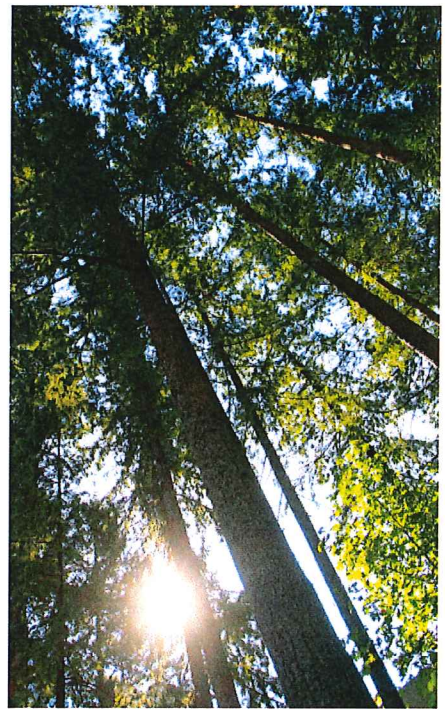


2013 Carbon Neutral Action Report



Capilano University – 2013 Carbon Neutral Action Report

This is the 2013 Carbon Neutral Action Report (CNAR) for Capilano University. This report contains our 2013 emissions profile, offsets purchased, the actions we have taken in 2013 to reduce our GHG emissions and our plans to continue reducing emissions in 2014 and beyond.

By June 30, 2014, Capilano University's final CNAR will be posted to our website at

<https://www.capilanou.ca/sustainability/Commitment/Reports/>

Executive Summary

At Capilano University, our mission is student success. We are a teaching-focused university offering a wide range of programs and services that enable students to succeed in their current studies, in their ongoing education, in their chosen careers, in their lifelong pursuit of knowledge, and in their contribution as responsible citizens in a rapidly changing and diverse global community.

Our main campus is located in North Vancouver, nestled in a lush forested environment at the base of the North Shore mountains, with our regional campuses in Squamish and Sechelt that serve the communities of Howe Sound and the Sunshine Coast.

At Capilano, we are committed to being both environmentally and socially conscious. We think of sustainability as a continual and on-going improvement process; to reduce our carbon footprint, resource usage, social inequalities and overall impact on our planet.

Our [Sustainability Policy](#), issued in 2009, outlines the University's commitments to environmental stewardship and our community.

One of the key learning outcomes we strive to instill in our students is community/global stewardship and responsibility. Our students learn about sustainability in their courses and through their involvement in campus life. Examples include:

- CapU Works – An ambitious initiative spearheaded by students, staff, and faculty from the university's Biology, English, Geography, Liberal Studies, Tourism and Outdoor Recreation programs and beyond. Through a series of lectures, films and activities, CapU Works aims to educate and inspire students and members of the campus and local community to understand complex environmental issues from a multi-disciplinary perspective enabling all to take action for positive change.
- CapU Works Organizers – In 2013, the EarthWorks team included four student organizers — Sage Birley (Garden PatchWorks), Tiaré Jung (FoodWorks), Kelly Thorson (PowerWorks) and Scott Brydle (EarthWorks) — selected for their passion and commitment to sustainability. They work together under the umbrella of CapU Works. Many of the campus projects are better served by this broad based collective.
- Campus Waste Audits – A hands-on project engaging students from a variety of faculties across campus to learn about our waste generation. Building on the success of the first waste audit in 2011, students in Environmental Geography, Outdoor Recreation, and Archaeology sort through one day of campus waste as part of an ongoing research project aimed at improving our waste management strategies at CapU. From 2011 to 2013 we have reduced our overall organics waste by 20% by implementing new strategies to divert waste into the right stream.
- Examples of Embedding Sustainability into the School of Business Curriculum – Kathryn Taft has been incorporating energy management into her BADM 466 Change Management courses since 2011, and both Carolyn Stern and Noel Genoway began similar conservation projects in 2013 with their BADM 218 Leadership in Teams classes.
- Recreation 252: Project Change –A one of a kind course designed by Capilano U's Joe Kelly to build environmental and social awareness and to empower students to become agents of positive change. For more information on Project Change, please visit the LinkBC [website](#).
- Workplace Conservation and Awareness Program – Capilano students and employees continue to adopt more sustainable behaviours, supported by our partnership with BC Hydro and its Workplace Conservation Awareness (WCA) program. In the program's third year, a number of ongoing behavioural change initiatives to reduce electricity and energy consumption across the university, including Get Ur Fleece On, the 30 Day Challenge, and the Great Light Switchout were featured.
- Student-lead social and environmental initiatives - Includes the participation in our fifth annual Five Days for the Homeless campaign, and Concert4Change, being planned throughout 2013, but taking place in early 2014.
- Campus Community Garden – Located at the north end of campus, the garden, officially opened on Earth Day 2013, provides a site for shared experience among students from different programs and a place for everyone in our community to connect. Included amongst our 62 plots are 7 designated special access plots, 18 plots for Faculty, 17 for neighbours living in Purcell Woods, and 2 childcare centre plots, which makes for a very diverse group of gardeners.

- Sustainable Transit – Participation in the UPass BC Program and Bike to Work Week to encourage the use of public transit and cycling to and from campus by employees and students.
- New Sustainability-Related Degree Programs – Throughout 2013, two new degree programs were planned and proposed: The Bachelor of Environmental Stewardship Degree and the Bachelor of Applied Global Development Degree.

