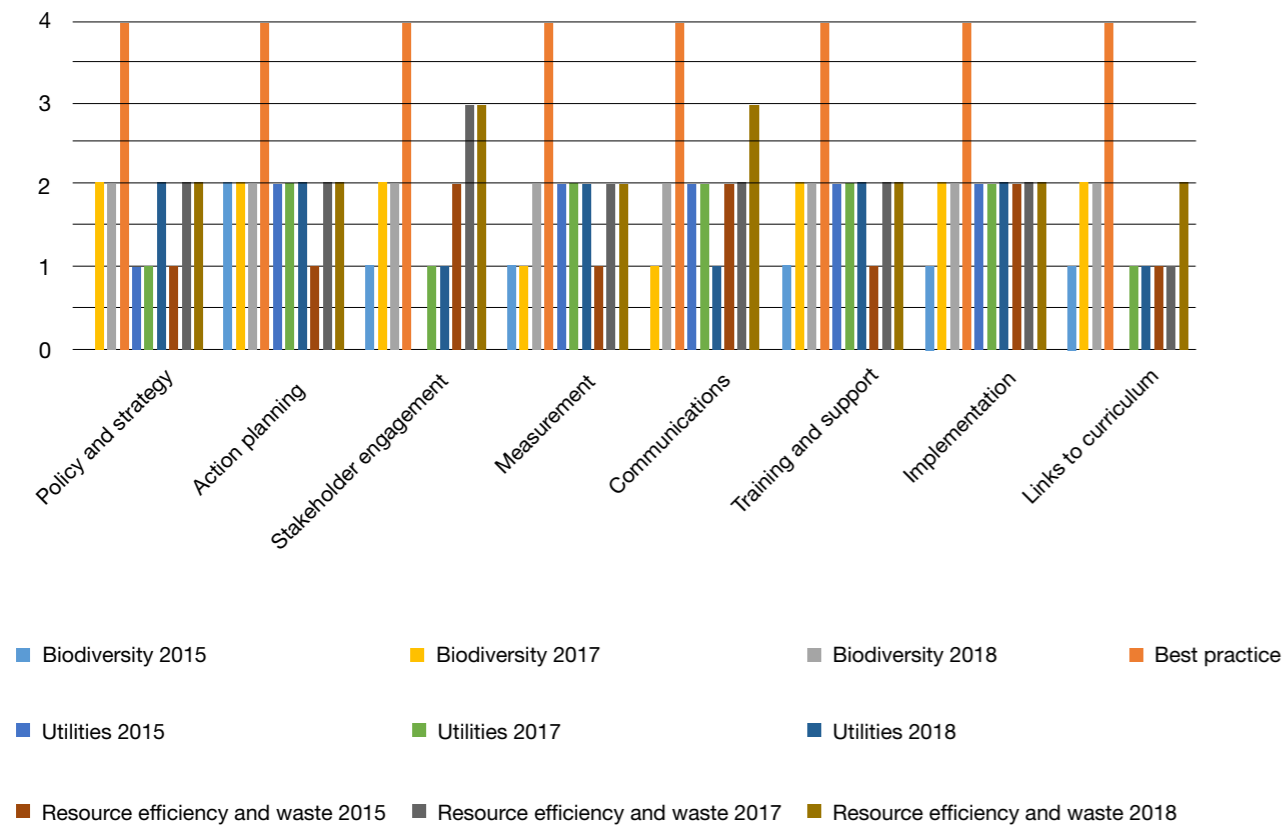
Description	Campus	Funding
Coles Reusable Bag Racks	Port Macquarie	\$444
Boomerang Bags	Wagga Wagga	\$1,000
David Mitchell Wetlands Video	Albury-Wodonga	\$800
Stargazing live	Port Macquarie	\$1000
BioQuest	Albury-Wodonga	\$900
Campus Gardens and Organic Waste	Wagga Wagga	\$1000
PM Return and Earn	Port Macquarie	\$720
Trialing battery operated garden tools	Bathurst	\$868
Dubbo Gardens	Dubbo	\$1000
	TOTAL	\$7,832



FACILITIES AND OPERATIONS



BASELINE RATINGS





ENERGY

CLEAN ENERGY STRATEGY

Our focus on the 2030 Clean Energy Strategy Plan has intensified in 2018. With our target of 100 per cent clean energy we will look to replace all stationary energy with a mix of onsite electricity from solar and offsite electricity via a power purchase agreement or equivalent supply arrangement from a green energy project or retailer.

