



University  
of Victoria

## **FINAL REPORT**

# **SUSTAINABILITY ACTION PLAN: CAMPUS OPERATIONS 2009 - 2014**



## **EXECUTIVE SUMMARY**

In 2008, the Sustainability Action Plan: Campus Operations 2009 – 2014 was prepared to guide the university's path toward sustainability in its operations, in conjunction with extensive consultation with students, staff and faculty, as well as community members. Over the last five years, Plan implementation has been coordinated through the Office of Campus Planning and Sustainability, with ongoing close collaboration between all of the operational departments at UVic.

Along with the 2009 – 2011 progress report on the plan, more recent reporting on sustainability has included a submission in January 2014 to the Sustainability Tracking, Assessment and Rating System (STARS) administered by the Association for the Advancement of Sustainability in Higher Education (AASHE) and the achievement of a Gold level rating.

Attention in reviewing the Action Plan was given to the progress achieved in attaining the 46 goal statements in the different topic areas of the plan:

1. Energy and Climate (5)
2. Transportation (6)
3. Purchasing (5)
4. Governance, Decision-making and Sustainability Resources (6)
5. Buildings and Renovations (5)
6. Grounds, Food and Urban Agriculture (10)
7. Waste Management (5)
8. Water Management (4)

The reporting framework indicates that 26 goals have been achieved, 13 are in progress and 7 which were not achieved for various reasons will be reassessed as part of the process to renew the plan. The review also highlighted the variety of goals in the plan and the measurement parameters that range from the achievement of specific actions through to broad outcomes with longer timelines and resource allocation implications.

The Final Report provides more detailed information on the various activities which have contributed to the assessment of progress relative to each of the plan goals. In total, plan implementation measures between 2009 and 2014 have resulted in significant changes that have advanced sustainability in campus operations.

The new Action Plan will address updated directions for those goals that are in progress and for those that have not been achieved. Ideas and input generated from the campus community as part of the plan renewal process will also assist in developing the new plan.

## **BACKGROUND – HOW WE GOT HERE**

In 2008 the University of Victoria (UVic) embarked on an ambitious campus and community consultation process to create a plan with a set of goals and actions related to how the university could pursue sustainability in its operations. The result was the *Sustainability Action Plan: Campus Operations, 2009-2014* (SAP), approved by the Board of Governors in March 2009. At the same time, the university also adopted a Sustainability Policy framework. Both documents are available at: <https://www.uvic.ca/sustainability/operations/publications/index.php>.

The SAP is organized around eight operational areas (energy & climate, transportation, purchasing, governance, buildings, grounds/food/urban agriculture, waste management and water management), each one with clearly defined goals and suggested actions necessary to achieve those goals. The SAP also includes six foundational goals (the creation of a communications strategy, a revolving sustainability fund, an advisory committee, sustainability action teams, an awards program and indicator reporting) determined to be necessary to support the overall creation of a culture of sustainability in operations at the university.

The implementation of the SAP has been coordinated through the Office of Campus Planning and Sustainability (OCPS), with extensive collaboration between all of the operational departments at UVic including Facilities Management, Parking and Transportation Services, Food Services and Purchasing Services. The OCPS also collaborates with student groups and other departments not directly associated with operations.

In early 2011 the OCPS published an interim *Progress Report on the Sustainability Action: Campus Operations, 2009-2014 – Sustainability Highlights 2009-2011*. This document is a report on progress made to achieve the goals and actions from the SAP in the first half of its term. It concludes with an outline of the path forward to continue the pursuit of sustainability in the operations of the university, including more detailed indicator reporting and the pursuit of a sustainability ranking under the Sustainability Tracking, Assessment and Rating System (STARS) developed by the Association for the Advancement of Sustainability in Higher Education (AASHE).

## **INTRODUCTION – WHERE WE STAND NOW**

Sustainability continues to be a strategic focus of the university. In the 2012 UVic Strategic Plan, Objective 35 states: To demonstrate leadership in sustainability through the continued development and implementation of innovative operational practices and their integration with institutional planning activities. Key strategies outlined are:

1. Develop, implement and enhance the ecological sustainability initiatives set out in the *Sustainability Action Plan*, further boosting UVic's leadership in transportation demand management, energy management, lifecycle costing and environmental stewardship.
2. Develop tools to measure sustainability performance in all our activities.
3. Design and operate campus systems in a manner that allows for the integration of academic, teaching and research activities as appropriate.
4. Promote the use of LEED (Leadership in Energy and Environmental Design) or similar green building standards in the construction of new facilities.

At UVic we see sustainability as a shared responsibility. The many achievements of the past five years listed in this report are the result of staff, students, faculty and the community working together around the many common goals created to lighten the environmental footprint of our campus. They have also helped establish UVic as a role model of sustainability for students, staff and faculty, in our community and amongst our peers.

Together over the past five years we have learned much and enhanced the integration of sustainability values throughout UVic’s operations, teaching, research and governance structures. As this report indicates, we have a lot to be proud of, but still have much to learn and accomplish.

### **STARS Gold Rating**

In early 2014, UVic achieved a Gold rating in the Sustainability, Tracking, Assessment and Rating System (STARS) from the Association for the Advancement of Sustainability in Higher Education, AASHE ([www.aashe.org](http://www.aashe.org)). STARS is an independent, standardized framework developed to assess the overall sustainability of a post-secondary institution in its operations, teaching, research, planning, administration, engagement and investments. At the time, UVic was only the fifth university in Canada to achieve a STARS Gold rating – another indication of our shared success in promoting sustainability throughout the institution.

### **PROGRESS ON KEY GOALS – HOW HAVE WE DONE?**

Indicators for each of the goal areas listed below are classified according one of the following categories along with details of how the status was determined:

<b>Achieved</b>	The goal was achieved (within 10% where the goal is a quantifiable number).
<b>In Progress</b>	The goal has not yet been met, but significant progress has been made and the goal is still actively being pursued.
<b>Not Achieved</b>	The goal has not been achieved as of the end of the 2013/14 fiscal year and it will be reassessed, in conjunction with the renewal of the Action Plan.

