UC Sustainability Report

2016

UC Sustainability Office Report 2016

Contents

1. Introduction

This report is undertaken annually by the UC Sustainability Office.

Sustainability planning at the University of Canterbury is based on the draft 'Sustainability Strategy 2012-2022', which breaks sustainability planning into short, medium and long term objectives. Annual planning for sustainability at UC is handled by the Sustainability Office and the operational elements of this are encapsulated in the Engineering Services Operational Plan.

In 2014, the Sustainability Office's staffing capacity was reduced by 1FTE, and in 2015 this was further reduced. At the end of 2016 there were no full time staff working in the Office. The result of this has been reduced capacity to maintain the sustainability programme. In particular, direct contact with the student population has declined, and many of the community engagement programmes and projects have had to be suspended. Instead, the Sustainability Office has worked to consolidate its focus on the operational matters it had a mandate to influence (e.g. waste, green cleaning, transport, fair trade and waterways).

Living in Future Environments (LiFE)

The Sustainability Office is reviewing how best to undertake its reporting, and to this end is exploring the Living in Future Environments (LiFE) framework. This was developed in Australasia by Australasian Campuses Towards Sustainability (ACTS) as a sustainability reporting and strategy framework for tertiary education institutions, and UC was one of the original participants in the beta testing phase. It is very flexible and free for ACTS members to use (UC is an ACTS member). It has been created in partnership with ACTS' equivalent in the UK. LiFE can also be used as a benchmarking tool, although we are not exploring that possibility at this stage.

LiFE is divided into four categories which cover the following areas:

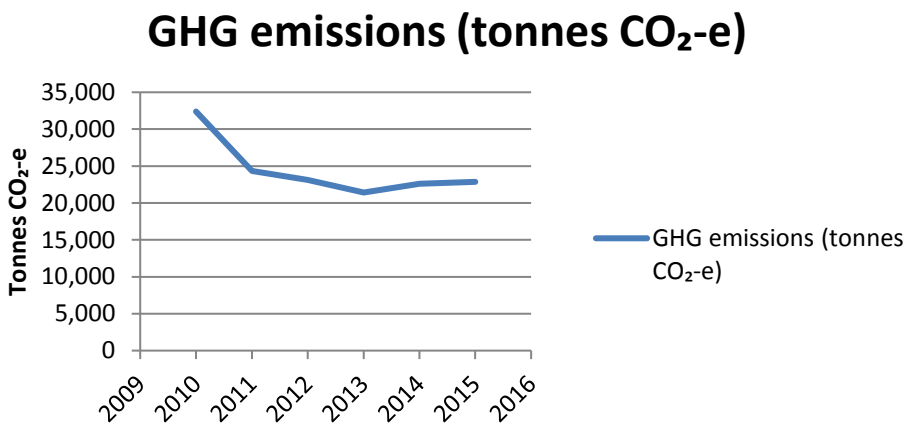
- Leadership and Governance
- Partnerships and Engagement
- Facilities and Operations
- Learning, Teaching and Research

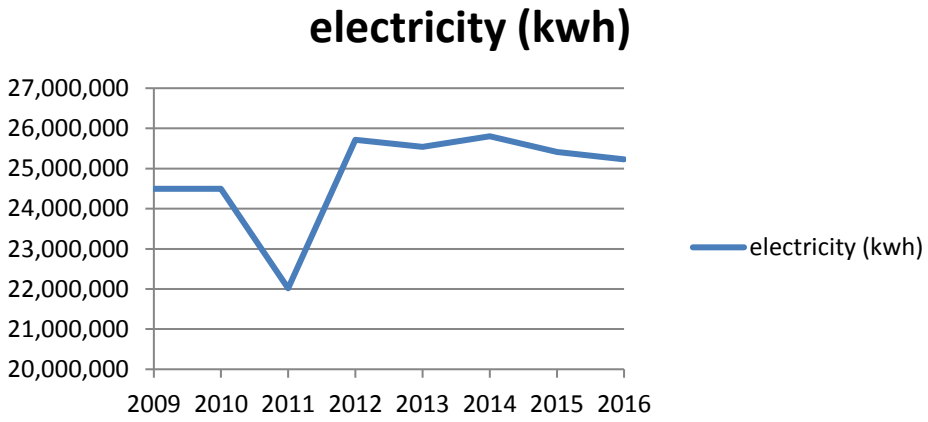
This report, while not following the LiFE framework exactly, begins to reframe our reporting so that it will align better with LiFE.

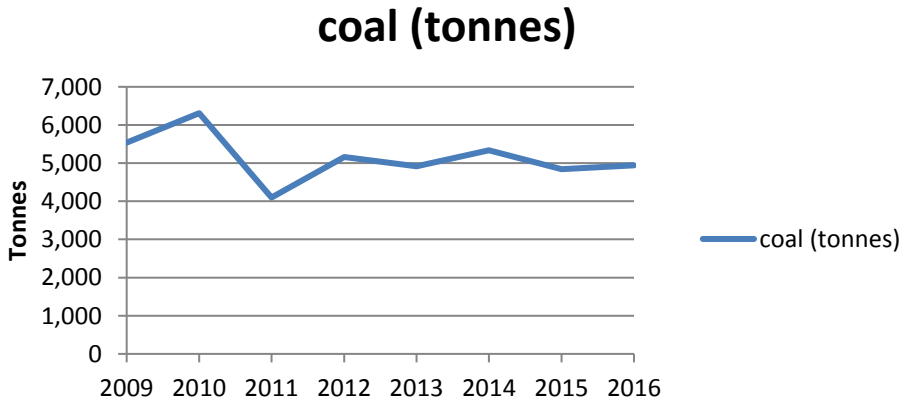
Further information on LiFE can be found here.

2. Leadership and Governance

LiFE recommends a clearly articulated Sustainability Strategy be adopted by the Senior Management Team. The UC Sustainability Strategy was prepared and presented to SMT at an inopportune time early in 2012 (not long after the devastating Canterbury earthquakes), and is still on hold. Statements from the Vice Chancellor and Chancellor during 2016 indicate that a review of this situation is underway.







3. Facilities and Operations

3.1 Greenhouse Gas Emissions Reporting and Reduction

The University of Canterbury is certified with the Certified Emissions Measurement and Reduction Scheme (CEMARS). This allows us to comprehensively track our Greenhouse Gas (GHG) emissions and reduce them. Our carbon profile can be found here.