Energy for vehicles is expected to be a mix of electricity and possibly other fuels such as hydrogen, though some risks exist that internal combustion engines remain, particularly in light to heavy trucks. We are seeing a significant increase in regional renewable projects but current pricing is significantly ahead of where we'd expect 2021 pricing. Given there are significant costs and technical challenges to replace gas-fired plant and equipment, we've begun to look at alternatives early in the plan.

Our current solar program will exhaust the remaining solar suitable rooftops, so consideration for ground mounted solar, geothermal and air sourced heat pumps will be made. 2018 saw planning for regular lighting upgrades and an annual continuing focus on

Solar Stage 2

Solar Stage 2 commenced in 2018 and is progressing. Existing installations include:

- 40 kW at our Bathurst campus.
- 156 kW at our Port Macquarie campus.
- 1,774 kW at our Wagga Wagga campus.

Proposed installations for Stage 2

- 448 kW at Albury-Wodonga.
- Bathurst campus will increase from 40 kW to 1344 kW.
- 99 kW at Dubbo campus.
- 700 kW at Orange campus.

Over 2500 kW of new renewable energy across Albury-Wodonga, Bathurst, Dubbo and Orange campuses will be installed. The installation will add to the existing 1700kW solar energy generation at Charles Sturt University in Wagga Wagga; one of Australia's largest solar rooftop projects on a single site. Engineering student Bruce Barkworth worked on the project implementation as part of his work placement.



CO2 Australia's Brad Holt with scholarship recipient Emily Jones.

CO2 AUSTRALIA SCHOLARSHIP

This is the first year that CO2 Australia has offered this scholarship, which aims to help Indigenous students create effective pathways between higher education and employment in regional areas. Charles Sturt University Director of Advancement Sarah Ansell also presented a certificate of appreciation to Brad, who graciously accepted it on behalf of CO2 Australia.

'We are pleased to partner with Charles Sturt University to establish this scholarship, as we see it as a way to support prospective students from Indigenous backgrounds to access higher education opportunities and help young people to develop diverse, long-term careers in regional locations' – James Bulinski, Managing Director at CO2 Australia and Charles Sturt University Alumni.

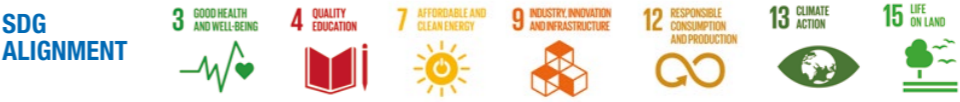


Powering on. Part of the installation in CSU at Charles Sturt University in Dubbo.

LIFE PROGRESS TOWARDS BEST PRACTICE

Check in activities with LIFE champions and stakeholders in the Facilities and Operations priority area were held twice during 2018. Ratings were reviewed at workshops with the wider group of stakeholders. Action plans detailing how Charles Sturt University is progressing towards best practice across the eight activity areas are updated on a six monthly basis with Champions.

Transport was reviewed in March and September face-to-face in Wagga Wagga. Sustainable Information Communications Technology was reviewed in May and in November. The other frameworks were reviewed on the 20 June at a face-to-face multi-frame workshop in Bathurst, reviewing action plans for Biodiversity, Resource Efficiency and Waste, Sustainable Construction and Renovations and the combined Utilities (Energy and Water) frameworks. Check-in teleconferences were held in December. The two graphs below illustrates progress towards best practice for the seven frameworks under the Facilities and Operations Priority area.



Carbon Neutrality

Charles Sturt University has submitted to the Department of the Environment and Energy to maintain its certified carbon neutrality status under the Australian Government's Carbon Neutral program throughout 2018.

This demonstrates the university's ongoing commitment to implement further carbon reduction projects, accurately measure its carbon footprint, purchase and retire high-quality accredited offsets and publically report on these measures. A total of 49,729 tonnes of carbon offsets have been purchased for the purposes of offsetting Charles Sturt University's carbon emissions for the 2018 reporting year. This covers the university's calculated footprint of 49,729 tonnes. This is a significant decrease in emissions for the university due to the Stage 1 solar installation at Wagga Wagga campus. The selected offset portfolio has supported a range of local and internationally-based projects that provide a vast number of social and environment co-benefits. These are outlined below. The installation of Stage 2 solar on four of our campuses will further reduce our energy consumption and enable the purchasing of offsets to be gradually reduced.

Offset portfolio for the 2018 reporting year

- The Rimba Raya Biodiversity Reserve Project, an initiative by InfiniteEARTH, aims to reduce Indonesia's emissions by preserving some 64,000 hectares of tropical peat swamp forest. This area, rich in biodiversity including the endangered Bornean orangutan, was slated by the provincial government to be converted into four palm oil estates.