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## **1.0 Energy and Climate**

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***Vision: A campus that utilizes renewable energy sources for all of its energy needs.***

**Goal 1.1: Become carbon neutral by 2010**

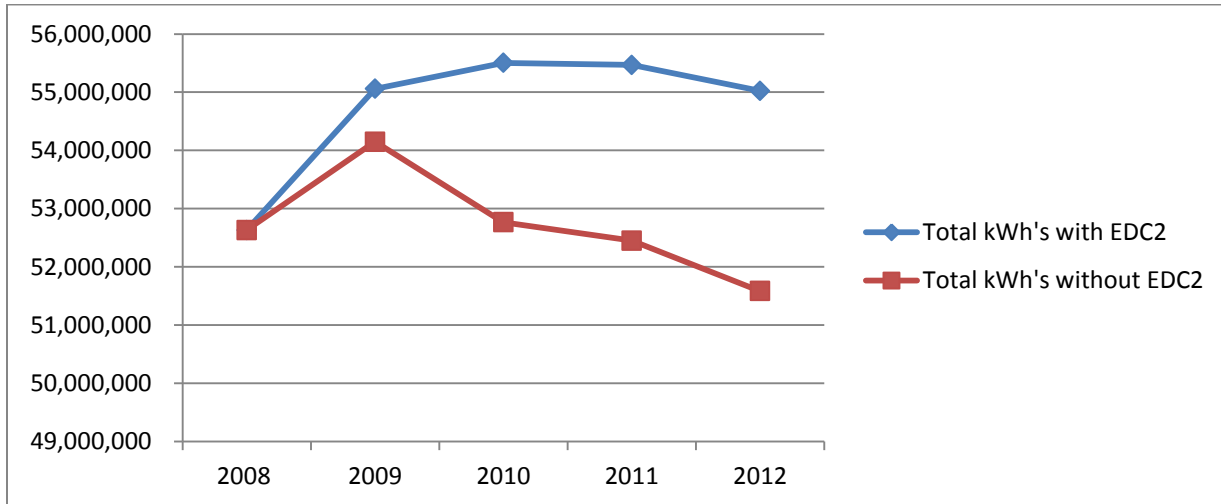
**Status:** *Achieved*

UVic officially became “carbon neutral” at the end of 2010 as part of the Province of British Columbia’s carbon neutral government strategy which includes performing an annual greenhouse gas inventory to measure campus emissions, reducing energy use where possible, and purchasing carbon offsets for the remaining emissions. The province also requires that UVic produce an annual Carbon Neutral Action Report to report on actions taken to reduce emissions. These annual reports are available online at: [www.uvic.ca/sustainability/operations/energy/index.php](http://www.uvic.ca/sustainability/operations/energy/index.php).

**Goal 1.2: Reduce campus electricity consumption by 20% by 2015**

**Status:** *In Progress*

Between 2008 and 2012, overall campus<sup>1</sup> electricity consumption increased by 4.5%, however there was a reduction of approximately 1% between 2010 and 2012, with a continuing downward trend for 2013. In addition, when the energy consumption data for the Enterprise Data Centre (EDC2), which currently consumes over 6% of total campus electricity use, is excluded, the total consumption went down by just over 2%. See Chart 1 below.



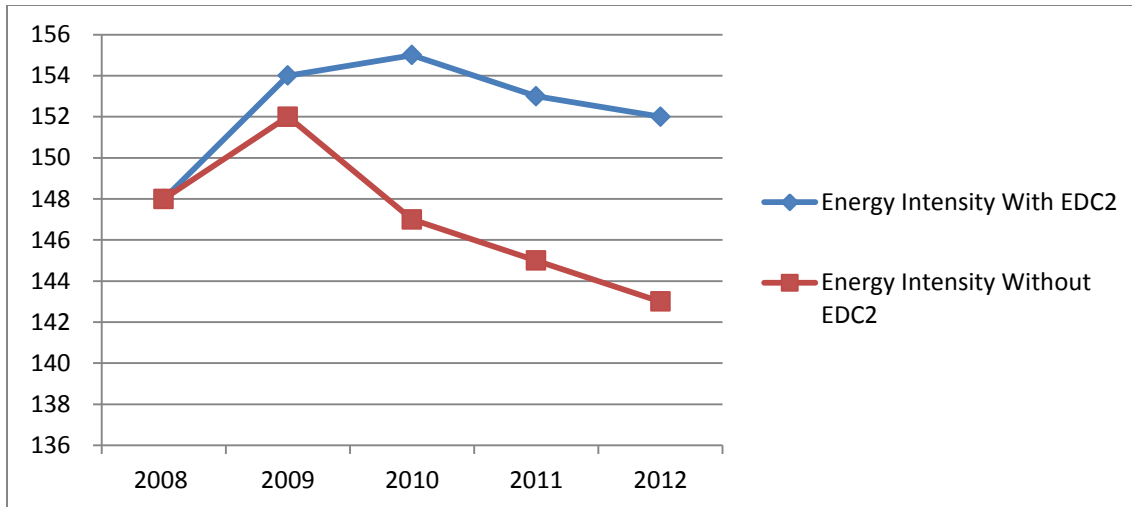
**Chart 1 – Total electricity consumption with and without data from the Enterprise Data Centre (EDC2)**

Electricity savings have been achieved largely through the upgrading of lighting fixtures and controls in buildings, and replacing outdoor lights around campus with induction lighting. Also, a new carbon monoxide censor system was installed in the University Centre underground parkade that only kicks in when required, instead of running 24/7.

In addition, our Sustainability Action Team program has raised awareness in offices, student residences, classrooms and labs on the important role building users' play in energy conservation through various behaviour change programs such as shutting off lights in unoccupied rooms, powering down computers and printers when not in use, and shutting off fume hoods in labs when not being used.

Despite the relatively high electrical usage of the EDC2 facility, efficiency programs have been undertaken including the consolidation of servers, the replacement of older servers with energy efficient ones, and a shift from physical to virtual servers. In January 2013, an upgrade to the facility's firmware software was implemented with funding from the Revolving Sustainability Fund. The energy efficiencies achieved on campus are also reflected in the electrical energy intensity ratios for the period 2008-2012 when the EDC2 is both included and excluded. See Chart 2 below.