Our annual conservation targets include 3% for behaviour change and 4% for technical project. In 2013 we implemented several technical projects that have contributed to this year's GHG reductions.

- DDC upgrades at Squamish and Sunshine Coast campuses completed and are outperforming project expectations. Squamish campus reduced consumption by 10,733 ekWh (0.85 tonnes of CO₂e). The Sunshine Coast a total of 57,262 ekWh, and achieved GHG reductions of 6.0 tonnes of CO₂e.
- Replacement of the Direct Digital Controls in the Birch building. The project is currently over performing, and the revised simple payback has decreased from 6.1 years to 3.7 years, a reduction of 2.4 years. As of December 29, 2013 a total of \$2,622 savings for electricity has been achieved. Our projected annual savings target is 6%, or 114,000 ekWh.
- The investigation report completed as part of the Birch Building BC Hydro C-Op program identified 11 efficiency measures. Implemented, these measures have resulted in electrical savings of 91,800 kWh, and 1,260 GJ of natural gas.
- Paper reduction - IT Services implemented Paper Cut software in September 2012 and the results are dramatic. 2013 consumption was reduced by over 920,000 sheets of paper, basically equal in one year to the savings from 2010 to 2012 combined.

Through our community efforts, we have made significant strides to decrease our greenhouse gas emissions and promote sustainability on campus. In 2013 our total GHG emissions were 1,853 tonnes of CO₂e an annual reduction of 329 tonnes. I invite you to read about our achievements to date and our future plans; and to share in the success of our journey to carbon neutrality in our campus community operations.

Cindy Turner



VP Finance & Administration

Emissions Reduction and Sustainability Activities

Actions taken to reduce greenhouse gas emissions and improve sustainability in 2013 include:

Leadership in Student Engagement

Many of our students, faculty members and employees have been working collaboratively to bring sustainability to the forefront of student life. A few examples are:

- CapU Works – An ambitious initiative spearheaded by students and employees from the university's Biology, English, Geography, Liberal Studies, Tourism and Outdoor Recreation programs and beyond. Through a series of lectures, films and activities, CapU Works aims to educate and inspire students, members of the campus and local community to understand complex environmental issues from a multi-disciplinary perspective enabling all to take action for positive change. In 2013, a sampling of events included lectures with guest speakers, documentary film screenings, the grand opening of our campus community garden, a 30 day challenge, and a campus ivy pull. For more information and to view the schedule of events, please visit the [Works page](#) on the Capilano U website.
- CapU Works Organizers – In 2013, the EarthWorks team expanded and rebranded to CapU Works, embracing four student organizers. Sage Birley, Tiaré Jung, Kelly Thorson and Scott Brydle have been working on sustainability initiatives on campus throughout the year.



In addition to attending monthly team meetings and building community engagement, these student organizers acted as catalysts bringing energy, support for the team, and the vision to challenge the series to grow into a rallying point of knowledge and action. They sought to engage other students within the campus and external community. The organizers were also encouraged to network with environmental organizations, arts-based organizations, performance artists, policy makers, and leaders and experts in sustainable change-making to bring a richness of views and opinions to the series. Throughout 2013, this group planned and delivered events that educated and inspired.



- EarthWorks Organizer: Scott Brydle – In 2013, Scott helped plan EarthLive events; lunchtime discussion sessions, student training/workshops, sustainability socials, potlucks, and film screenings. Scott also liaised between the EarthWorks Team, CSU Environmental Issues Committee, and other sustainability 'works' and groups to connect EarthLive themes with opportunities for engagement/action. Scott also helped secure guest speakers, facilitators, and activity leaders connected to existing projects or campaigns related to the EarthWorks lecture theme, and recruited student volunteers to poster, use social media, set up, take pictures, film, and attend events.

This past fall, Scott created an obstacle course; a scale model of the tanker route proposed by Enbridge in and around Kitimat. This event was a great success, demonstrating the difficulties of navigating a narrow inlet, and illustrating the risks of an oil spill on our fragile coastal ecosystem. Due to the success, he will be running this event again in April 2014 as well!

- FoodWorks Organizer: Tiaré Jung – Since April 2012, , as part of the National Campus Food Systems Project Capilano students have been identifying opportunities for food systems change. In 2013, Tiaré supported students to bring local and seasonal food to campus events and community garden workshops. Food trucks were also approached for special events. Five key food values were crafted to capture key concerns of campus community members:

- Nourishment & sustenance
- Community engagement & Evidence based decision making
- Effective resource management
- Connection to the regional food resources and ecosystem
- Learn and make evidence based decisions



- Garden PatchWorks Organizer: Sage Birley – In collaboration with Projects in Place, Capilano University opened its first ever community garden on Earth Day in 2013. Located at the north end of the North Vancouver campus, the garden provides a site for shared experience among students from different programs and a place for everyone in our community to connect.

Features include a traditional First Nations garden, a learning garden for the youngsters in the Children's Centre, a produce stand to share our harvest, and communal areas for teaching and play. The community garden also includes an outdoor classroom for use by instructors. Sage helped to organize workshops, invasive species and weed pulls, and made sure things were running smoothly in the garden for students, staff, faculty, and community members who held plots.

He spent a large part of the Fall 2013 term planning and organizing a large event for the Spring 2014 term, called Ode to Spring. This celebration, taking place in the community garden on the first day of Spring, will bring together various groups across campus, and recognize artists and musicians from Capilano by providing a stage on which to display their work and perform for the attendees.