Located on the southern coast of Borneo in the province of Central Kalimantan, the project is also designed to protect the integrity of the adjacent world-renowned Tanjung Puting National Park, by creating a physical buffer zone on the full extent of the eastern border of the park.

- CO2 Australia: Creating a Better Climate Project (Reforestation). Extensive plantings of native eucalypt tree species have progressively been established by CO2 Australia throughout central New South Wales across the past decade. Plantings include tree belts integrated into existing farming operations and larger consolidated plantings delivering larger scale abatement outcomes. Species have been selected for drought, disease and fire tolerance, with mallee eucalypts favoured for many project locations. For some projects, revenue share arrangements have been negotiated with landholders, so that proceeds from carbon sales flow back to landholders. Revegetation in what are otherwise heavily cleared landscapes delivers a number of biodiversity and environmental co-benefits, as well as helping to promote the uptake of carbon projects and tree planting by local landholders

- Solar Grouped project by ACME Group and CECIC HKE Zhangbei Lvnaobao Wind Power Project. These are utility scale renewable energy projects delivered in India and China respectively which offer carbon emission reductions compared to conventional energy sources derived from fossil fuels.

[Read more](#)

STORY OF MOST SIGNIFICANT CHANGE

CSU value impactful

This story is significant because the campaign is facilitating behaviour change across all CSU campuses.

By Brett Russell
CHEERS Manager, Food & Beverage Services

Charles Sturt University won a national award in May 2018 from the Tertiary Access Group in the 'Best Commercial Retail Campaign' category for our War On Waste campaign.

The university's War on Waste campaign embedded an understanding of sustainable practice within the CHEERS team and across the Charles Sturt community. Its namesake and concept was inspired by the ABC's *War on Waste* program in 2017. Through staff, student and community interest, it led to the development of a partnership between CHEERS and CSU Green. We delivered an effective marketing and financial incentive to reduce waste going to landfill. The campaign's purpose promoted behaviour change in single use cups and disposable materials in the Charles Sturt University's cafes. Before August 2017, CHEERS was not actively promoting reusable cups or the use of sustainable food packaging options. Financial incentives did not exist and the number of customers providing reusable cups equalled only three per cent of total sales prior to the campaign.

CHEERS and CSU Green undertook a campus-wide campaign to reduce the price by 50 cents to purchase a hot beverage if a reusable cup mug was provided. The BYO cup incentive was largely lead by staff. An active program educating customers at the point of sale, and the provision of statistics about sales resulted in 60 per cent of total sales in reusable cups in a ten month period. Staff and students were not aware of the impacts of waste going to landfill from CHEERS cafes until statistics were publicised in the promotional material. So the initiative improved understanding of waste consumption in staff and students.

The Charles Sturt University's War on Waste campaign also is reducing consumption of single-use plastic bags by the introduction of a returnable and reusable Boomerang Bag system. Additionally, we targeted more sustainable catering packaging where Biopaks have replaced disposable plastic cutlery and takeaway containers.

The CSU War on Waste campaign also is reducing consumption of single use plastic bags by the introduction of a returnable and reusable Boomerang Bag system.

Now, CHEERS outlets at most Charles Sturt University campuses have a constant level of staff and students using BYO cups. Most customers are aware of the negative impacts of waste in this area and behavioural change has evolved. Plastic bags, and single-use catering and packaging options are also on the decline. CHEERS aims to maintain awareness and promotion with incentives on all fronts allowing continual improvements in this space. We were recognised externally in May 2018 winning a national award from the Tertiary Access Group in the 'Best Commercial Retail Campaign' category for our CSU War On Waste.

By the end of the year, 91,891 customers purchased a hot drink from CHEERS outlets using their own cup! This was an awesome effort from the entire Charles Sturt University community. According to the ABC's *War on Waste* program 50,000 disposable cups fit into an average Melbourne tram – so that's nearly two trams of disposable cups that were saved from landfill thanks to Charles Sturt University students and staff in 2018! How much better can we do in 2019?



Director, Commercial Services, David Griffin with Manager Food & Beverage Services, Brett Russell accepting the prestigious award.

CANBERRA

After months of planning, Charles Sturt University's Division of Facilities Management staff – in consultation with staff at the Australian Centre for Christianity and Culture and St Marks, and the Friends of Grasslands – implemented a cool mosaic burn on the morning of Saturday 28 April. Conditions were perfect with an overnight minimum of three degrees and a maximum of 18 with minimal wind. The burn was conducted by the ACT Rural Fire Service (RFS) who used the exercise as a training opportunity.