<sup>1</sup> These figures are for the Gordon Head campus only, not any of the external properties owned or operated by UVic.

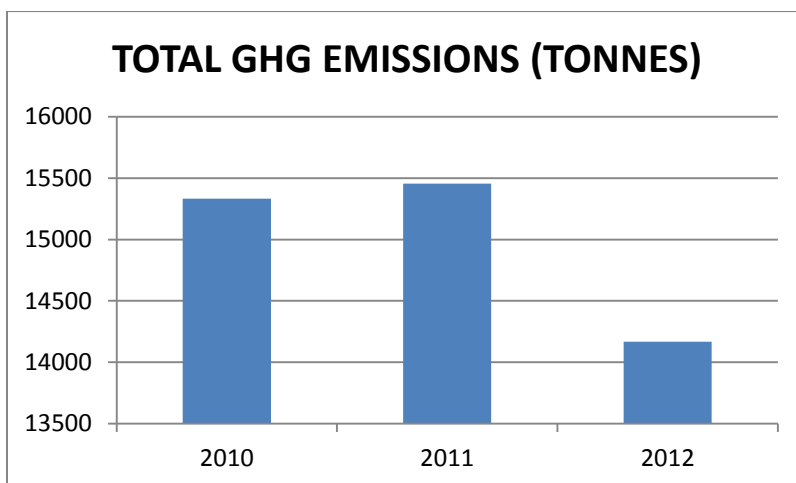


**Chart 2: Electrical energy intensity based on total campus gross square meters of building floor space relative to total campus electricity consumption.**

**Goal 1.3: Reduce greenhouse gas emissions by 20% by 2015**

**Status:** *In Progress*

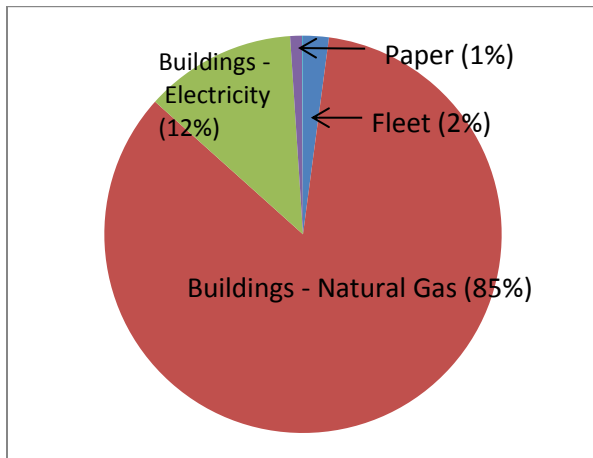
UVic is a research-intensive university needing to balance research and teaching imperatives with operational goals around reducing energy use and greenhouse gas emissions. Over the past four years UVic has consistently reduced overall energy consumption and greenhouse gas emissions while at the same time our campus grew.<sup>2</sup> While we did not meet our ambitious 20% reduction targets, between 2010 and 2012 we reduced total greenhouse gas emissions for the main campus and all external properties owned and operated by UVic by close to 8% with a continuing downward trend expected for 2013. See Chart 3 below:



<sup>2</sup> Between 2010 and 2013, two new campus buildings, the Enterprise Data Centre and the South Tower residence building, were completed. Over the same period, the total campus population rose by approximately 1,000.

**Chart 3: Total greenhouse gas emissions.** Note the year 2010 is used as a baseline as this was the first year UVic performed a comprehensive, institution-wide greenhouse gas inventory consistent with the provincial government’s standardized methodology and emissions factors. Total energy use includes the Gordon Head campus, as well as external properties owned and operated by UVic off campus.

The use of natural gas to heat our buildings is by far the largest contributor to the emissions profile of the university, as shown in the Greenhouse Gas Emissions Profile for 2012 in Chart 4 below:



**Chart 4: 2012 Greenhouse Gas Emissions Profile**

Between 2010 and 2012 UVic reduced total natural gas use by 9%. This reduction is largely due to the success of the Continuing Optimization Program in which a detailed building energy audit is conducted and cost-effective improvements to the building’s HVAC systems are implemented, increasing the building’s energy efficiency an average of 10%. To date, 6 buildings have completed with program, with another 6 scheduled for 2014, and a final 7 for 2015.

Other reductions in campus natural gas usage have been accomplished by completing major maintenance to the pipes on the main gas boiler system in the Engineering Lab Wing building, and performing a winter holiday vacation temperature set back program every December for the past 3 years.

**Goal 1.4: Increase our renewable Energy Portfolio**

**Status:** *Not Achieved*

In 2012 UVic completed a campus Integrated Energy Master Plan that identified a series of renewable energy options and recommendations for campus that could reduce total energy use, greenhouse gas emissions and save money over the long term. We continue to review these options for consideration and implementation in the years to come, including options for the replacement of the aging hot water natural gas boiler system that provides heat to the district energy heat loop on campus.

**Goal 1.5: Quantify risks to university resources and infrastructure associated with global climate change by 2015**

**Status:** *Not Achieved*



This topic is currently informally considered as part of building operations and in energy planning in broad terms as part of the campus Integrated Energy Master Plan.

In the future, the probable impacts of climate change on our campus may be more formally considered by Facilities Management and other departments in their planning exercises. Plans could include monitoring and taking into account the findings and initiatives on the topic from on campus research entities such as PICS and the Pacific Climate Impacts Consortium.

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## 2.0 Transportation

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***Vision: A campus that has sustainable travel options for every campus community member and acts as a hub in a regional transportation network.***

**Goal 2.1: Increase bus use, cycling and carpooling to 70% of campus modal split by 2014.**

**Status: In Progress**

Since the first comprehensive travel mode study was completed in 1996, the modal share of people traveling to campus by means other than by single occupancy vehicle has increased from 42.5% to 60.3%, an increase of 42%. This translates into roughly an additional 3,560 students, staff, faculty and visitors using transit, cycling, carpooling or walking to campus (based on an estimate of 20,000 campus users per day). See Chart 5 below.