- PowerWorks Organizer: Kelly Thorson – Through funding provided by BC Hydro's Workplace Conservation and Awareness program, Kelly was our PowerWorks student organizer for 2013. One of her main goals was to embed energy conservation into the curriculum in order to help students become energy conservation ambassadors at Capilano U and in their future careers.

In the Fall of 2013, Kelly spent her time planning and organizing a variety of energy saving campaigns for the Spring of 2014, including getting the campus to participate in the WWF's National Sweater Day (February 6, 2014), in recognition of dressing appropriately for the weather to avoid turning up the thermostat and wasting energy. She has also planned a pre-Earth Hour event to be held on March 28th, 2014, called 'Starry, Starry Afternoon', which will highlight constellations that will be in the sky during official Earth Hour, on March 29th at 8:30 pm.



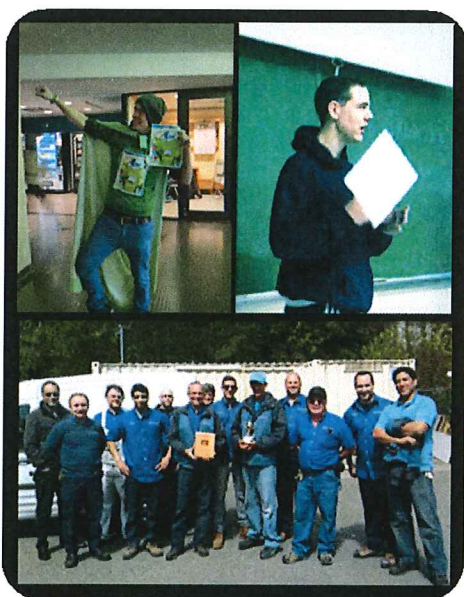
- Campus Waste Audits – A hands-on project engaging students from a variety of faculties across campus to learn about our waste generation. First started in 2011, students in Environmental Geography, Outdoor Recreation, and Archaeology sort through one day of campus waste as part of an ongoing research project aimed at improving our waste management strategies at CapU and raising consciousness.



As a result of these audits, we have significantly reduced the amount of waste sent to landfill. At the beginning of our research, our landfill waste was composed of 60 per cent organics. We've reduced that to 40 per cent in 2013. Virtually 100 per cent of our paper towel waste on the North Vancouver campus is now diverted to composting.

One student remarked, "I learned a lot about how much we waste and it definitely made me want to be more careful with what I throw away. It was beneficial for not just me, but everyone I did it with."

- Individual courses – In the School of Business, Kathryn Taft has been incorporating energy management into her BADM 466 Change Management courses. Building on work done in BADM Fall of 2012 where students applied their skills to monitor behaviour in five select computer labs and develop proposals to encourage lasting changes. In the Spring of 2013, two BADM 466 classes implemented those recommendations in 10 labs using behaviour-change techniques. The aim was to encourage users to turn off their monitors at the end of their session and shut down their computers at the end of the day. Throughout the project, the student teams gathered data on the effectiveness of their approach and made recommendations to IT Services and Facilities for broader future implementation.



For two weeks in March 2013, BADM 218 had six teams competing to save the most energy in their assigned buildings as part of the Battle of the Buildings. This was the first time that the engagement initiatives were led by students, bringing the competition to an entirely new level. Each team was responsible for designing and implementing an engagement strategy that included creative materials, presentations, and interactive outreach activities.

One team took this a step further by allocating participation points: every person to "like" their Facebook page, or sign their pledge to be a "Green Hero," was entered into a draw for a restaurant gift card. One of the students in the group even donned a green cape and transformed himself into the Green Hero to collect signatures (see far left).

In Noel Genoway's Fall 2013 BADM 218 Leadership in Teams class, their assignment was to use their team leadership knowledge, skills and strengths to work together to positively contribute to Capilano University's progress towards zero waste. The results were impressive, and some of their best ideas were implemented across our campus to make it easier to sort waste, and reduce our campus waste overall.

- Recreation 252: Project Change – In this unique course, spear-headed at Capilano U by Joe Kelly, students were tasked with planning and carrying out a social or environmental stewardship project that positively impacted upon their community. Project results were required to be specific and measurable and viability needed to be proven, even in the non-profit sector. As a result, [Project Change](#) students measured the tangible differences their projects made in the community. Some of the years' accomplishments are as follows:

- 21 projects were submitted
- 110 + students participated in the challenge
- 6 schools represented: BCIT (with colleagues from Amsterdam), Capilano University, Douglas College, North Island College, Selkirk College, and Vancouver Island University
- Over \$23,000 was raised for community projects (bike helmets for kids, community centre in Viet Nam)
- Over 15,000 items were donated (clothing, personal hygiene products, school supplies) to people in need
- 200 lbs of batteries, 100s of lbs of compost taken out of the waste stream
- Multiple media engagements (traditional and social media) educating peers and the general population on a number of issues



Our Community

Capilano students and employees continued to adopt more sustainable behaviours in 2013, thanks in large part to our partnership with BC Hydro and its Workplace Conservation Awareness (WCA) program. In the program's third year, a number of behavioural change initiatives were implemented once again to reduce electricity and energy consumption across the university, including:

- GET UR FLEECE ON campaign – In partnership with BC Hydro and FortisBC, interested employees were provided with a fleece blanket (made of 100% recycled material) to encourage energy conservation by dressing warmly during winter months and using the blanket while working. As of Dec. 31, 2013 a total of 245 blankets had been distributed in total.