The purpose of the burn was to create inter-tussock spaces to stimulate growth of the diversity of native forbs (wildflowers) and grasses. Also, to minimise opportunities for the spread of introduced species including Bearded Oats, Perennial Ryegrass and Serrated Tussock.



Aerial view of the Burn at St Marks, Canberra.



Before the burn at St Marks, Canberra in 2017.

Approximately sixty per cent of the two hectare grassland site was burnt. We expect a prolific growth spurt in a diversity of species including Kangaroo Grass, orchids, lilies and yam daisies. Charles Sturt University is grateful for Sarah Sharp's expertise regarding this ecosystem in association with the Friends Of Grasslands. Sarah returned to the site in November to quantify the impact of this cool mosaic burn on the biodiversity values. Her data suggests that the endangered Button wrinklewort numbers decline has halted and the plants are now making a very slow recovery.

Drone footage was taken before, during and immediately after the burn. The RFS implemented the burn, with light up at 10.00am and mopping up completed by 1.30pm.



ALBURY-WODONGA

With the assistance of a Charles Sturt University grass roots grant, academics David Watson and Dale Nimmo undertook a University bioQuest initiative during April. At the end of the competition, the Charles Sturt University team finished in the top ten in many of the competition's categories.

Three native grass planting days expanding Sloane's Froglet habitat were held on 18th July (CSU Foundation Day) and 7- 8 August with significant publicity (television news) with student, staff and community engagement, setting up ongoing partnership with Job Centre Australia.

The theme for the days was "Create the habitat and they will come" and 1295 natives were planted. Additionally, ILWS staff participated with the Office of Environment and Heritage Sloane's Froglet monitoring activities, and Environmental Science student Trevor Osbourne set up 13 photo points in the biodiversity zones to monitor their condition over time.

WAGGA WAGGA

Biodiversity management has been a highlight this year driven by a group involving CSU Green, grounds staff and Charles Sturt University's farm manager. They meet monthly and have increased active management and monitoring of the biodiversity zones on the farm and on campus.

Key highlights include:

- an ecological burn at Yindiyamarra biodiversity area E on 7 June in partnership with the RFS Riverina
- the recruitment of Kirra Molony, third year agricultural science student, to undertake photo point monitoring
- partnering with Erin Earth's Tina de Jong to monitor the Yindiyamarra area
- the purchase of new lands at Hopetoun, which will add approximately 10.5 hectares to the university's biodiversity inventory
- the erection of six interpretive biodiversity signs highlighting significant flora and fauna across campus in December.

The incoming Campus Environment Committee (CEC) Chair Collin James, proactively boosted interest in the committee's activities to over 20 new stakeholders. Five sub-groups formed to work on specific projects on campus including: celebrating Yindiyamarra Stories; waste reduction; signage and wayfinding; Wiradjuri pharmacy; and Yindiyamarra refresh and improvements.

The CEC temporarily closed the Trig Hill walk, biodiversity zone E, from July to December due to caltrop weed infestation. New gates were installed and the track was defined with logs. Tree planting day was 28 July involving 20 volunteers (students, staff and community members), who planted 520 trees in two hours on the Hooligan's Creek riparian zone on our farm.



Yindiyamarra Hill on Charles Sturt University's Wagga Wagga campus before the burn.

Yindiyamarra burn

The first cool ecological burn on Yindiyamarra in 12 years was safely implemented in biodiversity zone E on 7 June 2018. The burn was coordinated by CSU Green and the Division of Facilities Management (DFM) in partnership with the Rural Fire Service (RFS) Riverina. Weather conditions looked positive just a few weeks after the first frost of the season. On the day, conditions were very favourable, with winds forecast to be north-north-east pushing smoke onto rural lands and away from the centre of campus. The aim was to execute a moderate intensity burn to drastically reduce weed infestations and to trigger the native grass seed bank.

The Yindiyamarra site is a rocky knoll with large exposed granite boulders. It is covered with dry grasses, some native but predominantly introduced species, overgrown due to recent dry conditions. There are pockets of planted native trees along the northern boundary and several large habitat trees. DFM staff prepared the site with one-metre fire breaks of bear earth around the perimeter of the burn site. All trees (living and dead) were cleaned around the base to near-bare earth. All our neighbours were notified, particularly along Estella Road by an extensive flyer drop two days before. The project was an example of great team work between Will Pollock, Simon Cole, David Millar and Kym Witney-Soanes with Bradley Steward from the RFS.