Travel Mode	1996	2000	2004	2006	2008	2010	2012
Transit Riders	11.3%	17.8%	26.2%	27.4%	31.1%	26.0%	27.7%
Cyclists	6.9%	5.5%	6.0%	5.3%	7.1%	8.9%	7.9%
Pedestrians	8.7%	11.3%	8.7%	11.2%	11.2%	15.9%	14.5%
Skateboarders/Rollerblades	0.0%	0.0%	0.2%	0.1%	0.3%	0.4%	0.1%
Carpool	15.6%	11.0%	11.8%	11.9%	12.8%	10.0%	10.1%
<b>Subtotal</b>	42.5%	45.6%	52.9%	55.9%	62.5%	61.2%	60.3%
Single Occupancy Vehicles	57.5%	54.4%	47.1%	44.1%	37.5%	38.8%	39.8%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Chart 5: Transportation modal splits by survey year.**

The increases in people choosing to travel by sustainable modes was achieved primarily with the introduction of a student UPass system in 1999 that gives students taking at least one class unlimited access to the regional transit system included in their regular student fees. Staff and faculty who do not have a parking permit can take advantage of a subsidized employee monthly bus pass at over 50% off of the regular price. UVic has also worked closely with BC Transit to improve the frequency and reliability of transit service to campus with the introduction of two new express services and increased service hours at peak times on the busiest routes.

All employees and residents of the Family Student Housing Complex who do not have a parking permit may also join the Victoria Car Share Co-op for no charge as part of a partnership UVic maintains with the co-op. A discounted membership is also available to graduate students. The car share co-op keeps three vehicles in the local fleet parked on campus for convenient access, although UVic members also have access to all of the vehicles in the fleet.



UVic has supported the cycling community with improvements to cycling infrastructure including the creation of a new Campus Bike Centre (with covered racks and lockers for over 200 bikes, plus equipment lockers), the installation of more racks and lockers around campus, the building of a self-service bike repair kiosk (the “Bike Kitchen”) and hosting an annual Bike to Work Week program. UVic also supports the SPOKES bicycle program that provides used bikes refurbished by volunteers to the campus community and guests at minimal cost.

UVic will continue to work to improve sustainable transportation options for the campus community in the years to come. These efforts will include an expanded bus exchange scheduled to be completed in late 2014 that will provide bays for 10 additional buses. The progress that may be achieved relates to the multi-faceted challenges in modifying travel behaviours.

**Goal 2.2: Reduce the number of fleet vehicles that consume fossil fuels to 40% of vehicle fleet.**

**Status:** *In Progress*

Of the 94 vehicles owned and operated by UVic, 22 or 23% are 100% electric powered gators used by Facilities Management on campus grounds. The campus fleet also now includes 3 gasoline-electric, non-plug-in hybrid vehicles and 4 diesel power vehicles fueled with a locally-sourced B5 biofuel blend.

Overall, efforts are made to purchase the most fuel-efficient, low emission vehicles at the best price with the lowest ongoing operation and maintenance costs.

**Goal 2.3: Quantify emission generated by university business-travel annually starting in 2012 to assist in developing reduction strategies.**

**Status:** *Not achieved*

The quantification of emissions from business travel by staff, faculty and students is currently not required as part of the provincial carbon neutral requirements for public sector organizations in BC, including the post-secondary sector. While emissions associated with travel contribute significantly to the overall carbon footprint of the university, attention has been initially focused on measuring, reducing and reporting on energy use from campus building operations.

UVic will continue to work with other public sector organizations to investigate the possibility of developing a standardized method of recording and measuring emissions from travel, and the purchase of offsets in the years ahead.

**Goal 2.4: Increase support for persons with a disability as it relates to travel, parking and transportation choice.**

**Status:** *Achieved*

UVic is committed to creating a campus that is accessible for all. UVic’s Parking Services responds to ongoing requests for increased disability parking on campus on an as needed basis. We currently have 72 disability parking spaces, both metered and in general parking areas. This is an increase from 66 in 2006, and 51 in 2001.

Free training is available through BC Transit’s Community Travel Training Program for students and staff with disabilities on how to use the transit system in greater Victoria, including the use of the low-floor

accessibility services on buses and tips on how to get on and off the bus safely. All buses that come to campus have low-floor accessibility and drivers will assist people with disabilities to access the service.

**Goal 2.5: Work with neighbouring municipalities on linked transportation strategies to more than double the per capita proportion of bicycle use by 2014.**

**Status:** *In Progress*

UVic participated in consultations during the creation of the CRD's Pedestrian and Cycling Master Plan in 2010 and 2011. UVic has collaborated with the District of Saanich on the creation of bike lanes along McKenzie Avenue leading into campus and supported the creation of bike lanes along Henderson Avenue with the Oak Bay Active Transportation group. We are invited to make presentations to the Saanich Bicycle and Pedestrian Mobility Advisory Committee, as required.

**Goal 2.6: Build a foundation for greater co-operation and co-ordination of sustainable transportation initiatives in the region.**

**Status:** *Achieved*

Ongoing relationships have been established with BC Transit, other post-secondary institutions, local governments and other community interest groups involved in planning for and advancing regional sustainable transportation options.

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### 3.0 Purchasing

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**Vision: All major purchasing decisions are made using a triple bottom line decision-making framework.**

**Goal 3.1: Utilize a triple bottom line framework for major purchasing decisions by 2010.**

**Status:** *Achieved*

Included in Purchasing Services' [Supply Management Social Responsibility and Sustainability](#) is the objective "To develop a framework of measurable practices that balance economic priorities with environmental, ethical and social values and considerations..." Socially and environmentally responsible procurement practices have been implemented and utilized in all purchasing decisions over the past few years. For example, the carbon footprint and waste reduction practices of a potential supplier contract are considered as part of the overall factors.

**Goal 3.2: By 2012, establish a regional or provincial purchasing initiative to incubate ideas and support for sustainability purchasing policies and practice.**

**Status:** *In Progress*

UVic is part of a provincial post-secondary collaborative that includes purchasing, with UVic holding the co-chair position on the procurement subcommittee. The subcommittee is developing terms of reference and the various procurement documents that will include strong sustainability and fair trade language designed to promote sustainable procurement policy and practice province-wide.