- 30 Day Challenge – In the Fall of 2013, the Capilano University community was asked to adopt one sustainability activity for a 30-day period, resulting in 194 students, staff and faculty at our North Vancouver and Squamish campuses rising to the challenge. Challenges ranged from packing a re-usable mug and taking shorter showers, to riding a bike to campus every day and powering down computers when not in use. All of the participants stuck with it, and are now living a little bit more sustainably as a result.



- The Great Light Switch-out - Employees were provided with a free 8W or 12W LED bulb to replace their inefficient desk lighting, in order to recognize the significant energy savings and longer life of the LED replacement. Since the program began at Capilano in 2012, almost 90 efficient bulbs have been distributed.





A new blog was launched by the university in 2013 called 'Your Daily Cap' which includes a dedicated section for sustainability. All members of the campus community contribute stories and comments, with new stories added every day. We use this fabulous resource to reach a varied audience to promote our student-led events and get the word out about initiatives taking place at Capilano. In addition to the blog, our overall communications have improved drastically throughout 2013, with new communications plans being introduced, ensuring we reach as many people on and off campus as possible.

Capilano U participated in Bike to Work Week, a Lower Mainland initiative that encourages the campus community to cycle to and from the university in order to reduce greenhouse gas emissions. In 2013, the Cap U team was able to save 34.63 kgs of CO₂ by choosing a healthier alternative to driving an automobile or taking the bus. Since 2010, Capilano's participation in Bike to Work Week has resulted in the total savings of 455.19 kgs of CO₂.

Capilano participated in Five Days for the Homeless for the fifth consecutive year between March 11th and 15th, 2013. This campaign raised funds and awareness for homelessness and housing insecurity on campus by hosting a variety of activities each day throughout the week.

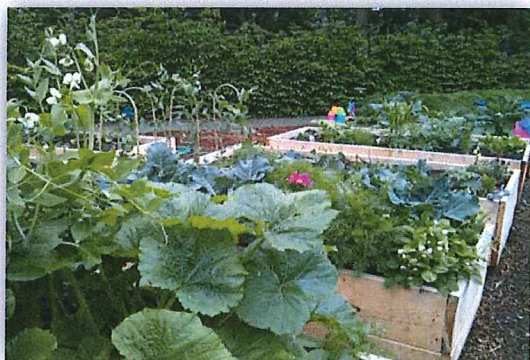


Since 2010 Capilano has reduced its paper purchases by 1,875,000 sheets. Everyone, Administration, Exempt, Faculty and Staff have contributed to this success. Department, Areas and individually we have all worked to reduce paper consumption. To support reduction efforts, IT Services implemented Paper Cut software in September 2012 and the results are dramatic. 2013 consumption was reduced by over 920,000 sheets of paper, basically equal in one year to the savings from 2010 to 2012 combined.

Our Built Environment

We are continuously seeking ways to improve the energy efficiency of our infrastructure, which accounts for the majority of our carbon emissions. A few of our 2013 projects include:

- Campus Community Garden – On Earth Day 2013, Capilano University opened its first ever community garden. Located at the north end of campus, the garden provides a site for shared experience among students from different programs and a place for everyone in our community to connect.

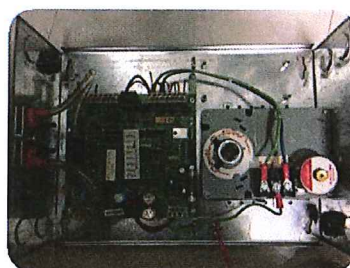


Faculty, staff, students and neighbours pitched in to construct the garden, built in partnership with Projects in Place and Houston Landscapes. Features include a traditional First Nations garden, a 'learning garden' for the youngsters in the Children's Centre, an outdoor classroom and social space, a hydroponics display, a scent garden, and communal herbs and edible flowers. Throughout 2013, we have installed rain barrels as well, providing the gardeners constant access to fresh water.

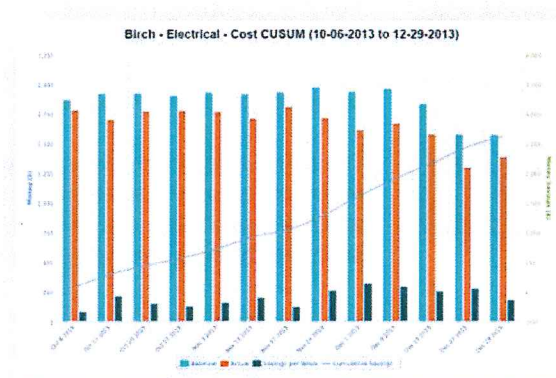
Our new Garden PatchWorks student organizer helped organize informative workshops, arranges invasive species and weed pulls, and made sure things ran smoothly in the garden for students, staff, faculty, and community members who hold plots.

There are 55 'regular' plots and 7 'special access' plots for use by the campus community at large (students, faculty, staff, administration, departments/areas, alumni, and our neighbours in the adjoining townhomes). All plots were assigned in 2013, with a waitlist growing for the 2014 season. Feedback has been overwhelmingly positive, as we have been able to bridge the gap between our neighbours and campus community, and establish strong connections and relationships.