The Canterbury earthquakes resulted in an immediate drop in GHG emissions as a result of business interruption and the closure of many buildings. As these buildings have begun to come on-line again, GHG emissions have increased gradually since 2013, but are still well below pre-earthquake levels. This is due to significant efficiency measures with the coal boiler plant and improvements in building insulation.

Late in 2013 a process commenced at UC led by the Energy Manager to conduct a feasibility study into carbon reduction, low-carbon space heating provision and the role of the existing coal boiler facility. The feasibility study outlined the options available to UC to pursue, and a direction to proceed with more detailed planning has been given by Senior Management. Implementation of solutions will be on a project by project basis. Remedial works have had a betterment component, meaning improved building envelopes and new energy efficiency measures. The new low carbon Students' Association building, part of the Health & Wellbeing Precinct, will be heated using a ground source heat pump.

3.2 Landscape and Biodiversity

The Sustainability Office developed a draft Landscape Strategy in 2013, followed by a Landscape Concept (2014-2022), which was foreshadowed by the Draft Sustainability Strategy in 2011. The Landscape Concept is intended to help immediate landscaping designs as part of specific remediation projects and also to inform the forward-looking Campus Master Plan. It presents a brief landscape history of the Ilam Campus, summarises current thinking and suggests five themes that the new Landscape Plan should take into consideration. These themes are: native landscaping, stream restoration, mahinga kai and edible landscaping and historical associations. This Landscape Concept is one of the key reference documents that the Campus Master Plan draws on.

3.2.1 Waterways

In 2015, the Sustainability Office developed a "UC Waterways Issues and Options" document, in consultation with a range of UC academics, Ngāi Tahu Research Centre and UC Grounds. This document is intended to inform the UC campus master planning process, particularly with respect to thinking about waterways within a landscape planning context. A Waterscape Action Group was established during 2016. Convened by Sustainability Projects Facilitator Katie Nimmo, this group maintains an overall view of waterways health on campus.

Members of the Waterscape Action Group. Photo: Katie Nimmo

3.2.3 Mahinga Kai and Biodiversity

Enhancing mahinga kai values is a core principle in the Landscape Concept and the Waterways Issues and Options document. They may feed into the high level Landscape Strategy which is being tabled at SMT during 2017.

In the meantime, as flagged in our 2015 report, the Sustainability Office has benefitted from data gathered by 200 level Biology students, who surveyed bird and plant populations on campus as part of their course work (see 3.2.3.ii below). This data represents the first ecological reporting in our annual Sustainability Report, and is thus a significant milestone. It is also timely given the current emphasis on landscape planning. We hope to continue this relationship with Biological Sciences in the years to come.

3.2.3.i Ecological health of Okeover Stream

Professor Jon Harding, School of Biological Sciences

The biological health of Okeover Stream has been monitored annually since 2000 by staff and students of Biological Sciences. In 2015 and into 2016 the reach between Engineering Road and E8 dried and several accidental and unintended sediment discharges occurred during construction. This resulted in a significant decline in ecological health and habitat quality in this section of the stream. Downstream from Engineering the ecology health remains poor with <14 species of stream invertebrates and the MCI (a measure of stream health) indicating the stream is moderately polluted.

UC contractors have been required to improve controls and monitoring through their Environmental Management Plans.

3.2.3.ii Bird Diversity at UC: A Comparison between 1990 and 2016

Professor Jim Briskie, School of Biological Sciences

SUMMARY

As part of a lab exercise for Biol 273 (New Zealand Biodiversity and Biosecurity), a bird atlas of campus was created, and compared to a similar atlas from 1990 by Krystyna Dodunski, a former student in the Zoology Department. A total of 16 species of birds was observed in 2016 (5 native, 10 introduced, 1 hybrid), compared to 15 species recorded in 1990 (4 native, 10 introduced, 1 hybrid). One native species (bellbird) that was absent in 1990 now has a small population on campus. One introduced species (Australian magpie) that was present in small numbers in 1990 is now absent. The rock dove, an introduced pigeon, was not observed in 1990 but is now one of the most abundant birds on campus. In contrast, the introduced house sparrow was the most common bird on campus in 1990, and although still common in 2016, its population has declined dramatically. The greatest diversity of native birds occurred along the waterways that pass through campus. The changes in the composition and abundance of birds between 1990 and 2016

Table 1. Total number of cells in which each species was recorded in 1990 (from Dodunski 1990) compared to 2016. The total number of possible cells was 103.

Species	Number of cells in which each species was recorded	
	1990	2016
Native species		
Fantail (*Rhipidura fuliginosa*)	2	9
Grey warbler (*Gerygone igata*)	1	19
Bellbird (*Anthornis melanura*)	0	4
Silvereye (*Zosterops lateralis*)	12	51
Welcome swallow (*Hirundo tahitica*)	- *	5
New Zealand pigeon (*Hemiphaga novaeseelaniae*)	0 **	0 **
Introduced species		
Australian magpie (*Gymnorhina tibicen*)	2	0
Rock dove (*Columba livia*)	0	45
Blackbird (*Turdus merula*)	47	89
Song thrush (*Turdus philomelos*)	19	40
Dunnock (*Prunella modularis*)	17	52
House Sparrow (*Passer domesticus*)	43	85
Greenfinch (*Carduelis chloris*)	4	16
Goldfinch (*Carduelis carduelis*)	10	20
Redpoll (*Carduelis flammea*)	6	9
Chaffinch (*Fringilla coelebs*)	2	11
European starling (*Sturnus vulgaris*)	7	14
Hybrid species		
Grey duck/mallard (*Anas superciliosa/A. platyrhynchos*)	12	24
Total number of species observed	15	16

* Not counted by Dodunski (1990) although she noted they were present.
** Not observed in either survey but this species does occur in Riccarton Bush, and occasionally one individual is observed on campus.

is likely a product of increased plantings of native trees (which are favoured by native birds) and decreased open space (habitat favoured by many introduced species).

RESULTS

The campus was divided in 108 'cells' and each surveyed for species and numbers of birds present. The number of cells in which each species was recorded are summarised in Table 1, and the distribution of bird diversity is mapped in Figure 1. Five native species were observed in 2016, but only 4 were found by Dodunski in 1990. A small number of bellbirds were observed in the 2016 survey, a native species that appears to be in the early stages of colonising the campus as it was not observed in 1990. Three other native species that were observed in 1990 are now present in a greater number of cells. For example, grey warblers were found in only 1 cell in 1990 but now range across 19 cells (Table 1). Both silvereyes and fantails also show a greater range in 2016 than in 1990 (Table 1).