**Goal 3.3: Serve fair trade certified products that are readily available in 100% of food outlets on campus.**

**Status:** *Achieved*

All of the food outlets on campus and catering serve only 100% organic, fair trade certified coffee. UVic also became the first “Beyond Fair Trade” campus in Canada with the introduction of [Doi Chang](#) coffee, which is 50% grower owned, available at some outlets. All outlets also feature a selection of fair trade teas and chocolate.

**Goal 3.4: Design purchasing agreements that accommodate different sizes and types of businesses.**  
**Status:** *Achieved*

UVic invites suppliers of all sizes and types to provide goods and services to our campus. Where possible, the quantities specified for purchase are organized in a manner that allows for a competitive cross section of vendors to participate in the procurement process. The campus purchasing policy is inclusive of all sized businesses.

**Goal 3.5: Increase purchasing of local goods and services.**  
**Status:** *Achieved*

The purchase of local goods and services is a priority for Purchasing Services and Food Services, where supplies exist. Included in the [Social Responsibility and Sustainability Objectives](#) of UVic Purchasing Services is a section that clearly states one principle is to "engage in procurement of locally purchased products where practical and economically feasible to reduce GHG emissions..." UVic also gives local suppliers the advantage in applications for a [Strategic Alliance or Preferred Vendor Status application](#); see section 10.6 in this document.

UVic is a recognized leader in local food procurement. Food Services estimates that roughly half of all of our food purchased is sourced locally including produce, poultry, eggs, baked goods and pizza. Currently 20 out of 24 of our food suppliers are from either Vancouver Island or the Lower Mainland. UVic's preferred supplier of computer equipment is a locally owned and operated company, as is the supplier of printers and copiers, and all cycling racks and lockers.

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## 4.0 Governance, Decision-Making and Sustainability Resources

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***Vision: A university that integrates sustainability issues into decision making and utilizes innovative funding mechanisms to further advance sustainability efforts.***

**Goal 4.1: Implement a campus sustainability communications strategy by the end of 2009.**  
**Status:** *Achieved*

A sustainability communications strategy was developed and approved by the Vice President of Finance and Operations in May 2011. The strategy guides the communications work of the Office of Campus Planning and Sustainability that aims to:

- Position, emphasize and enhance UVic's reputation as a local and national leader in sustainability.
- Elevate sustainability to a level of campus-wide awareness and action.
- Communicate to internal and external stakeholders, sustainability initiatives implemented as a result of the Sustainability Policy and Sustainability Action Plan.
- Engage the campus and broader stakeholder communities in sustainability issues and initiatives.

**Goal 4.2: Publish a sustainability report card with quantitative indicators annually beginning in 2011.**

**Status:** *Achieved*

In January 2012 the Office of Campus Planning and Sustainability published “Progress Report on the Sustainability Action Plan: Campus Operations, 2009-2014, Sustainability Highlights 2009-2011” that included a mid-term update on progress made towards all of the goals listed in the action plan. The report is available at the Office’s website.

**Goal 4.3: Provide organizational systems and resources to implement and monitor this Action Plan.**

**Status:** *Achieved*

UVic’s Office of Campus Planning and Sustainability operates under the prevue of the Vice-President Finance and Operations. The office has three full time staff; two Sustainability Coordinators and a Director of Campus Planning and Sustainability. In addition to these positions, the university employs other operational staff who work primarily on sustainability issues including an Energy Manager, Waste Reduction Coordinator, Surplus Assets Coordinator and Parking and Transportation Coordinator. Staff in these positions are dedicated to reducing the environmental impact of the university and have direct relations to the outcomes listed in this plan.

In addition to human resources, UVic has also made substantial monetary investments in the advancement of sustainability. Some of the bigger projects include providing the capital to establish the Revolving Sustainability Loan Fund, installing energy monitoring software in most buildings, installing standardized recycling and composting bins inside buildings, constructing a Campus Bike Centre, installing electric vehicle charging stations, hosting numerous sustainability awareness events, hiring consultants to advise on how to meet goals (e.g., the campus energy master plan was prepared by a contracted engineering consulting firm), and providing funding to undertake campus upgrades such as the lighting replacement program and the Continuous Optimization Program.

Regular reports on the progress the university is making towards its sustainability goals are provided to the Sustainability Advisory Committee and the Campus Planning Committee, both of which meet three to four times per year.

**Goal 4.4: Host special events which promote the exchange of sustainability knowledge among our campus community members.**

**Status:** *Achieved*

The Office of Campus Planning and Sustainability has hosted and co-hosted numerous special events, lectures, open houses and seminars promoting a wide assortment of sustainability-related topics since 2009. These range from climate change to food security to the protection of the world’s oceans.

**Goal 4.5: Promote triple bottom line perspectives in decision-making across the institution.**

**Status:** *In Progress*

The UVic Sustainability Policy states, “The university recognizes that one of the great challenges of our time is to make decisions that simultaneously consider and advance Ecological Balance, Economic Prosperity and Social Development” and that “Sustainability Activities will require balanced use of resources within budgetary parameters and will utilize life cycle assessments.” To these ends, triple bottom line decision-making, whereby environmental and social criteria are given equal weight to

financial ones, has been incorporated into some aspects of different university practices, such as in the evaluation criteria set out by Purchasing Services for procurement decisions.

Consideration as to how the goal may be more formally operationalized or adjusted will be part of the work undertaken to renew the Action Plan.

**Goal 4.6: Increase participation in the Community Green Map system.**

**Status:** *Achieved*

UVic's Office of Campus Planning and Sustainability is a partner in the Community Green Mapping Collaborative which is hosted by UVic's Institute Studies and Innovation in Community-University Engagement. The Collaborative's mission is to create a series of regional green maps, including an update to the campus green map.

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## 5.0 Buildings and Renovations

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***Vision: A campus where all facilities are built or renovated to meet current green building standards and act as physical tools of education for both the campus and broader community.***

**Goal 5.1: 100% of all capital building projects and major renovations will utilize an integrated approach to building planning, design, construction and operations.**

**Status:** *Achieved*

Since 2006, UVic has followed a set of [sustainable development guidelines](#) to assist decision-making related to sustainability in new buildings and renovations. These guidelines provide options for meeting the academic mission of the university in a manner that is socially, economically and environmentally sustainable.