- Building Operations and Energy Performance - By December 31 2012, Capilano had reduced its energy consumption by 23.5%, just missing the original target set in 2007 for a 25% reduction by 2012. New reduction targets have been established for 2013 – 4% with a stretch goals of 7% for 2014, and 2015. In 2013 Capilano achieved a reduction of 4.5%, resulting in total natural gas and electrical savings of 28% since 2007.
- Since 2007, Capilano University has reduced its Building Energy Performance Index (BEPI) from 419 ekWh/M² to 303 ekWh/M²; A total reduction of 116 ekWh/M². This reduction demonstrates quantifiably Capilano University's progress towards more sustainable building operations and campus.
- The University's monthly energy intensity has been reduced from a high of 53.40 in January 2007 to a low of 41.99 in January 2013. The average monthly energy intensity for 2013 was 25.31, a reduction of 9.61 since 2007, when the monthly intensity was 34.92.
- In 2013 the DDC upgrades at Squamish and Sunshine Coast campuses were completed. Both campuses are outperforming the project expectations in overall energy consumption reduction. As of December 31, 2013 the Squamish campus had reduced consumption by 10,733 ekWh and the Sunshine Coast a total of 57,262 ekWh, and achieved GHG reductions of 0.85 tonnes of CO₂e for Squamish and 6.0 tonnes of CO₂e for the Sunshine Coast.



- In 2013 we began replacement of the Direct Digital Controls in the Birch building. The project is currently over performing, and the revised simple payback has decreased from 6.1 years to 3.7 years, a reduction of 2.4 years. As of December 29, 2013 a total of \$2,622 savings for electricity has been achieved. Our projected annual savings target is 6%, or 114,000 ekWh.
- The investigation report completed as part of the Birch Building BC Hydro C-Op program identified 11 efficiency measures. These measures have resulted in electrical savings of 91,800 kWh, and 1,260 GJ of natural gas. Key measures adopted include:
 - A supply air pressure reset sequence added to the control sequence of AHU-1 and AHU-2
 - A weather predictor algorithm implemented to lock out heating systems when the predicted high temperature will be warmer than 20°C (adjustable).



- Energy cost savings since 2007 total \$765,141 (\$692,761 natural gas and \$72,379 electricity). The costs avoided by becoming more efficient have allowed the Facilities department to implement additional energy savings projects.
- We have promoted the use of electric vehicles by installing two dual-head electric vehicle charging stations at the North Vancouver campus in 2013. Throughout 2013, there were 60 sessions that together totaled 291.492 kWh used, saving 122 kg of greenhouse gas. We will continue to monitor the usage of these stations and increase the number of stations if demand increases.



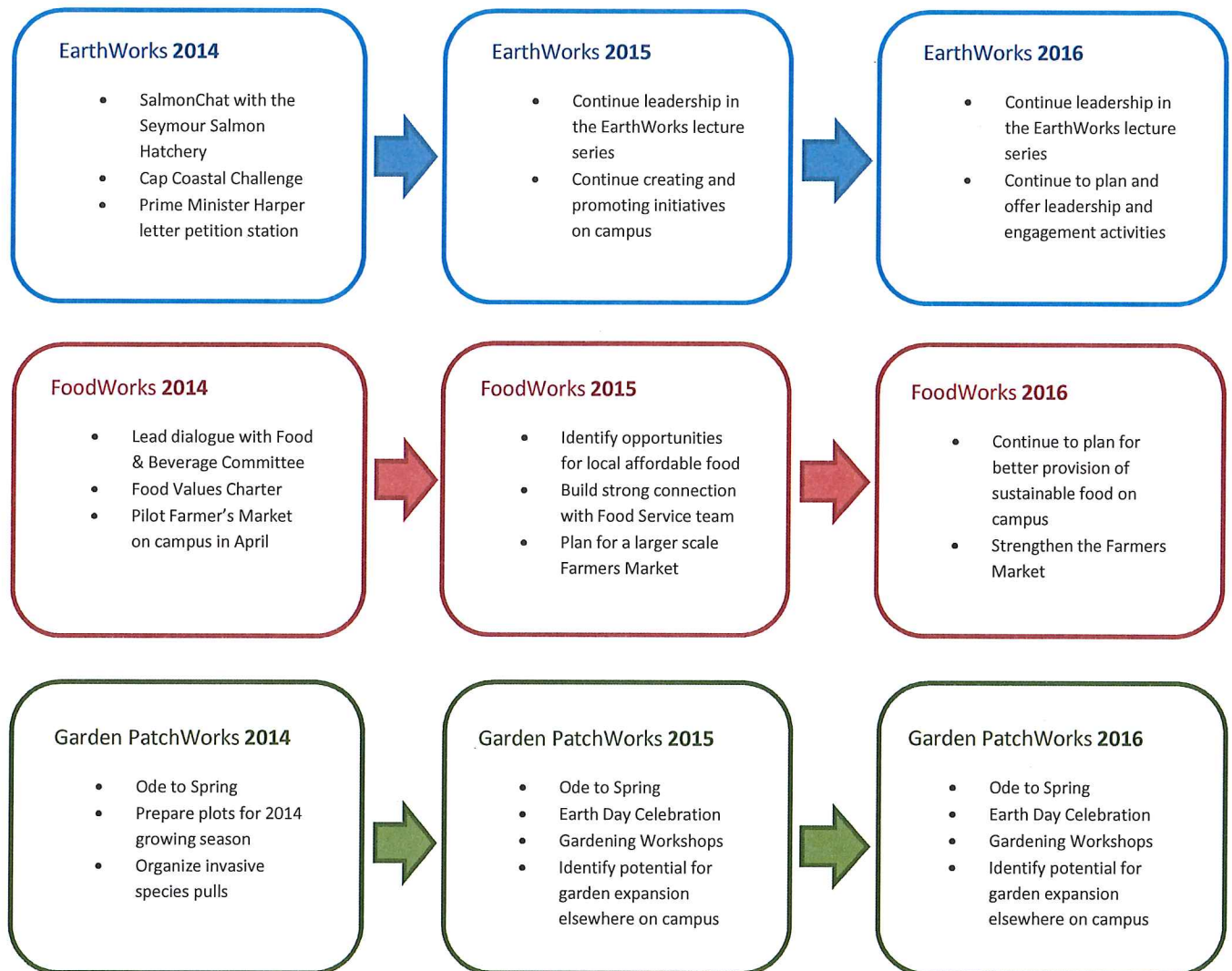
- Exceptions Note:
The Scuba Diving space (Sechelt) is currently not included in SMARTTool buildings consumption reporting. It has been excluded under the '1% Rule' allowed in the 2012 Best Practices Methodology for Quantifying Greenhouse Gas Emissions from the Climate Action Secretariat.