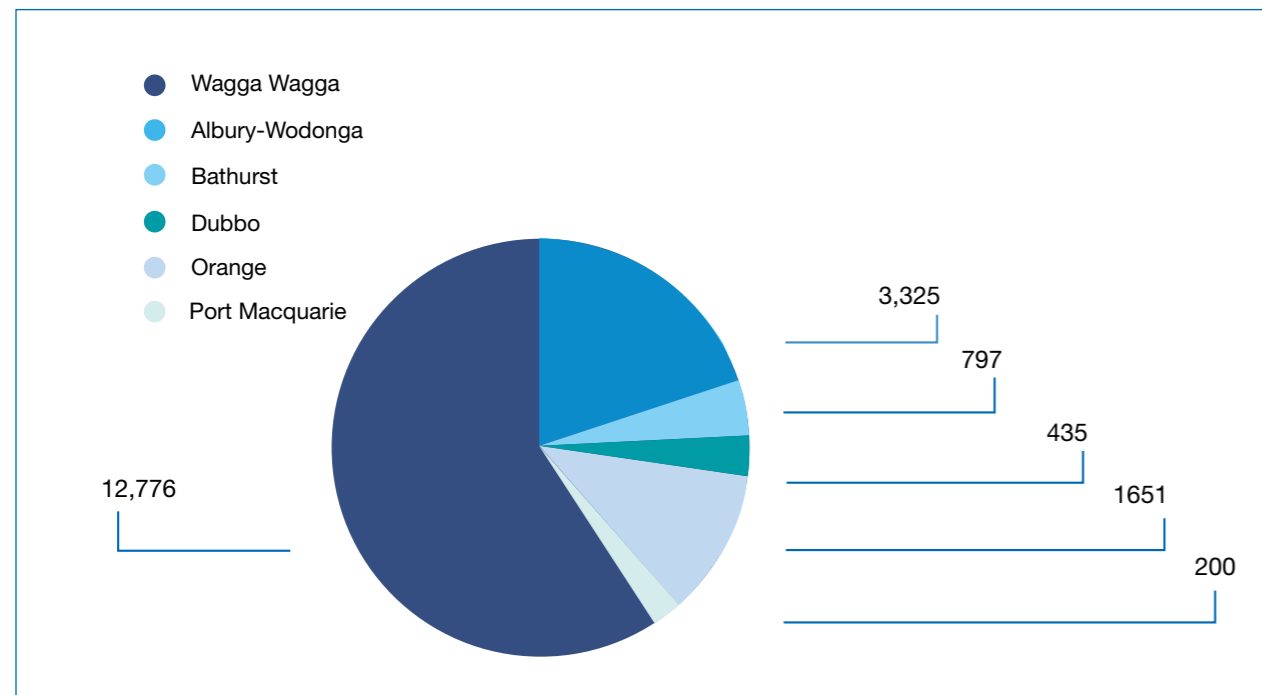


Yindiyamarra Hill during the burn taking place.





TREE PLANTING



BATHURST

Tree planting day was on 8 August with unfortunately underwhelming staff and student participation. Nevertheless, DFM staff planted 100 seedlings at the western end of the biodiversity zone along Hawthorden Creek, similar to last year. Improvements need to be made in engagement next year.

DUBBO

Tree planting day was held on 24 July involving 13 people. It was lower key event than usual but everyone was happy and interested and 25 seedlings were planted at the front entrance.

Bird surveys continued in the biodiversity zone thanks to an ongoing partnership with the Dubbo Field Naturalist & Conservation Society, and Campus Environment Committee members participated in the Dubbo Sustainable City Expo and Science Festival on 23 August.

ORANGE

A project partnership with Orange City Council, with funding assistance from Local Land Services, has been established to remove willow from 450 meters of riparian zone that passes through the campus.

Tree planting day was on 17 August. A total of 165 seedlings were planted along Lens Gully by 19 community landcarers, staff and students.

PORT MACQUARIE

Vegetation, waste, transport and koala management plans formed part of the Environmental Sustainable Design (ESD) plan this year. Tree planting was held in conjunction with the Future Moves team and school students in August, with approximately 100 indigenous melaleuca and tea tree species added to the existing remnant vegetation between the existing stage 1 and stage 2 sites.



Staff carpooling.

TRANSPORT

CARPPOOLING INCENTIVE SCHEME

Rewards were introduced in 2018 for Charles Sturt University staff who proactively made arrangements with colleagues to carpool when travelling for university business. The simple scheme offers a token for a free hot beverage from any of the university's on-campus cafes. The scheme has been very popular among staff and this small gesture has encouraged staff to rethink their normal habits in favour of a more efficient alternative. A total of 657 free beverage vouchers for carpooling were distributed from July to November in 2018.