The guidelines promote green buildings, which emphasize responsible construction and building practices, feature recycled materials and renewable resources, minimize impacts on natural areas, accommodate more floor space within a smaller building footprint, utilize systems that emphasize water and energy conservation and efficiency, and enhance indoor environmental air quality. Additionally, the template Request for Proposal (RFP) process for professional architectural and engineering services has a section dedicated to the integrated design process for both new construction and renovations.

The approach to operations in our buildings on campus is an ongoing evolutionary process. All buildings on campus are cleaned with green cleaning supplies and are currently undergoing energy and water system optimizations. Other building programs include the Sustainability Action Teams focused on behavior change within buildings and the green office program which provides information to building occupants on how to conserve energy and water.

**Goal 5.2: 100% of all new buildings will be constructed and certified as LEED Gold facilities.**

**Status:** *Achieved*

All buildings constructed since 2008 have achieved a LEED Gold rating – First Peoples House and South Tower Residence.

**Goal 5.3: 50% of all major renovation projects registered in the LEED Existing Buildings program.**  
**Status:** *Not Achieved*

Renovation projects cover a range of building maintenance activities and adjustments to different building components. Although sustainable building practices are advanced by the Facilities Management Department for building renovations, the LEED system has not been utilized for any projects. Only new capital development projects target LEED certification under the guidelines for LEED New Construction (NC). The LEED Operations and Maintenance (O and M) certification standard applies to buildings which are undergoing improvement work or little to no new construction. Given the wide variety and scope of building renovation work on campus and the nature of the LEED system, certification of sustainable renovation practices will be only advanced for major renovation projects as defined under the province's high performance building policy.

**Goal 5.4: 100% of all building spaces are cleaned with green cleaning techniques and products by 2011.**  
**Status:** *Achieved*

All cleaning products used by Janitorial Services in student residences, offices, classrooms and public spaces are certified 'green' cleaning products. The Green Cleaning program utilizes cleaning products that meet or exceed Green Seal GS37 or Environmental Choice ECP 33 certification programs. Regular cleaning products are used where and when necessary to remove stubborn stains from carpets and walls. The program also employs a micro-fibre cleaning system that reduces the need to use some chemical cleaning altogether.

**Goal 5.5: To maintain and maximize the utilization of our physical infrastructure.**  
**Status:** *Achieved*

The average age of buildings on campus is over 30 years. A two year renewal project for six of the older buildings was completed in March 2011 with funding from the Knowledge Infrastructure Program. A building conditions assessment and a campus Integrated Energy Master Plan have both been commissioned in the last couple of years. They provide much needed information on priority renewal areas for future capital plans including necessary seismic upgrades and energy efficiency improvements.

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## **6.0 Grounds, Food and Urban Agriculture**

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**Vision:** *An organically landscaped and managed campus that enhances biodiversity and offers healthy, local and diverse food choices.*

**Goal 6.1: Develop a process to review the protection of natural areas outlined in the 2003 Campus Plan.**  
**Status:** *Not Achieved*

The 2003 Campus Plan provides for the Mystic Vale and Haro Woods areas of the campus to be protected from development in perpetuity. Other natural areas including South Woods, Finnerty Gardens, the Bowker Creek wetlands, the Garry Oak Meadow and the area west of the Engineering/Computer Science building are designated for a 10 year moratorium on any form of

development. The status of these areas will be considered as part of the overall Campus Plan review process which is scheduled to take place in late 2014.

The Natural Features Study completed in 2008 entailed inventory data collection and mapping of the natural areas of the Gordon Head campus. It was undertaken to supply important information to guide future planning on the campus as part of the Campus Plan implementation program. It will also be an important resource for the work to be undertaken as part of the Campus Plan review.

**Goal 6.2: Eliminate toxic chemicals from routine landscape management by 2012.**

**Status:** *Achieved*

UVic employs an Integrated Pest Management approach that eliminates non-essential use of pesticides on university property. However, in some cases, small applications are required for isolated site specific landscape management purposes.

**Goal 6.3: Reduce the amount of impermeable surfaces on campus.**

**Status:** *Not Achieved*

The 2004 Stormwater Management Plan for the University of Victoria calculated that 23.5% of campus was covered by impervious area such as roofs, roads, sidewalks, and parking lots. It also stated that the impermeable surface area in 1956 was 6.5%. No updated information for changes, with new campus development since 2004 is available.

**Goal 6.4: Restore unhealthy natural areas on campus.**

**Status:** *In Progress*

There are two major natural areas on campus: Mystic Vale (including Hobbs Creek) and the Bowker Creek Watershed. The Bowker Creek Watershed located on the west side of campus by the University Club, is the headwaters for Bowker Creek. The area is heavily treed and lightly used by pedestrians and vehicles. A community group called the Bowker Creek Initiative has developed a 100 year *Bowker Creek Blueprint*. The university recognizes the sound principles recommended in this document. Mystic Vale is located on the southeast corner of campus. The area is heavily treed and contains a ravine and Hobbs creek. This area is in need of restoration due to stream bank erosion caused by heavy human use. As well, it is currently overrun in certain sections with English Ivy, an invasive species.

A watershed assessment and a 5 year restoration plan were prepared for both Mystic Vale and Hobbs Creek in 2009. To date, a number of initiatives have been undertaken including; increased signage, invasive species removal, and the addition of log weirs in the creek.

**Goal 6.5: Increase accessibility to healthy and diverse food options.**

**Status:** *Achieved*

The UVic Food Services group and UVic Students Society endeavor to ensure the campus community is offered healthy and diverse food options at all the food outlets on campus. UVic was recently named one of the most vegetarian-friendly campuses in Canada ([www.peta2.com](http://www.peta2.com)) for the wide variety of vegetarian options available across campus. Almost all of the food served is prepared onsite by UVic staff, who strive to create healthy soups, stews, stir-frys, pastas, salads and sandwiches from fresh local ingredients. UVic stopped using trans fats in cooking over 12 years ago, and purchases local and organic ingredients whenever possible, with 20 out of 24 of our regular food suppliers being from either



Vancouver Island or the Lower Mainland. In 2012 UVic received a [Golden Carrot Award](#) for being one of the first “Farm to University” programs in BC.