Among introduced species, the rock dove was not observed in 1990 but has now become widespread on campus, roosting and nesting on many buildings. In contrast, the introduced Australian magpie was not observed in 2016, and appears to have disappeared since 1990, though it was only ever present in low numbers. Most introduced species appear to have increased the range, occupying more cells in 2016 than in 1990 (Table 1).

The numbers of each species observed are given in Table 2. It should be noted that birds were not banded for individual identification, and so these values for population size should be taken as rough estimates only. Nevertheless, it appears that the populations of all native species have increased (Table 2), although the most common species on campus are still a variety of introduced European passerines. For example, the native silvereye increased from an estimate of 24 birds in 1990 to 151 birds in 2016. It is now the most common native bird on campus.

Table 2. Total number of individuals of each species recorded in 1990 (from Dodunski 1990) compared to 2016.

Species	Number of individuals of each species recorded	
	1990	2016
Native species		
Fantail (*Rhipidura fuliginosa*)	7	11
Grey warbler (*Gerygone igata*)	1	18
Bellbird (*Anthornis melanura*)	0	3
Silvereye (*Zosterops lateralis*)	24	151
Welcome swallow (*Hirundo tahitica*)	- *	4
New Zealand pigeon (*Hemiphaga novaeseelaniae*)	0 **	0 **
Introduced species		
Australian magpie (*Gymnorhina tibicen*)	3	0
Rock dove (*Columba livia*)	0	175
Blackbird (*Turdus merula*)	104	192
Song thrush (*Turdus philomelos*)	37	34
Dunnock (*Prunella modularis*)	29	61
House Sparrow (*Passer domesticus*)	>710***	287
Greenfinch (*Carduelis chloris*)	23	18
Goldfinch (*Carduelis carduelis*)	57	141
Redpoll (*Carduelis flammea*)	7	27
Chaffinch (*Fringilla coelebs*)	3	11
European starling (*Sturnus vulgaris*)	12	12
Hybrid species		
Grey duck/mallard (*Anas superciliosa/A. platyrhynchos*)	39	54

* Not counted by Dodunski (1990) although she noted they were present.
** Not observed in either survey but this species does occur in Riccarton Bush, and occasionally one individual is observed on campus.
*** Estimated from Dodunski (1990).

Table 3. A comparison of flock size in house sparrows as observed by Dodunski (1990) and in the current survey (2016).

Flock size	Number of flocks observed	
	1990	2016
> 20 birds	29	0
10-20 birds	10	6
< 10 birds	6	58

In 1990, the introduced house sparrow was the most common introduced bird, so much so that Dodunski was only able to estimate their numbers in broad categories (flocks of < 10, 10-15, and > 20 birds). A comparison of the number of flocks observed in each of these size categories reveals the dramatic decline in numbers of house sparrows between the two surveys (Table 3). Whereas flock of sparrows > 20 birds were the most frequently observed in 1990, by 2016 not a single flock greater than 16 sparrows was observed, and instead, most sparrows were observed in flocks of < 10 individuals.

Figure 2 shows the current distribution of native birds on campus. The cells with the greatest diversity of native birds are concentrated along the waterways that pass through campus.

RECOMMENDATIONS

The results of this survey indicated that in the 26 years that have passed between 1990 and 2016, all native species have increased their range and abundance, with one species, the bellbird, now in the early stages of colonising campus. Although the causes of this change cannot be certain, it is likely that the increased use of native shrubs and trees in plantings have provided more habitat for native species of birds. The concentration of native birds in and along the waterways that pass through campus, which are now largely planted with native vegetation, would seem to

Nesting bellbird. Photo: Jim Briskie

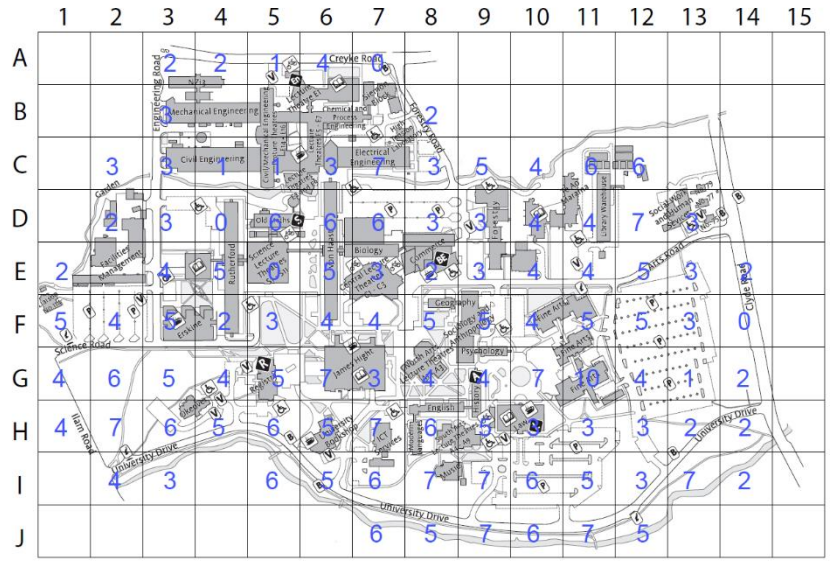


Figure 1: Distribution of bird biodiversity

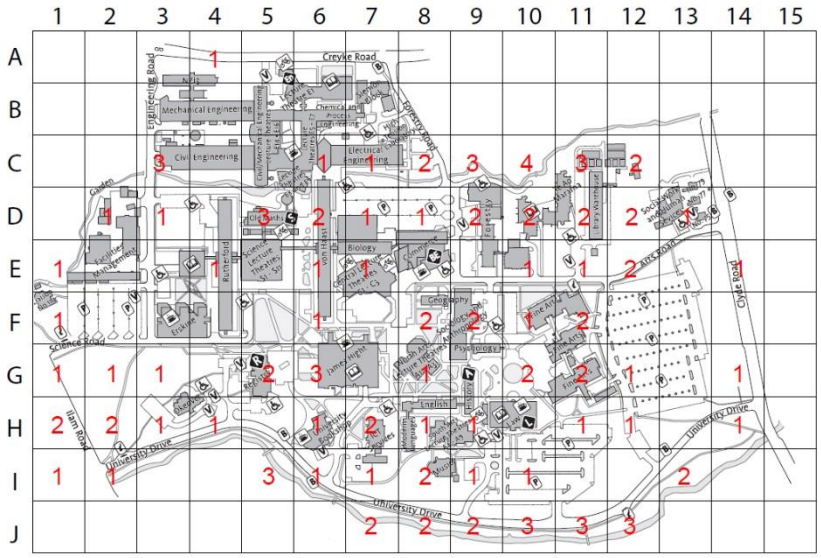


Figure 2: Distribution of native birds

support this suggestion. A strategy of maintaining and expanding native plantings should help to further increase the range and abundance of native birds. Given the dependence of bellbirds on flowering and fruiting trees, it might also be worth considering plantings that provide this resource, and ensuring the current small population of bellbirds does not disappear.