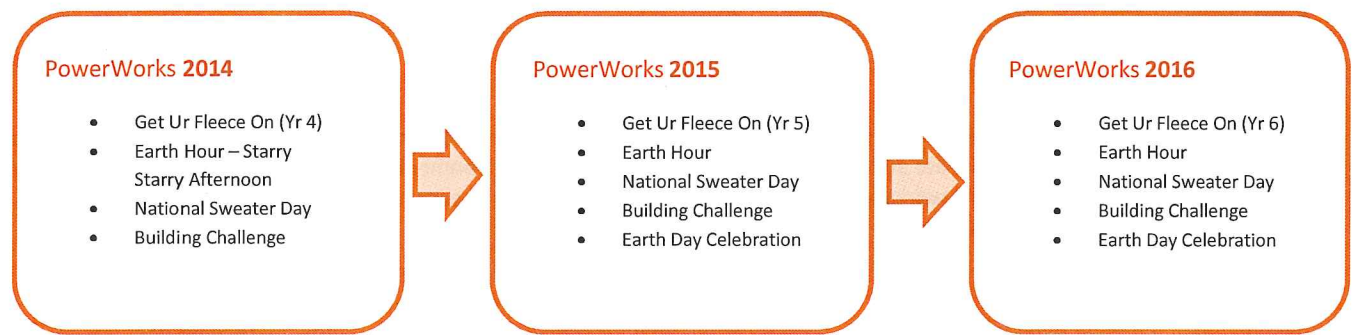
Plans to Continue Reducing Greenhouse Gas Emissions and Improve Sustainability 2014-2016

A few highlights from our upcoming plans include:

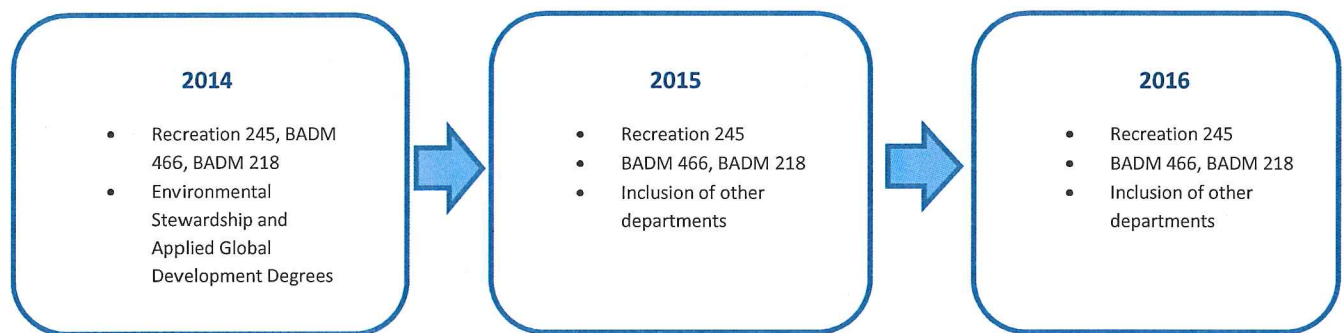
Leadership in student engagement

- CapU Works – a continuation and strengthening of this multi-disciplinary group of students, staff, and faculty will continue to deliver events that educate and inspire. We will continue to host environmentally related guest speakers, hold invasive plant pulls, lead gardening workshops in the community garden, design energy conservation initiatives, and discuss affordable, local food on campus.
- CapU Works Organizers:





Embedding Sustainability into Course Curriculum



Campus Waste Audits



Our community: 2014-2016

- Continued engagement and building of bridges with campus neighbours through the community garden.



- We will continue to update the 'Your Daily Cap' blog and websites as frequently as possible to share information on student-led events and initiatives taking place on campus.

- Continued participation in the WCA program, leading behavioural changing activities on campus.

- We will be hosting a Professional Development Day workshop in May 2014, beginning with an introduction to invasive species and how to properly apply pesticides in appropriate circumstances, with plans to increase the number and frequency of workshops that Capilano hosts.