Data collected following the reward scheme launch in June 2018 showed that 12 per cent of total kilometres travelled were done as a result of staff carpooling in 2018. The benefits of the carpooling reward scheme, in addition to putting a little bit of extra fun into the day of university staff, include: reduced operating costs due to vehicle running costs, greenhouse gas savings and an increasingly-connected workforce as a result of additional time spent interacting with colleagues.

Tahlia Danks from Port Macquarie took nine car pooled trips, collecting 18 vouchers and travelling 1448 kilometres in total.

SUSTAINABLE ICT

E-WASTE STATS

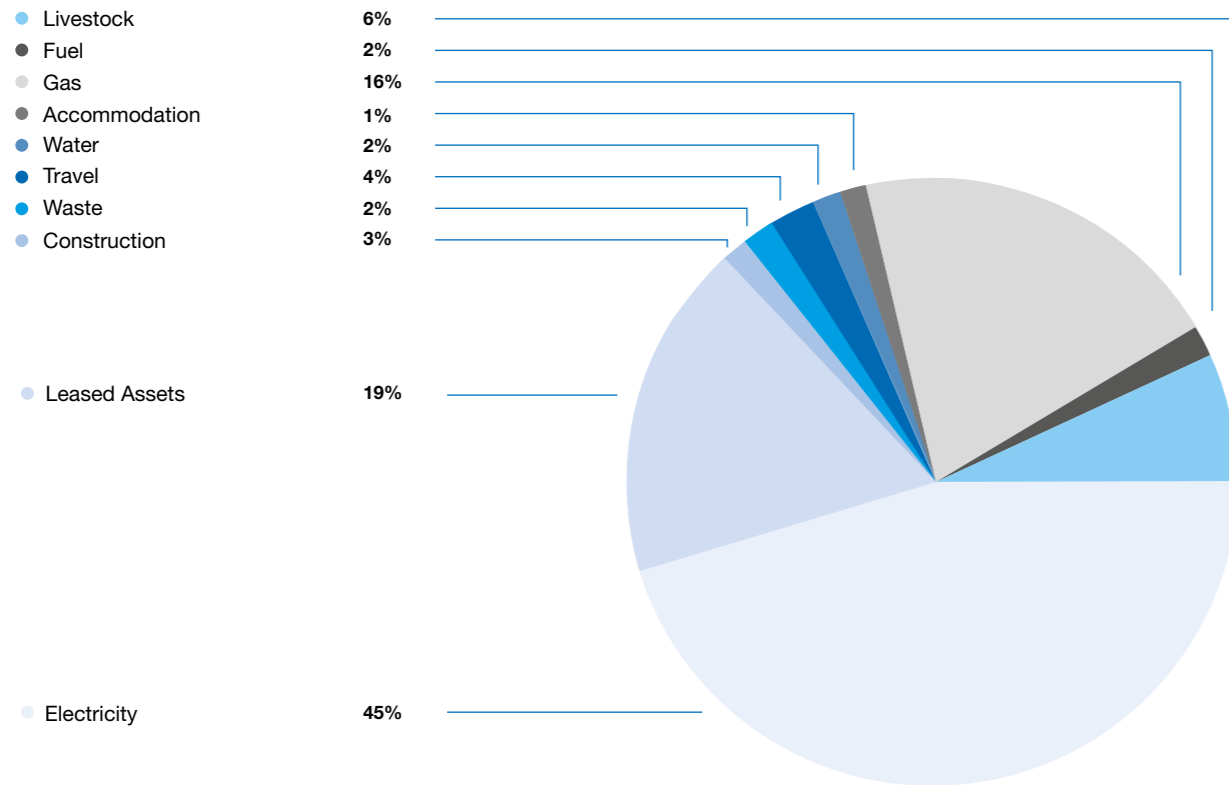
Sustainable ICT was boosted this year with the re-emergence of the Division of IT Environmental Sustainability Working Party. This group will act as LiFE Champions and review the action plan for this framework in 2019.