In contrast to native birds, most introduced birds either remained common or have increased slightly, although one species (magpie) has disappeared and another (house sparrow) has decreased in numbers dramatically. The cause of the decline of these two species is not known but may be related to the general decline in open spaces that are now occupied by native plantings. Unfortunately, one new introduced species (rock dove) has colonised campus since 1990 and is now a common sight on buildings (which they use as nest sites). A programme of using a trained New Zealand falcon to chase away rock doves has been implemented, and it will be worth monitoring the population of this pest species over the next few years to see if it has been successful.

Restoring species that formerly occurred in the Christchurch area but are now locally extinct could be a long-term goal for the management of the campus green spaces. One species which could potentially colonise on its own is the native pigeon, or kererū. Although none were observed during the course of the survey, the occasional kererū is observed on campus, presumably from a small population that nests in Riccarton Bush. Like the bellbird, kererū require extensive plantings of native shrubs and trees to provide them with the leaves and fruit in their diet. Selective planting of native trees, especially to replace exotic trees that are being removed due to age or safety concerns, could be a way to create the habitat needed for kererū to become permanent residents of campus.

3.2.3.iii Plant Biodiversity

Dr Pieter Pelser, School of Biological Sciences

The BIOL273 students studied the biodiversity on the Ilam campus of woody plant species that are native to New Zealand.

They found 63 native woody plant species and arrived at the following conclusions:

-There are two centres of woody native plant diversity on the Ilam campus: the area around the Von Haast Building and the area around the Forestry, Te Ao Marama and Glass House buildings

-The most common native woody plant taxa are the various cultivars of Hebe (*Veronica* spp.) and Totara (*Podocarpus* spp.), cabbage trees (*Cordyline australis*), lancewood (*Pseudopanax crassifolius* & *Pseudopanax ferox*) and cultivars of korokio (*Corokia* spp.)

-The woody native plant diversity on the Ilam campus consists of species that are native to the Canterbury region as well as species that are not naturally occurring here, but that are native elsewhere in New Zealand (e.g., large-leaved kowhai (*Sophora tetraptera*).

-Several commonly planted native woody plant taxa are mostly represented by cultivars as opposed to naturally occurring forms (e.g., Hebe).

The students recommended:

-Planting of a higher diversity of native woody species in areas on the Ilam campus that currently have low diversity. This might help to mitigate the loss of diversity when plants around the Von Haast building will be removed as part of the demolition of that building.

-Planting of more plant species that are native to the Canterbury region as opposed to New Zealand natives that do not naturally occur in Canterbury.

3.2.4 Edible Landscaping

Edible Landscaping was discussed as an option during the Campus Master planning process during 2016, and we are awaiting the outcome of this. There have been some experiments with Edible Landscaping beyond the two community garden spaces on campus. Most notable is the landscaping outside of 1894 Café by the James Hight/Puaka building, which includes pears, citrus, Chilean guavas and feijoas. In 2016 the Sustainability Office also updated and reissued an Edible Campus Map, which shows foraging options around the campus.

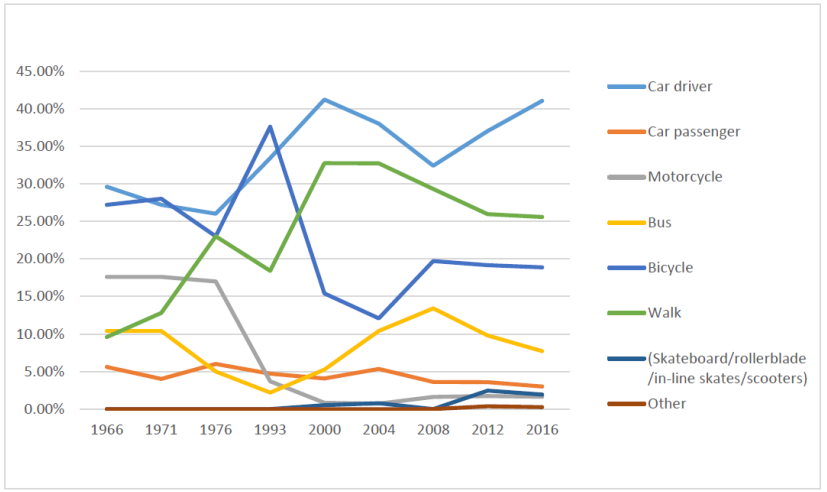
3.3 Transport

3.3.1 2016 UC Travel Survey

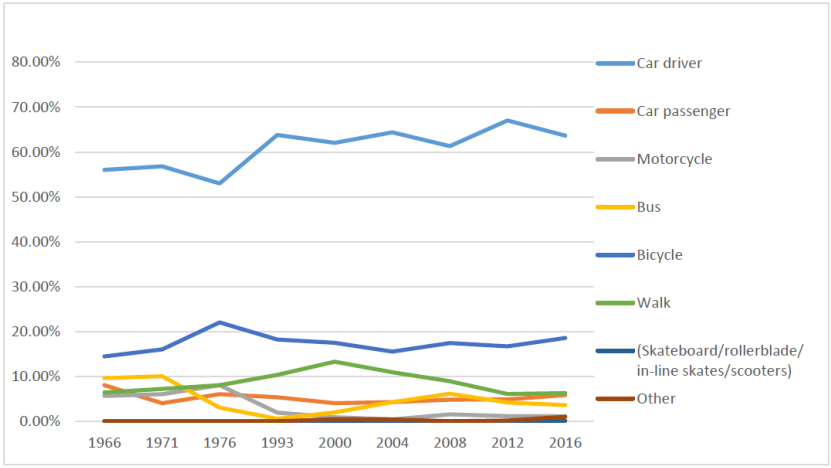
In 2016 the Sustainability Office coordinated the four-yearly Travel Survey. This survey has been undertaken at various intervals since 1966, and every four years (with mostly standardised questions) since 2000. In 2012 and 2016 this was issued to all staff and students via the on-line survey tool Qualtrics. In 2016 this survey included additional questions deemed important for the Integrated Parking and Transport Strategy being developed. The full draft report can be read here.

