



CAMPUS SUSTAINABILITY OFFICE

**ANNUAL
REPORT
TO BOARD**

2009/10



UBC CAMPUS SUSTAINABILITY Annual Board Report 2009/2010

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1. Executive Summary

This report provides an overview of the sustainability activities at UBC Vancouver, highlights achievements from the year, and outlines strategic priorities for next year. Attachment A includes a presentation of progress against some key sustainability metrics for the latest reporting period 2009/2010.

BACKGROUND

This annual report presents key sustainability achievements and reflects the efforts of the entire campus community. Highlights are presented in the following five focus areas:

1. Policy and Governance
2. Social
3. Ecological
4. Economic
5. Communications and Outreach

<http://sustain.ubc.ca/2010CSOBoardReport.pdf>

POLICY AND GOVERNANCE

In 2009/2010 two significant announcements paved the way for an enhanced and ambitious approach to sustainability at UBC:

- In December 2009, UBC launched *Place & Promise: the UBC Plan*. Within the plan, UBC once again emphasized the importance of sustainability as a foundation of who we are and what we do as a university.
- On January 27, 2010, President Toope announced the creation of the University Sustainability Initiative (USI), a strategic management group designed to promote and unite sustainability efforts across the Vancouver campus. Under the USI umbrella, the offices of Teaching and Learning, Research and Partnerships, and Campus Sustainability work in a highly collaborative way to leverage efforts in the areas of environmental, economic and social sustainability.

In 2009/2010 UBC established several key partnerships to improve its sustainability performance.

BC Hydro: This partnership aims at setting principles for an enhanced approach for coordination and collaboration between the parties to support our shared interests relative to energy conservation and efficiency, efficient infrastructure development, development and demonstration of new clean technology and integrated energy systems.

Nexterra and GE energy: the UBC Bioenergy Research and Demonstration Project will generate clean heat and power through biomass gasification, and will reduce GHG emissions by 12 per cent. It will also provide a variety of alternative energy research and learning opportunities and will be one more step in transforming the UBC Vancouver campus into a “living lab” of clean energy technology.

City of Vancouver: UBC and the City of Vancouver will work together to develop a ‘Sustainability Living Laboratory’, to help the City meet its Greenest City Action Team 2020 goals and support UBC to meet its Place and Promise sustainability goals.

University Neighbourhood Association: a community-wide energy and emissions reduction plan in the UBC University Town will be developed to support the UBC Vancouver Climate Action Plan targets.

SOCIAL

The entire UBC community shares the challenge and responsibility of integrating sustainability into all aspects of campus life. The University encourages this through a variety of targeted campus engagement programs.

2009/2010 program examples:

- From climate change, food security and water management to urban agriculture, transportation and waste management, SEEDS¹ projects address a range of campus sustainability issues and build community. Since 2000, SEEDS has coordinated almost 500 student projects, worked with 10 out of 14 UBC faculties and colleges and engaged over 3,000 participants.
- The UBC Sustainability Coordinator Program continues to build capacity for sustainability in the workplace.
- The UBC Residential Sustainability Coordinator Program (Res Scs)² offers outreach events for students living in residence to raise awareness of sustainability issues. In 2009/2010, the program involved 25 undergraduate and graduate students and reached approximately 2900 students through its outreach events and activities.
- Student Involvement in Sustainability: In 2009, the Campus Sustainability Office (CSO) organized and launched the “Green Lounge” for UBC’s Imagine orientation event, which showcased 21 sustainability-related student groups and campus departments.
- Over the past year, UBC continued healthy workplace practices for staff through the Focus on People Initiative. More than \$160,000 were allocated to departments to launch health and well-being initiatives internally through the Healthy Workplace Initiatives Program Fund.

ECOLOGICAL

- **Climate:** in 2009, UBC prepared its Climate Action Plan by leading campus-wide consultations and working groups to develop targets and strategies for emission reductions. The Climate Action Plan³ commits UBC to aggressive reduction targets for campus-wide GHG emissions. Compared to 2007 levels, GHGs will be reduced 33 per cent by 2015, 67 per cent by 2020, and 100 per cent by 2050.
- **Water:** a water model for the campus was completed and will inform the new Water Action Plan.
- **Energy:** in 2009/2010, UBC conducted a pilot of BC Hydro’s Continuous Optimization program in two academic buildings. This program optimizes building performance by identifying and implementing low-cost operational changes, and then maintains energy savings through real-time building performance management.