UVic food outlets also feature a wide variety of ethnic foods reflective of our diverse campus population. We offer many varieties of sushi, noodles and Asian baked goods, plus curries and freshly made dhal. To continue to improve standards on food diversity, quality, and menus customized to the region, the Board of Governors has recently approved a \$7 million renewal and expansion of the campus’ main retail dining facility in the University Centre scheduled for opening in September 2014.

**Goal 6.6: Review and assess the opportunities for locally produced and other “low impact” food options to be made available on campus.**

**Status:** *Achieved*

The UVic Food Services, Purchasing Services, UVic Students Society and the UVic Bookstore have all incorporated purchasing practices that support local food producers and suppliers from Vancouver Island and in other parts of BC.

An audit of purchasing contracts revealed that almost half of all food served is locally sourced from either Vancouver Island or the Lower Mainland of BC, including most of the fresh produce, supplies permitting. All of the pizza comes from local pizzerias that use local ingredients (where possible) in the toppings, and all of the baked goods (bread, muffins, cakes, pastries, bagels, etc.) sold on campus come from local bakeries. UVic recently started purchasing all poultry from Vancouver Island farms and all eggs used are “cage-free.” We are continually increasing the selection of local cheeses, and meats from Vancouver Island farms. UVic also sells 100% organic, fair trade coffee, most of which is roasted and packaged locally.

These practices support local farmers and businesses creating employment and a stable tax base in the region. They also reduce the environmental footprint and greenhouse gases normally associated with food distribution.

**Goal 6.7: Create a program to coordinate and support academic study and research in our campus landscapes by 2010.**

**Status:** *Not Achieved*

The campus is occasionally utilized by students and faculty for various academic and research projects on an informal basis, although no formal programs have been established. The goal will be revisited as part of the renewal of the Action Plan.

**Goal 6.8: Ensure that 75% of all new plants installed on campus are native.**

**Status:** *Achieved*

The campus standard set by the Facilities Management Department provides for native species to be utilized for new landscaping projects and updates. In 2009 and 2010, 100% of the plants installed on campus by Grounds staff were native species.

**Goal 6.9: Ensure that 50% of natural areas on campus are healthy natural areas.**

**Status:** *Achieved*

The intent of this goal is to ensure that the natural areas on campus are managed in such a way as to minimize human impacts, to maintain ecosystem function, and to allow the natural environment to

thrive. Unfortunately, UVic does not currently have a methodology to measure the health of the natural areas on campus.

In lieu of measuring the percentage of campus that is considered healthy, UVic has instead developed and is working to implement restoration programs for those areas in need of work on campus and proper stewardship plans for other areas on campus. In early 2014 a Tree Assessment and Tree Management Report was prepared that reviewed the health of trees on campus and made recommendations for ongoing management and planning for trees.

**Goal 6.10: Increase spending on organic and fair trade food and beverages.**

**Status:** *Achieved*

Since 2009, 100% of all coffee sold on campus, approximately 50% of tea and a small amount of chocolate and sugar products are organic or fair trade certified. A historical measure of spending on these products is not available. However, UVic is constantly searching for ways to improve the quality of food options on campus and organic or fair trade food and beverages are an important focus in that goal.

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## **7.0 Waste Management**

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**Vision:** *A zero waste institution.*

**Goal 7.1: A streamlined, standardized and consolidated waste management operating model by 2010.**

**Status:** *Achieved*

In 2009, UVic's Facilities Management Group created the Waste Reduction Unit whose sole purpose is to manage and consolidate all the waste and recycling operations on campus. The unit is responsible for the collection of all landfill waste, recyclable materials including mixed paper, cardboard, and bottles/cans/hard plastics from the student residence area (previously handled by a private company) as well as across the rest of campus.

As part of the new model, equipment has been upgraded at the campus transfer station, and all waste and recycling bins, and associated signage on campus, were standardized. A new truck was purchased in 2012 to improve efficiencies in the collection of waste on campus. The unit also developed a framework for calculating the university's landfill diversion rate and a framework for calculating the cost to the university to service the campus's waste, recycling and composting needs.

Our waste hauling company has adjusted their campus pickups from a scheduled program to an on demand program that has reduced the traffic to and on the campus, as well as tipping costs. We no longer pay to have nearly empty bins dumped, saving time, money and greenhouse gas emissions.

**Goal 7.2: A waste diversion rate of 75% by 2012.**

**Status:** *In Progress*

The overall campus landfill waste diversion rate for 2013 was 68.45%, up from 64.23% in 2011. This increase was mainly due to an expanded food waste composting program and improved product stewardship programs for electronics, small appliances and batteries. Other initiatives include:

- Made significant changes to classroom building recycling systems by removing all bins from classrooms and lecture theatres and replacing them with expanded waste stations in hallways and common areas.
- Launched a successful office recycling pilot program in five buildings where blue recycling bins for mixed paper were removed from individual offices requiring the occupant to bring their recycling to centralized sorting stations that include mixed paper and mixed containers.
- Closed garbage chutes in student residence buildings.
- Expanded the collection system for batteries and personal cell phones.
- Hosted waste reduction events including “Love-A-Mug” week and E-Waste recycling days.
- Upgraded 75 water fountains on campus and installed several new ones in food service areas to allow for easy refilling of personal water bottles. A portable outdoor water bottle filling station was purchased and used at athletic and public events to reduce the amount of bottled water being purchased. Sales of bottled water are down by 11% in 2013 compared to 2012.
- Printers in computer labs, the library and offices default to double-sided printing and many administrative reports and class materials are available exclusively online giving the user the option to print or not. Paper purchased for use on campus has decreased by approximately 10% per year since 2011.