The survey revealed a continuing, concerning trend in student travel behaviour; car use has continued to climb since 2008, while walking, biking and especially bussing have declined. Our opinion is that changes to bus routes have had a negative impact for the University. On the other hand, staff reliance on cars has decreased, while biking has increased.

This may be a reaction to increased parking charges. Further analysis of this point may be found in the full survey report.



Student Travel behaviour, 1966-2016



Staff Travel behaviour, 1966-2016

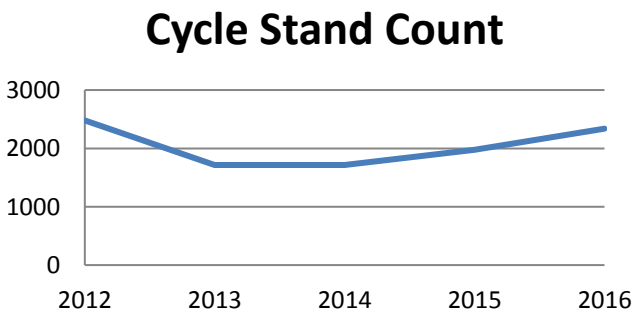
3.3.2 Integrated Parking and Transport Strategy

UC Council approved an Integrated Parking and Transport Strategy during 2016 which sets out a range of options for the University to pursue as the opportunities arise in this rebuild and recovery phase. Sustainability is a core principal in this strategy, which draws on the Sustainability Office's 2014 UC Cycle Strategy.

3.3.3 Bicycle Parking

UC has continued to increase its stock of bike racks during 2016. We have increased bike parks on campus by 693 parks since 2014, and are now very nearly back to pre-earthquake levels. We are required to increase bike parking capacity above and beyond what we had pre-earthquakes to comply with the District Plan.

It is frustrating that despite significant new purchases of bike racks, levels of available bike parks have not increased commensurately. This is because existing bike parking areas continued to be closed as the Capital Works programme progressed around campus. Planning is underway to significantly increase bike parking on campus again during 2017, as major projects are completed and to meet City Council requirements.



3.3.4 Dr Bike Service

The Sustainability Office continued to offer the Dr Bike mechanic service during 2016. They repaired 113 bikes during term time, which is slightly more than in 2015.

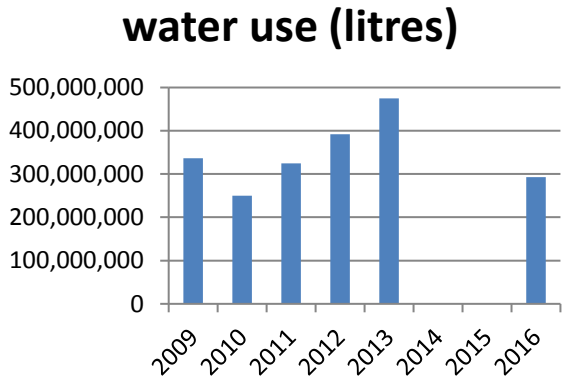
3.3.5 Transport Advisory Panel

The Transport Working Group met infrequently during 2016 but had an input into the Integrated Parking and Transport Strategy. At the end of 2016 it was reconstituted as a Transport Advisory Panel which will meet occasionally in 2017 to provide advice on specific transport related issues.

Dr Bike Mechanics, 2016

3.4 Water consumption

As previously reported, water metering at UC has been problematic since 2014. Inaccuracies were discovered in respect of the meters and their respective connected controllers and so the provision of information was suspended for 2014-15 whilst remedial measures were carried out. This has now been corrected and it is pleasing to see that water consumption has declined since earlier data sets were collected. Attention is now turning to improving the building by building reporting of water consumption, and the results of this work should be seen in 2018.

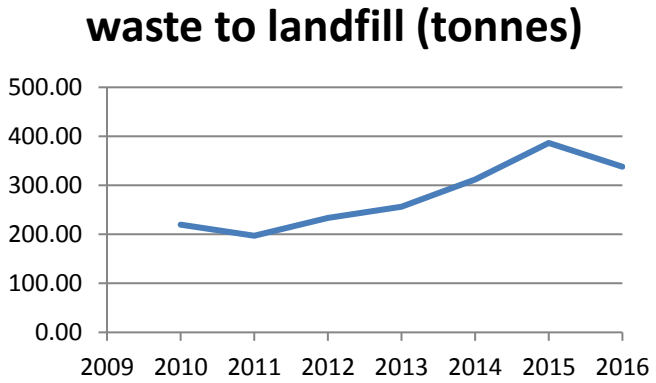


Chair of Waterscape Action Group Tom Cochrane (standing) with student Ryan Brosnahan and Head of Grounds Darryl Cone, 2013

3.5 Waste & Recycling

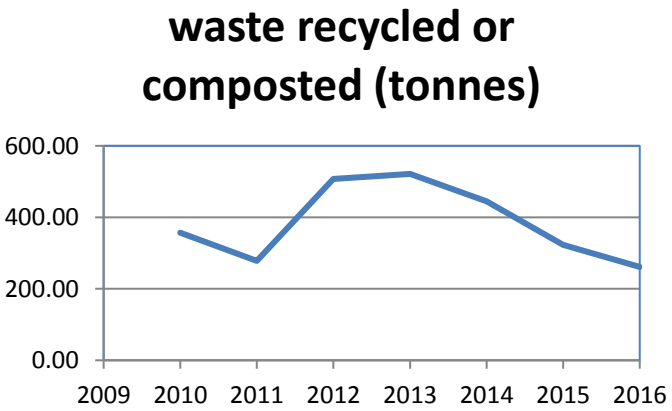
3.5.1 UC Waste Plan and Waste Statistics

The Sustainability Office developed a Draft Waste Management Plan, (2014-2022). It outlines the journey UC has been on regarding waste issues over the last fifteen years, establishes some waste reduction targets and key problems that need to be resolved, and creates a programme of work in short, medium and long term increments in order to address those issues.[1] A review of this plan was undertaken at the end of 2016 and considerable progress has been made in most areas.



It is pleasing to see that the year on year increase in landfill volumes finally dipped in 2016; UC sent 12.6% less waste to landfill in 2016 than in 2015.

The amount of waste being recycled or composted decreased again in 2016 (by 19%). This decline continues an overall decline in this category since a high point in 2013; between these two dates this category (which includes paper, cardboard, organics, comingle and document destruction) has declined by 49.9%.