¹ <http://www.sustain.ubc.ca/seeds>

² <http://www.sustain.ubc.ca/sustainability-reps>

³ <http://www.sustain.ubc.ca/sites/default/files/uploads/pdfs/UBC%20Vancouver%20CAP%20Final.pdf>

- **Supply Management:** UBC saved 3,400 lbs of packaging by introducing a reusable system to deliver products to campus.
- **Transportation:** the TREK Program Centre⁴ has increased bicycle parking capacity on campus by 400 spots, and put down 64 “sharrows” indicating shared pathways for cyclists.
- **Green Buildings:** the provincial government mandate for all public sector buildings to achieve LEED® Gold certification (or certified equivalent) has been in effect since May 2008. In 2009/2010, UBC added the additional requirement that new construction must also achieve an energy performance rating of 42 per cent below Canada’s Model National Energy Code for Buildings. This additional requirement has been extended to major renovations (UBC Renew) to ensure that new projects will help achieve UBC’s greenhouse gas reduction targets.

ECONOMIC

- As a result of favourable activities, such as higher enrolment and prudent use of contingency spending, the University eliminated the operating deficit and ended the year with a balanced operating budget.
- UBC developed a balanced operating budget for 2010/2011, a result of significant change in the planning culture at the Vancouver campus.

COMMUNICATIONS & OUTREACH

- **Website:** In January 2010 UBC launched the first integrative sustainability website at a university. The new website features the three distinct areas of sustainability at UBC: Teaching and Learning, Research and Campus Operations Social Media Marketing Plan: To coincide with the launch of the website strategic marketing goals were set to raise awareness about sustainability at UBC.

⁴ <http://www.trek.ubc.ca/>

2. Highlight Achievements

The UBC Sustainability Annual Report 2009/2010 prepared for the UBC Board of Governors provides an overview of the sustainability activities at UBC and highlights achievements from the three areas social, ecological, economic as outlined in *Inspirations and Aspirations: the Sustainability Strategy 2006-2010* from the past year. This report fulfills the campus-wide sustainability reporting requirement outlined in UBC's Sustainable Development Policy #5. It also reflects the efforts of the entire campus community and provides a snapshot of future priorities that are critical to maintaining and growing UBC's leadership position in operational sustainability and engagement. The appendix includes a presentation of progress against some key sustainability metrics selected from *Inspirations and Aspirations: the Sustainability Strategy 2006-2010*, for the last reporting period of 2009/2010.

2.1 POLICY AND GOVERNANCE

2.1.1 PARTNERSHIPS

UBC has established four strategic partnerships to improve the sustainability performance of all parties involved:

1. **BC Hydro:** This partnership aims at setting principles for an enhanced approach for coordination and collaboration between the parties to support our shared interests relative to energy conservation and efficiency, efficient infrastructure development, development and demonstration of new clean technology and integrated energy systems.

Shared objectives are to develop and implement “best practices”, support UBC's Living Lab objectives, reduce energy UBC's Vancouver campus energy footprint, share knowledge and research findings, develop a conservation culture at all UBC campuses, raise the profile of UBC as a global leader in sustainability and clean energy technology, and engage all UBC communities to promote and foster sustainability. Key initial areas of focus:

- Integrated Community Energy System (ICES): the ICES will provide the overarching framework to integrate all key initial areas of focus for this MOU.
- Community Engagement: Engage faculty members, staff, students and residents in the creation of the ICES on the campus.
- Demand-Side Management: The initial focus will include implementing a continuous optimization program that encompasses campus core academic buildings, resident housing and ancillary buildings.
- Clean Energy Technologies: Jointly advancing the research, development and demonstration of clean energy technologies and their integration with 'traditional' technologies.

2. **Nexterra and GE Energy:** The UBC Biomass Gasification Energy Demonstration Project is a first commercial demonstration of an innovative biomass heat and power system developed jointly by Nexterra Energy and GE Energy. The system combines Nexterra's biomass gasification technology and GE Energy's high efficiency gas engines to convert woody biomass into renewable heat and power for use on campus.

The Project will provide UBC with a variety of alternative energy research and learning opportunities and will be one more step in transforming the UBC Vancouver campus into a

“living lab” of clean energy technology. This project is a critical element for meeting UBC’s GHG reduction targets. It is anticipated that this project will replace a minimum of 12% of natural gas consumed by the UBC steam plant.

- 3. City of Vancouver:** UBC and the City of Vancouver will work together to develop a ‘Sustainability Living Laboratory’, with the aim to support the City of Vancouver to meet its Greenest City Action Team 2020 goals and UBC to meet its Place and Promise sustainability goals.

Shared objectives are to reduce energy and resource consumption and GHG emission at UBC and in the City, to coordinate each party’s effort in support of the City of Vancouver’s goals of becoming the world’s Greenest City and UBC’s goals of becoming the leading institution in the world in sustainability research, development, teaching and operations, to share knowledge and research findings, to develop a sustainability culture within the population of the City of Vancouver and within the UBC campus community, to raise the profile of the City of Vancouver and UBC as leaders who demonstrate best practices and showcase initiatives.