**Goal 7.3: Achieve a construction demolition waste diversion rate of greater than 75%.**

**Status:** *In Progress*

The LEED green building certification program awards credits for construction of buildings that have achieved a waste diversion rate of greater than 75%. Since 2009, all new buildings constructed on campus have been LEED gold certified and all achieved or surpassed this goal including both the Administrative Services and the David Turpin (formerly Social Sciences and Math) buildings that achieved waste diversion rates of greater than 95%.

The 2010 Knowledge and Infrastructure Program (KIP) allotted funding for the renovation of six buildings on campus. Of the six renovations, only the Cornett building upgrade was measured for its waste diversion rate as waste diversion measurement is not standard among contractors. The final waste diversion rate for Cornett was 84.95%.

Waste diversion rates for smaller renovation projects on campus are not currently available. Therefore, reporting on this goal is limited to larger projects where measurement was feasible. Methodologies for measuring waste diversion, to capture information from a larger proportion of capital development projects, will be investigated in partnership with our contractors.

**Goal 7.4: Ensure 100% of all electronic waste is recycled domestically.**

**Status:** *Achieved*

All of UVic’s electronic waste (computers, monitors, printers, fax machines) is recycled through the provincial Return-It Electronics program. All recyclers processing material through this program are audited according to Electronic Product Stewardship Canada’s (EPSC) Environmental Recycling Standard. This standard prohibits the export of any equipment or part to developing nations and the improper handling and disposal of hazardous material, as well as the transport of any unwanted items to the landfill. Electronic media such as disks and CDs are shredded for confidentiality reasons, and recycled through the same Return-It Electronics program.

**Goal 7.5: Measure the amount of hazardous waste we produce annually.**

**Status:** *Achieved*

UVic's Occupational Health, Safety and Environment department is responsible for the collection, measurement, and disposal of hazardous waste on campus. The department has a 'zero waste down the drain' policy and provides yearly educational training for new and continuing staff about hazardous waste policy and practices. All hazardous waste is measured and disposed of using the strictest safety standards, including auditing of all 3<sup>rd</sup> party contractors.

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## 8.0 Water Management

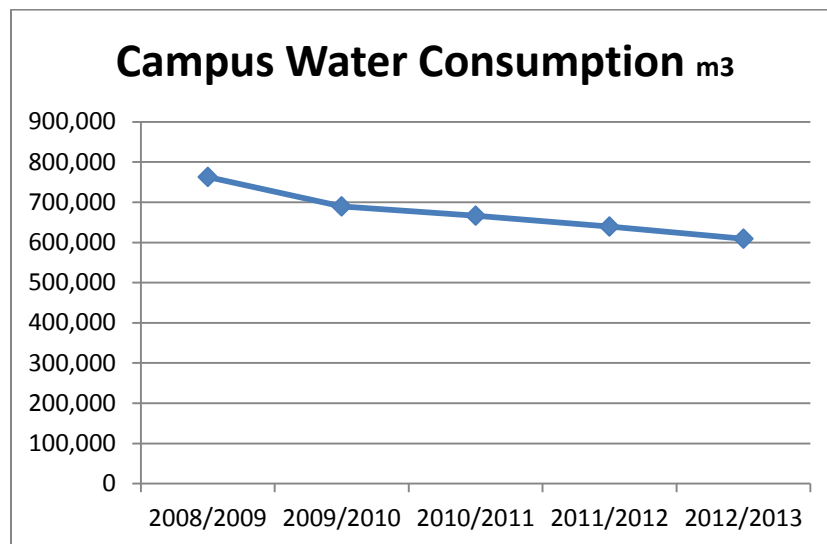
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**Vision:** *The university is an innovator in water use reduction, recovery, reuse, and stewardship practices.*

**Goal 8.1: Reduce water consumption by 25% through conservation and innovation by 2015.**

**Status:** *In Progress*

Between 2008/2009 and 2012/2013, UVic decreased its overall water consumption by 20.1%, from 762,487 m<sup>3</sup> to 609,115 m<sup>3</sup>. See Chart 6 below.



**Chart 6: Total water consumption, m<sup>3</sup> per fiscal year.**

This was achieved through a combination of changes to irrigation practices including less watering of grounds in the summer months, to conservation and efficiency measures in buildings. For example, the mechanical cooling system for walk in freezers and coolers in the Student Union Building that used to require a constant flow of water was upgraded to an electronic system, resulting in water savings of approximately 20,000 m<sup>3</sup> of water per year. Also, old aspirators that required a constant flow of water in the labs in the Department of Chemistry were replaced with portable electric vacuum pumps, greatly reducing the use of water.

**Goal 8.2: Decrease rainwater runoff by 10% by 2012.**

**Status:** *In Progress*

In 2004 UVic commissioned an Integrated Stormwater Management Plan that included estimates of total campus rainwater runoff. Since then UVic has utilized low impact development practices on all new buildings and landscaping projects that help reduce rainwater and stormwater runoff. These practices include the extensive use of porous pavers around buildings and has been used on one parking lot (Lot A). Campus wide stormwater measurements will be completed as part of the updating of the Stormwater Management Plan. Some monitoring data is available for the east side of the campus with the measurement of runoff originating from Parking Lot #1.

**Goal 8.3: Increase campus community access to public water for drinking.**

**Status:** *Achieved*

A total of 75 drinking water fountains across campus have been retrofitted with bottle filler spouts for easy refilling of personal water bottles. New water fountains were installed in high traffic food outlets including the Biblio Café and Finnerty Express. A portable outdoor water bottle filling station was purchased and used at athletic and public events to reduce the amount of bottled water being purchased.

**Goal 8.4: Expand the system and the use of treated waste water on campus.**

**Status:** *In Progress*

UVic uses treated waste water from the Outdoor Aquatic Research Facility in six campus buildings (Bob Wright Centre, Engineering/Computer Science, Medical Sciences, David Turpin, Administrative Services and First Peoples House) by recycling it through toilets and urinals. The treated waste water also provides energy in the form of heat to the water-to-water heat pump used to supplement the heating requirements in the Engineering/Computer Science building. The new Centre for Athletics, Recreation and Special Abilities (CARSA) complex, scheduled for completion in 2015, will also be connected to the waste water system. Other future building connects will be considered in conjunction with the operational status and availability of water from the Research Facility.