3.5.2 Composting Coffee Cups

A trial to establish a separate collection point for takeaway coffee cups was established in 2014, with the cups collected being sent to the HotRot composting facility near Rolleston. The initial trial was successful and therefore was expanded in 2015, with the cups being sent to the Envirocomp facility near Rangiora. By the end of 2016, 50,000 coffee cups had been diverted from landfill. However, with the sale of Envirocomp in 2016, our ability to have these cups composted has been put on hold. The cups are still being collected, and as an interim solution they are being stored by Envirowaste in preparation for being recycled. In the meantime, Envirowaste is engaged in a composting trial with another provider which will hopefully provide a long-term composting solution.

3.5.3 Waste Service Provider

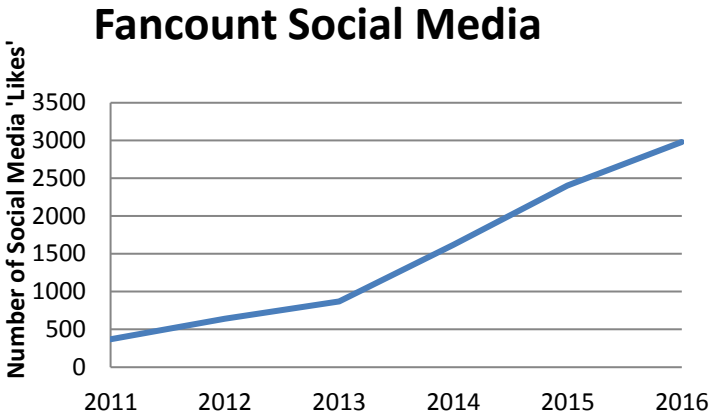
UC went out to market for a waste services provider in 2016, the first time since 2008. Envirowaste won the contract and are committed to supporting the UC Waste Plan.

4 Partnerships and Engagement

4.1 Sustainability Communications and Social Media

Dr Puck Algera, UC Sustainability Office

This year the reach and influence of our communications increased significantly. One contributing element is that our fan count continues to increase steadily, in particular across our UC Sustainability Community Facebook platform (+ 20%), and that we get great engagement on this platform. Another important element is that UC Communications recognised both the quality of, and engagement with, our publications and offered us 'administrator status' to the two main university communication channels, Insider's Guide and Intercom thus increasing the ease with which we can post through these channels.



Fancount (across all social media)					
Brand	Facebook Sustainability Community	Facebook Community Gardens	Instagram UC Sustain	Mailchimp subscriptions	Total
Fan count (Net Likes)	1 733 (+21%)	580 (+27%)	178	490 (+6%)	2981

We also added Instagram to our social media portfolio, allowing us to not just 'to keep up with the Joneses' but also connect with a wider stakeholder network, including Sustainability Offices at other Universities.

Facebook Reach and Engagement 2016			
	UC Sustainability Community	UC Community Gardens	Total
Reach[1]	350000	51753	451753
Daily Total Reach[2]	960	142	1102
Engagement[3]	18 331	2416	20747

[1] The number of people who have seen any content associated with your Page. These are Unique Users. Based on average of Daily Total Reach for previous 6 months.
[2] The number of people who have seen any content associated with your Page (Unique Users)
[3] The number of people who engaged with your Page. Engagement includes any click, reactions, comments & shares). These are Unique Users, so if they like or comment on a few different posts, they are only counted once. Based on average of Daily Engaged Users for previous 6 months (1.7.16-27.12.16).

Blog Views 2016				
Blogs	Insider's Guide	Intercom	UC Sustainability Wordpress	Total
Total views	4 973	1 085	3 102 (+13%)	9 160
Number of posts	35	31	46	112
Visitors	Not available	Not available	1 966 (+29%)	

Overall, the proliferation of social media channels has increased the overall complexity of managing and resourcing communications. Where a few years ago we would just send out a newsletter, such media are no longer effective as the focus of our intended audience is on social media and the attention span to read more extensive communications has shortened.

Despite our increased reach and influence, we do, in particular for university wide communications (e.g. related to recycling changes, Eco Week announcements) require the support of UC Communications/UC Marketing (e.g. access to poster spaces, posts on UC Facebook) to be effective.

Fancount compared to other UC Facebook Pages		
Ranking	**UC Facebook Page**	**Fan count**
1	UC Engineering	2759
2	UC Library	1930
3	UC Sustainability Community	1733
4	UC HitLab	1541
5	UC Pacific Development	1421

Goal

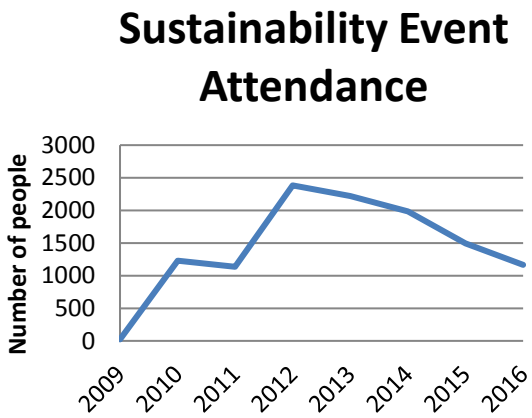
The purpose of our communications is multi-faceted:

- To encourage internal behaviour change (e.g. correct waste disposal).
- To showcase UC's sustainability performance both internally and externally ("good news stories", exemplary student initiatives, progressive research or practices at UC.)
- To promote sustainability events and connect people across campus and wider community.
- To help people see how sustainability relates to their area of work, research, study and life.

To this end we employ the following communication channels:

- Facebook: UC Sustainability Community and UC Community Gardens
- UC Sustainability Wordpress Blog
- Instagram
- Provide blogs for UC's Intercom Blog (for staff), Insider's Guide Blog (for students) and UC Facebook.
- Quarterly Mailchimp "Newsletter" with highlights and other information.

In terms of reach and impact, the UC Sustainability Community Facebook page and the contributions to Insider's Guide are the most significant channels. The UC Sustainability Page is the main page on which we post and communicate.[4]



4.2 Engagement Events and Eco Week

Community engagement about sustainability issues continues despite ongoing considerable constraints to do so. Attendance at events run by the Sustainability Office (1167) declined compared to 2015 (1495) and 2014 (1985). This declining attendance reflects the fewer number of events hosted by the Sustainability Office, rather than a lack of interest from the UC community. The Sustainability Office is offering fewer events due to its reduced capacity. On-going events, such as community garden working bees, are still well-supported.