Charles Sturt University takes the disposal of old IT equipment (PCs, laptops and peripherals) seriously. The Charles Sturt University Computer Shop at Bathurst collects university-owned IT equipment destined for disposal and assesses whether they can be:

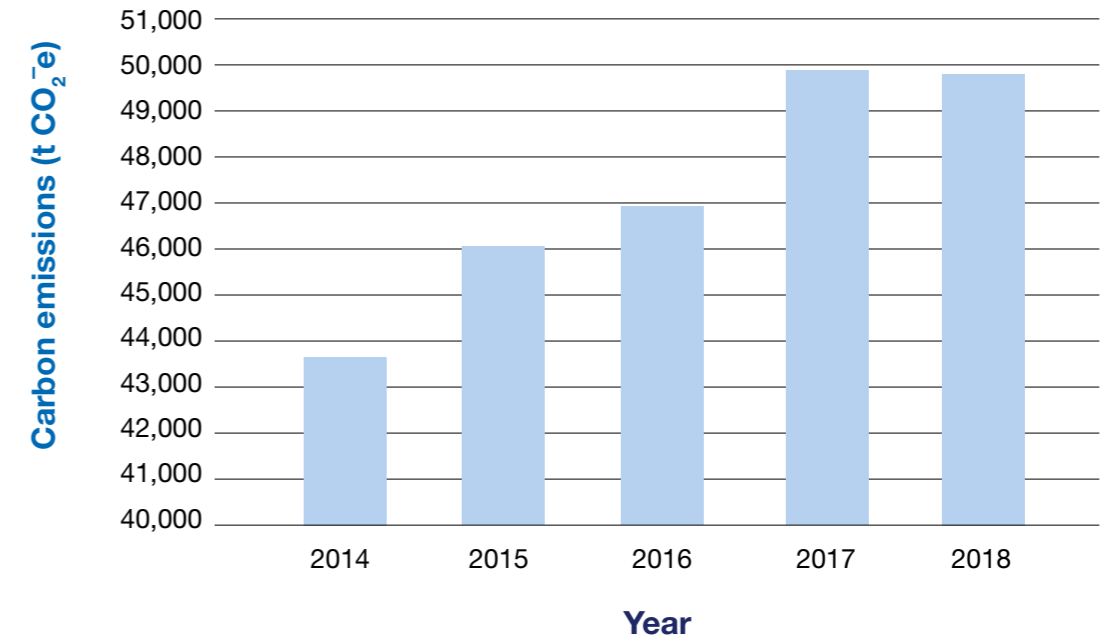
- donated to not-for-profit organisations or charities,
- sold at public auction
- disposed as e-Waste.



CSU's carbon footprint-breakdown by source



CSU's total carbon footprint



Breakdown by source

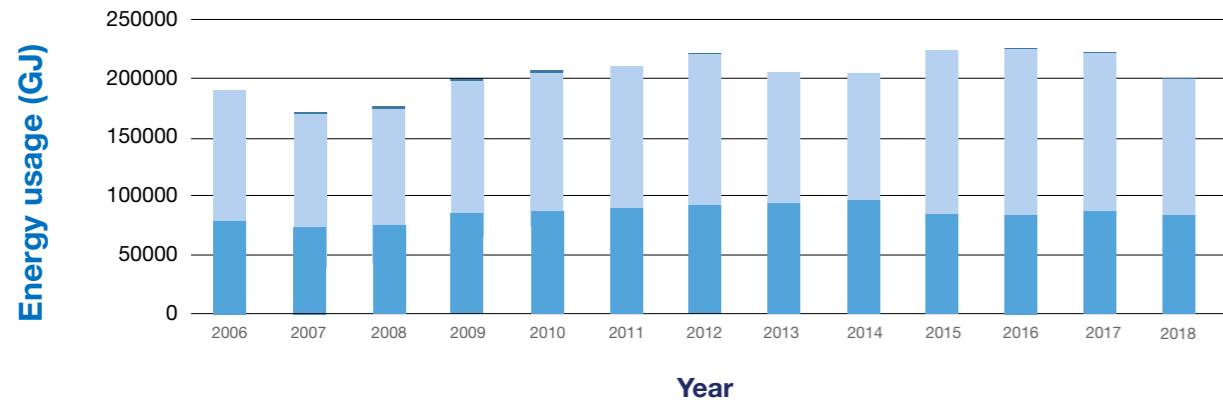
Charles Sturt University's carbon footprint has decreased in 2018 compared to 2017. This was driven by the following changes:

- a reduction in electricity use at the Wagga Wagga campus due to the installation of solar panels
- natural gas usage was reduced, however an increased number of students in leased buildings increased energy use
- an increase in construction across the university compared to 2017

Carbon emissions

As in previous years, Charles Sturt's carbon emissions are dominated by energy usage: electricity (45 per cent) and natural gas (16 per cent) are the two largest categories of emissions, livestock is the third largest source of emissions at 6 per cent followed by travel (4 per cent) and construction (3 per cent). Fuel usage, water and waste are the next three largest source of emissions. Charles Sturt is continuing to deploy significant rooftop Solar PV which over time will significantly lesson electricity emissions.