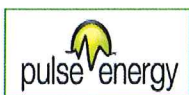


- We will continue to participate in the U-Pass BC program, encouraging students to take public transit to get to and from campus, helping reduce greenhouse gas emissions.

- Cap U will continue participating Bike to Work Week, with the 2014 event taking place from May 26th to June 1st. We aim to improve on our results from the past three years, and compete against other post-secondary institutions to save the most greenhouse gas emissions overall.

- For the Spring 2014 term, we will have BADM 218 student teams once again working on the Building Challenge. The goal is to raise awareness of energy conservation, take action and create a community of change agents that take responsibility for personal and collective electricity consumption across all buildings through behavior change initiatives on and off Capilano's campuses.
- Recreation 245 will be revisiting the Zero Waste initiative, with their projects beginning in the Spring of 2014. Their assignment is to work in teams to contribute to Capilano University's progress toward zero waste. These projects include promoting the use of re-usable mugs, water bottles, plates and utensils, creating zero waste stations, educating the campus community on how to properly sort waste, and then reporting on their findings.
- The Capilano Students' Union is presenting the first-ever Concert 4 Change in January 2014 – showcasing musicians, speakers and local food and beverages, in support of social and environmental sustainability.
- In 2014, initial approval was given to offer both arts and science Bachelor of Environmental Stewardship Degrees. Under development throughout 2014 as well will be the Bachelor of Applied Global Development Studies.

Our built environment: 2014 -2016



- We will continue to use Pulse Energy's real-time metering to identify and resolve issues of overly high consumption and to engage occupants around energy conservation.

- Our strategic energy management plan (SEMP) includes a total potential savings of 378,666 ekWh savings (61,722 kWh electrical and 316,944 ekWhs natural gas) for projects to be completed by October 31 2014. Projects with an additional savings of 1,567,191 ekWhs (519,997 kWh electrical and 1,047,194 ekWh natural gas) have been identified as for 2014-2016, pending budget approval for implementation. Projects range from lighting retrofits, DHW and Boiler retrofits, along with the student and employee engagement activities that reinforce and leverage for additional savings each technical project.
- In 2014, we will complete our 6th year of energy manager funding from BC Hydro. We hope to renew this funding for an additional year commencing October 2014. This invaluable program has enabled Capilano University to track with meeting the mandated energy consumption reduction of 33% by 2015. Something the University may not have been able to do with the support of BC Hydro and FortisBC.

- 2014/15 (pending approval of 2014/15 budget) the replacement of the Direct Digital Controls (DDC) in the Library building will be implemented. In 2013/14 the end of life and obsolete DDC system in the Birch building was replaced. The Birch building DDC project is currently tracking at double the energy savings than forecast. We anticipate similar results with the replacement in the Library building.
- We will continue to assess the number of electric vehicle charging stations and increase as needed/able. We plan to continue promoting sustainability transportation to and from our institution.
- We will continue to add plots and other necessary infrastructure to support the continuation of a strong, vibrant, and connected gardening community. We will continue to host events in the garden, such as Ode to Spring, plot holder work days, and composting and gardening workshops, ensuring everyone has an equal opportunity to participate.

Emissions and Offsets Summary:

Capilano University's GHG Emissions and Offsets for 2013 (TCO2E)	
GHG Emissions created in calendar year 2013 (from SMARTTool Homepage)	
Total Emissions	1,853
Total Emissions for Offsets	1,850
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions	16
Total Emissions for Offsets	16
Credit owing from PCT at end of 2012 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	1948
Total Emissions for Offsets for the 2013 Reporting Year (from Offset Invoice):	82

Signature

C.A. (Cindy) Turner

Name (please print)

JUN 18 2014

Date

VP, Finance & Administration

Title

2013 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Created Tuesday, April 08, 2014

Updated Friday, May 30, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/a39f9ba70880ffa9816303e389712ea4/>

Page 1

Please complete the following sections of the 2013 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page.

This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2013 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website.

When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work.

In addition to completing this survey (Part 1 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2013 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community.

Please ensure you meet the following reporting deadlines:

A DRAFT 2013 CNAR is due to CAS by March 31, 2014. The draft is comprised of the Overview ONLY (no executive sign-off required).

The FINAL 2013 CNAR is due to CAS by May 30, 2014. The final 2013 CNAR includes Part 1 Part 2 survey form and Overview.

The Self-Certification Checklist is due to CAS by May 15, 2014.

For more information about the Carbon Neutral Government process, please refer to *Becoming Carbon Neutral 2013*, or should you have any questions please contact climateactionsecretariat@gov.bc.ca.

Page 2

Organization Name

Capilano University

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings):

Indicate which actions were taken in 2013:

Performed energy retrofits on existing buildings

Yes

Built or are building new LEED Gold or other "Green" buildings.

No

Undertook an evaluation of overall building energy use.

Yes

Please list any other actions taken to reduce emissions from Buildings:

Campus Engagement

- Building Challenge*
- Great Light Switch Out*
- Get UR Fleece On*

Technical Projects

- Implementation of C-Op recommendations (DDC replacement, etc.) in Birch Bldg*
- Retrofit for exterior lighting at the North Vancouver campus*
- Retrofit and upgrade to the Sunshine Coast Direct Digital Controls (DDC)*
- Retrofit and upgrade to the Squamish Campus Direct Digital Controls (DDC)*

2) Mobile Fleet Combustion (Fleet and other vehicles):

Indicate which actions were taken in 2013:

Do you have a fleet?