Key community engagement initiatives for 2016 owned by the UC Sustainability Office included the Sustainability Office O-week stall, Fair Trade Fortnight, and Eco Week.

Student Fair Trade Start Up, Mallu Clothing at Fair Trade Fortnight event 2016

Eco Week consisted of a series of events which introduced students to a range of sustainability issues in engaging, informal learning environments. Events included a tour of two tiny houses built by UC students, a film about food waste, a campus tour of edible spaces and the revival of the Sustainability Awards (see appendices for a list of awardees) and nominations.

4.3 Fair Trade

Katie Nimmo, UC Sustainability Office

In response to a business case submitted by UC Sustainability Office and UC Procurement, UC Council endorsed that the University seek accreditation as a Fair Trade Campus in August 2016. This resulted in a change in the UC Procurement Policy in September. The UCSA also amended their Sustainability Policy to support accreditation. In November, it became compulsory for all UC cost centres to purchase

[4] While the fan count is higher on the Engineering and Library page, the active engagement on our page (e.g. reactions, comments & shares) regularly outperforms these. For the week writing this report, for instance, the active engagement of our page ranked highest amongst all UC departments.

Fair Trade tea and coffee and it is expected that purchase statistics will indicate a significant shift in purchasing behaviour in a short period of time. The Steering Group anticipates submitting an application to become Fair Trade accredited in the first quarter of 2017.

Fair Trade Fortnight in 2016 featured a stall including two UC student start-ups, Mallu clothing and Yellow Bird, both of which sell Fair Trade garments. Jail Breaker Coffee, supplier to the UCSA cafes was also profiled. Over 140 students attended the stall.

4.4 Community Gardens

Both UC community gardens (Dovedale and Okeover) provide a tranquil space for both staff and students, especially whilst campus is being remediated. In 2016 660kg of food was harvested from both gardens (consistent with the 666kg collected in 2015. Dovedale gardens continues to act as a satellite 'staples' garden, and provides allotments for individuals, which include UC staff, local residents, and students.

Okeover Community Garden, 2016

4.5 Sustainable Procurement

Shelley Ranson, UC Procurement

UC Procurement have been working closely with the Sustainability team to embed sustainability and social responsibility in procurement practices.

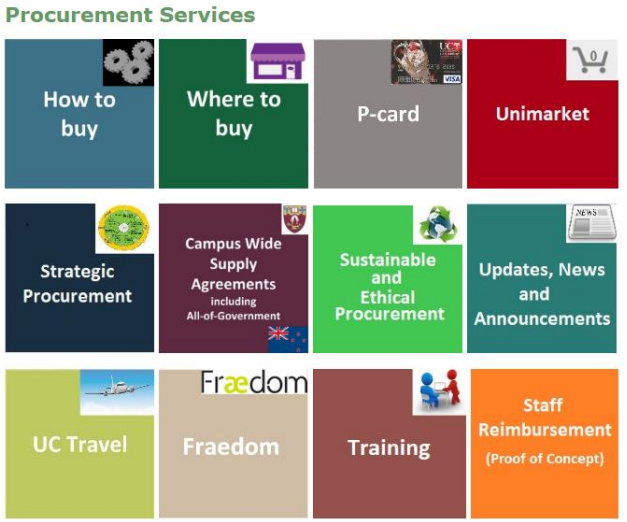
By aligning the University with innovative and environmentally responsible supply partners, we can futureproof UC's requirements and help catalyse customer demand for socially responsible products and services.

Highlights from 2016 include:

1) UC Fair Trade accreditation – collaboration between Procurement and Sustainability towards achieving accreditation in 2017

2) Examples of supply contracts with specific sustainability contract terms recently implemented;

- Waste Services – Performance targets agreed including landfill reduction and waste education initiatives for UC staff and students.
- Furniture and Flooring – Environmental industry standards for UC selected items, packaging removal by supplier and end of life re-use or recycling options
- Audio Visual equipment – Remote fault monitoring, packaging removal by supplier
- Transport Services – Preferred supplier selected on leading environmental and safety practices



3) A Sustainable and Ethical Procurement page has been created on the UC Procurement intranet. This provides guidance for consideration when purchasing, in relation to environmental or ethical impacts. https://intranet.canterbury.ac.nz/finance/procurement/sustainable_ethical_procurement/

In 2017, UC Procurement will continue to incorporate circular economy principles within contracted goods and services, one example of this will be investigation with Campus Services into the feasibility of electric vehicles and potential for on-campus applications.

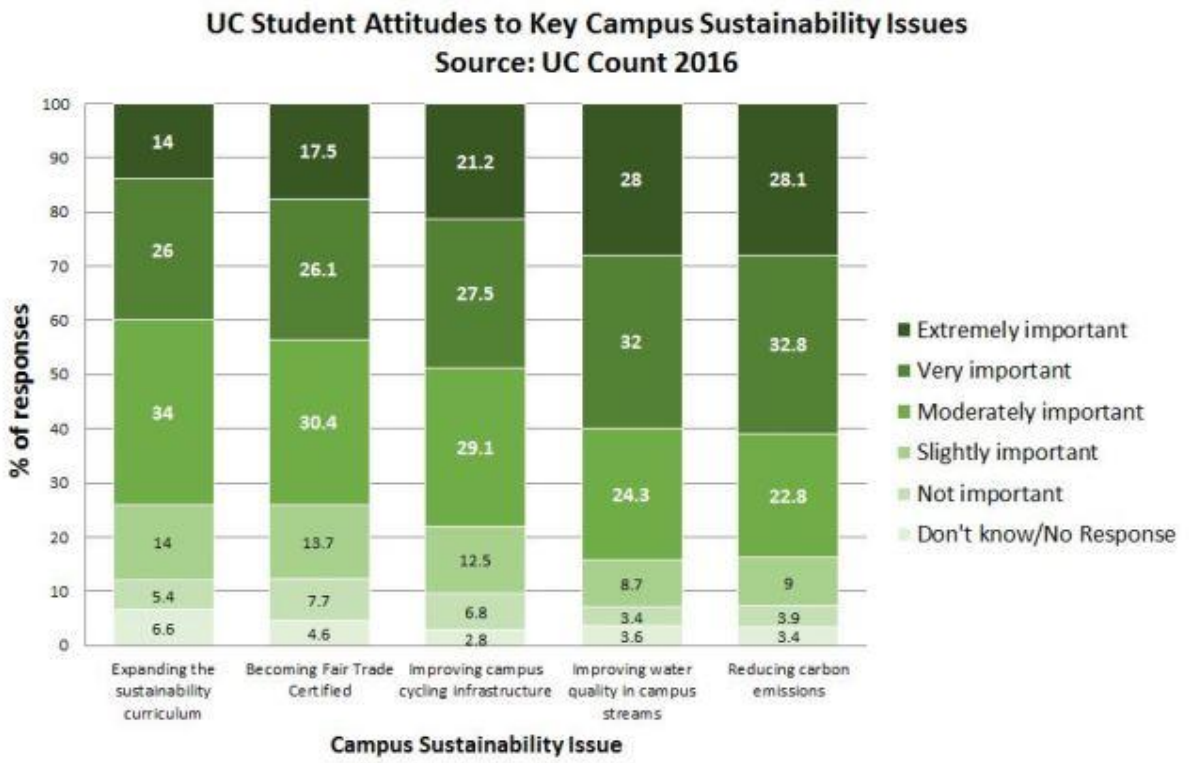
A **circular economy** is an alternative to a traditional linear **economy** (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