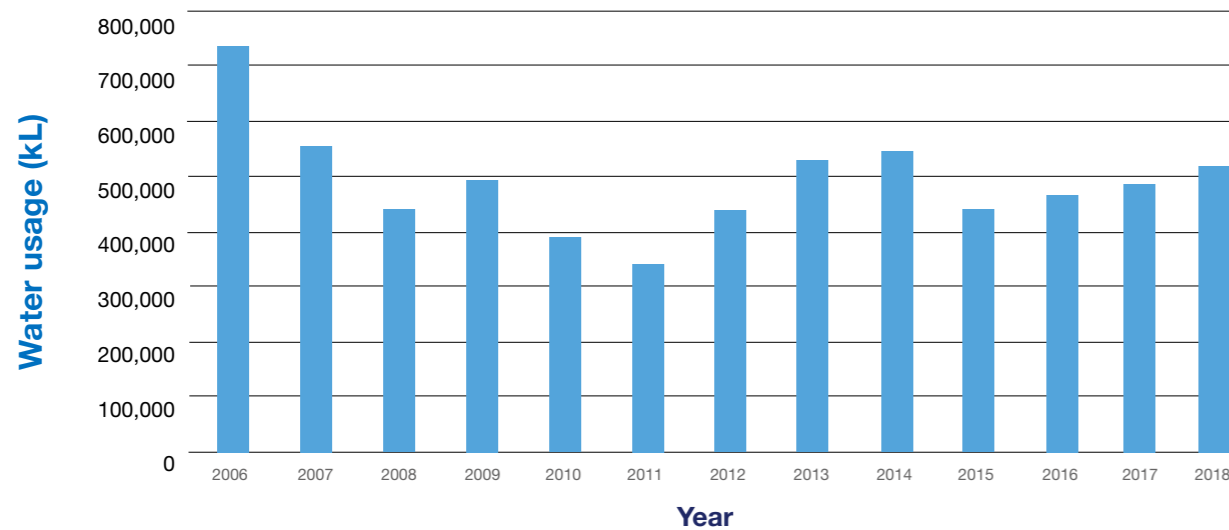
CSU's energy usage



Energy use is down year on year and in 2018 was the lowest for a decade. This signals that investment in efficiency and behaviour change through education may be starting to pay benefits. Significant falls in gas for heating might be attributable.

- Electricity (GJ)
- Gas (GJ)
- LPG (GJ)

CSU's water usage



Charles Sturt University's water use has increased in 2018 as NSW entered a second year of drought. Increased watering of grounds is likely as second year impacts are often more obvious with mature trees and groundcover starting to die off.



CSU WAR ON WASTE THE BATTLE CONTINUES

Following the success of the War on Waste campaign, the CHEERS team were presented with an internal Strong University Award in July. In November, Charles Sturt University were finalists in the 2018 Green Gown Awards Australasia, in the Campus Health, Food and Drink category. As a university, we are committed to continuing to build on this success into 2019 and beyond.



CHEERS staff with coffee vouchers.



Students taking advantage of the discount coffee vouchers.

SUSTAINABLE CONSTRUCTION AND RENOVATION

PORT MACQUARIE STAGE 2

Designing for the second stage of campus development for Charles Sturt University at Port Macquarie commenced in 2018. This development, consisting of 4176 m² two-storey building comprised of predominantly teaching space will support the next stage of growth in student numbers at Port Macquarie.

Similar to the approach taken throughout the first stage of development Charles Sturt University has partnered with recognised consultants, Arup and architects BVN, to establish a sustainability framework for the design and delivery of the project that is complementary with the regional location and university's sustainability goals. The framework is based on Arup's Sustainable Project Appraisal Routine (SPeAR) and guides the design and delivery of the new development against the following focus themes:

- Energy and carbon
- Water
- Sustainable materials
- User comfort and wellbeing
- Sustainable transport
- Operation
- Social and community

The project team have had the advantage of reviewing the performance of the stage one development and actively using this to inform decisions for stage two. This process has included drawing on utility consumption data captured through local sub-metering systems and building performance data available through the comprehensive building management system.

Charles Sturt University is confident that stage two campus development for Charles Sturt at Port Macquarie will not only maintain but also enhance its reputation in the Port Macquarie-Hastings region as an organisation that is seriously committed to sustainability and models these values through campus design.

Aerial view of Charles Sturt University in Port Macquarie Stage 1. Stage 2 will also have a sustainability framework in design and delivery.



SDG ALIGNMENT