Yes

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

No

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

Yes

Please list any other actions taken to reduce emission from fleet:

In 2013, Capilano University participated in Bike to Work Week. In total, each trip averaged 9.04 km for a total of 171.79 km overall. We were able to save 34.63 kgs of carbon dioxide for the week. Since Capilano University's participation began in 2010, we have saved 455.19 kgs of carbon dioxide!

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

Yes

Used alternate source paper (Bamboo, hemp, etc.)

Please list any other actions taken to reduce emissions from paper use:

Since 2010 Capilano has reduced its paper purchases by 1,875,000 sheets. Everyone, Administration, Exempt, Faculty and Staff have contributed to this success. Department, Areas and individually we have all worked to reduce paper consumption. To support reduction efforts, IT Services implemented Paper Cut software in September 2012 and the results are dramatic. 2013 consumption was reduced by over 920,000 sheets of paper, basically equal in one year to the savings from 2010 to 2012 combined.

Actions Taken to Reduce Emissions - continued

Explain how you plan to continue minimizing emissions in 2014 and future years:

Technical: Capilano has a strategic energy management plan (SEMP) we identify, build business cases and implement projects in alignment with the funding we receive. Our SEMP includes a commitment to reduce our energy annually by 4% technical and 3% behavioural for 2014 and 2015. These are aggressive targets, but ones that will enable us to achieve and surpass the provincial mandate of 33% reduction by 2015.

Our project list includes implementation of electrical and natural gas savings projects identified in the formal investigations reports compiled as part of our participation in the BC Hydro C-Op Program. Currently 4 of the 5 largest (over 50,000 sq ft) buildings are enrolled in this program. Projects identified for 2014 and beyond include: DDC replacements in Fir, Cedar and the Library buildings, lighting retrofits, VFD drives, DHW retrofits and demand control ventilation.

Behavioural:

Each year, we improve our student and Workplace Conservation Awareness campaigns and the events we host. As a result, we have increased numbers of participation. We continue to hold engaging energy conservation awareness campaigns with the expectation the campaigns will contribute to a reduction of 3% of our total annual consumption, in addition to inspiring our campus community to become more sustainability minded.

We have started a domino effect of positive change at Capilano by spearheading conservation initiatives with the CapU Works team. Our activities have changed the 'norm' and expectations on campus and help make it easy for people to adopt a lifestyle with a smaller carbon footprint.

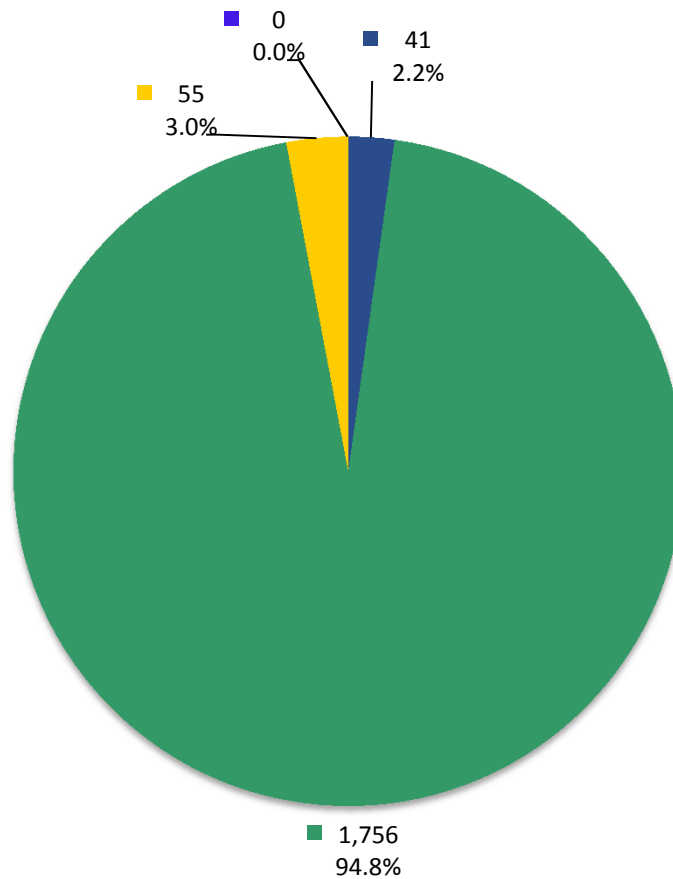
We will continue to include students in conservation projects, and embed sustainability into the curriculum, as both help us meet the needs of the entire campus community, while saving money, energy, and resources. Project topics will include ghg reductions through; computer desktop shutdown management, paper savings, turn-out-the lights. Pending budget approval, Capilano will purchase its first electrical vehicle in 2014.

Our innovative approach demonstrates leadership within post-secondary influencing other institutions, organizations, companies etc. to get on board.

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No

Capilano University Greenhouse Gas Emissions by Source for the 2013 Calendar Year (tCO₂e*)



Total Emissions: 1,853

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)
- Fugitive Sources

Offsets Applied to Become Carbon Neutral in 2013 (Generated May 21, 2014 2:32 PM)

Total offsets required: **1,850**. Total offset investment: **\$46,250**. Emissions which do not require offsets: **2** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.