5 Learning, Teaching and Research

5.1 Research

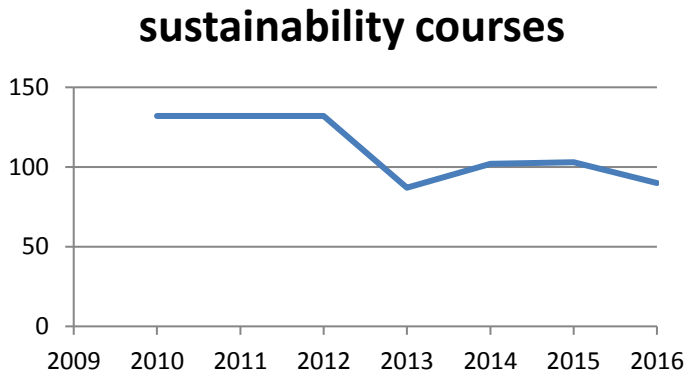
Katie Nimmo, UC Sustainability Office

UC Count is an annual survey of all students enrolled at the University of Canterbury, administered by the UC Academic Services Group. In 2016, 4344 students completed the survey. Respondents were asked to rank the importance of campus-based sustainability issues. Findings show that the majority of respondents considered sustainability issues to be significant. The top ranking operational issues were closely tied - reducing carbon emissions (61% rated this as very to extremely important), and improving water quality in the streams that flow through campus (60% at very important to extremely important). Improving on-campus cycling infrastructure was also considered a high priority at nearly 50%.



However, operational issues are only part of UC's journey towards a sustainable future. Just as important is the task of educating students about sustainability and enabling them to be proactive about these issues throughout their careers. 40% of respondents agreed that it was very or extremely important to expand the sustainability curriculum. This figure should be read alongside the 2015 result, which also asked a question about the importance of 'knowledge about sustainability practices for your future employment in the near future': 58% felt this was extremely or very important.

Overall, these statistics demonstrate clearly that students care about the future of UC itself, and what they learn whilst they are here.



5.2 Teaching and Sustainability Curriculum

The number of sustainability related courses (those courses with a focus on sustainability or ecology, but not necessarily 'environment') has declined since 2010 quite dramatically. In 2016, 90 of these courses were listed in the official calendar, although only 82 of these were actually being offered. This was significantly down from 103 courses listed in the calendar for 2015. It is worth noting that the new course, SUST 101: Resilience and Sustainability, was still not offered in 2016 (and has been removed from the calendar for 2017). The same is true for the new programme, the Endorsement in Resilience and Sustainability, of which SUST 201 was to be a cornerstone. This is a significant setback in the strategy around curriculum development.

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February 2017
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Appendix 1: UC Sustainability Indicators

Sustainability Indicator	2009	2010	2011	2012	2013	2014	2015	2016
electricity (kwh)	24,497,911	24,497,911	22,016,328	25,712,319	25,543,040	25,803,113	25,414,231	25,229,741
GHG emissions (tonnes CO_2-e)		32,392	24,318	23,145	21,419	22,590	22,870	Data not available
coal (tonnes)	5,534	6,309	4,098	5,160	4,913	5,334	4,846	4,941
water use (litres)[5]	336,526,000	250,000,000	325,000,000	392,000,000	475,000,000	No data	No data	292,875,000
waste to landfill (tonnes)		219.79	197.11	233.44	256.14	312	386.47	337.77
waste recycled or composted (tonnes)		357.39	278.36	507.44	521.42	444.70	322.54	261.17
cleaning chemicals purchased (litres)								3615
green cleaning chemicals purchased (litres)								1317
cycle stand count				2479	1715	1715	1977	2338
pages of paper purchased (A3 and A4)[6]					17,953,500	17,787,750	16,808,500	16,909,500
sustainability courses		132	132	132	87	102	103	
sustainability event attendance	23	1227	1135	2383	2221	1985	1495	1167
newsletter subscribers						416	463	490
blog views (all blogs)							2700	9160
website page views								13469 (+5%)
Facebook – UC SUSTAINABILITY COMMUNITY			305				1,428	1736
Facebook – UC COMMUNITY GARDENS			48				451	581
Facebook (combined pages)			370	640	872	1172	1879	2317

[5] This data is presented as reported in previous reports. However, as noted, it was subsequently discovered that the electronic communication of data from metres has run into technical problems. Data reporting was suspended 2014-15 and the problem has now been rectified.

[6] Data provided by Office Max as reams, then multiplied by 500 to arrive at a proxy for sheets of paper purchased.

Appendix 2: 2016 Sustainability Award Winners and Nominations

Supreme Award Winners	Alex Yip	Synthetic Leaf Project
Fairtrade Diamond Award	UC Procurement	Fair Trade Accreditation
Gold (Student)	George Moon	Eco Club Network
Gold (Staff)	Eric Pawson and Simon Kingham	GEOG 309 Community Service
Silver (Student)	Daniel Bishop	Log Cabin Project
Silver (Staff – General)	Rachel Collins	Furniture Project
Silver (Staff – Academic)	Bronwyn Hayward	International Climate Change Efforts for sustainability : Inter-governmental Panel on Climate Change
Long Service Award	Tracey Tarrant	Community Garden Long Term Volunteer
Nominations	Brad Ash	IT Recycling Service
	Catherine Woods	Admin Plus
	Fossil Free UC	Fossil Free UC
	HR Development Team	UC Temporary Vacancies (UCTV) system
	Pariya Tork	UC Bio Fun
	Simon White	Toner Take Back
	Susan Krumdieck	Climate Action: Ideas Beyond Targets