Key initial areas of focus:

- *Teaching and Learning:* sharing knowledge and experience in developing and implementing sustainability initiatives.
- *Applied Research:* sharing research problems and results, and facilitating the application of research on sustainability solutions and issues.
- *Community Engagement:* working together with the CIRS decision theatre and other decision-making tools to engage UBC and City residents in ongoing education and dialogue around the benefits, challenges and choices associated with building a more sustainable future.
- *Campus and City as a Living Laboratory:* implementing innovative sustainability solutions.
- *Hosting the World and Communications:* communicating UBC’s and the City’s existing sustainability successes in areas such as green buildings, sustainable infrastructure, sustainable community design and development, and sustainable transportation.

- 4. University Neighbourhood Association (UNA):** An MOU will be written to outline the agreement whereby UBC and the UNA will fund the hiring of a community energy manager who will be tasked with developing a community energy and emissions plan for the Vancouver campus *University Town* (comprising all student housing, staff and faculty housing, private residential, ancillary and tenant buildings). The plan will support UBC’s ambitious GHG emission reduction targets and transition strategy towards an integrated community energy system.

2.1.2 SUSTAINABILITY AND THE NEW UBC STRATEGIC PLAN

In December 2009, UBC launched *Place & Promise: the UBC Plan*. Within the plan, UBC once again emphasized the importance of sustainability in who we are and what we do as a university. In the spirit of the UBC Plan, UBC’s sustainability programs and activities support the University to create an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research.

2.1.3 THE SUSTAINABILITY ACADEMIC STRATEGY AND THE UNIVERSITY SUSTAINABILITY INITIATIVE

In 2009, UBC undertook a six-month consultative process to develop a Sustainability Academic Strategy (www.sas.ubc.ca). This mid-level academic plan was presented to the UBC Executive in October 2009. In January 2010, the University acted on a key recommendation of the plan when President Toope announced the creation of the UBC Sustainability Initiative (USI). The USI integrates academic and operational sustainability across the UBC Vancouver campus through three offices: Teaching and Learning, Research and Partnerships, and Campus Sustainability. In concert with the USI management team, led by Professor John Robinson, the offices work in a highly collaborative way to leverage efforts in the areas of environmental, economic and social sustainability (www.sustain.ubc.ca).

2.2 SOCIAL PROGRAMS

2.2.1 SEEDS PROGRAM (SOCIAL ECOLOGICAL ECONOMIC DEVELOPMENT STUDIES)

Using the campus as a living lab, the SEEDS program brings undergraduate and graduate students, faculty and staff together to work collaboratively on applied, accredited research projects that address real-life campus sustainability issues and build community. Since 2000, SEEDS has coordinated almost 500 student projects, worked with 10 of 14 UBC faculties and colleges and engaged over 3,000 participants, saving UBC an estimated \$200,000 in consultant fees.

2009/2010 Highlights

- Conducted a series of studies through the Urban Stream Restoration Project to explore the reintroduction of a stream and provide social, ecological and financial benefits to the UBC community.
- Completed 18 SEEDS projects to enhance the sustainability of the New SUB.
- Completed 23 SEEDS projects to align with UBC sustainability themed plans and strategies (AMS Lighter Footprint Strategy and Climate Action Plan).

2.2.2 SUSTAINABILITY COORDINATOR PROGRAM

Currently in its 11th year of programming, the award-winning Sustainability Coordinator (SC) Program connects a network of UBC employees with resources and opportunities to promote and implement sustainability in their departments.

2009/2010 SC Program Achievements:

- UBC launched the Xerox Workplace Sustainability Fund and awarded funding of up to \$1,000 to six Sustainability Coordinators (SCs) to support workplace initiatives that enhance social, environmental and economic sustainability. Projects included a Styrofoam reduction and recycling pilot at the Brain Research Centre, the launch of a Sustainability Coordinator skills enhancement program through the Alma Mater Society and a “Living Atrium” project to enhance indoor air quality at the Faculty of Forestry.

2.2.3 RESIDENTIAL SUSTAINABILITY COORDINATOR PROGRAM

The UBC Residence Sustainability Coordinators (Res SCs) are students living in residence at UBC who work with other energetic volunteers to lead, inspire, network, learn and create change in their residences and across campus. The Res SC program involves 25 undergraduate and graduate students and reaches approximately 2,900 students through its outreach events and activities.

2009/2010 RES SC Program Achievements:

- Launched the Res SC Socials networking events, for Res SCs living in different residences to share ideas and solutions and hear presentations from campus partners.
- Launched a Res SC Facebook group page to better connect Res SCs living in different residences and to promote Res SC events.
- Organized Sustainability Week, which included events such as Stuff Swaps and Power Hour (to turn off power).
- Arranged compost and recycling sorting games to raise awareness of how to segregate compostable and recyclable materials.
- Conducted field trips to the UBC Farm and UBC's In-Vessel composting facility.
- Hosted movie nights, featuring movies about sustainability issues.

2.2.4 STUDENT INVOLVEMENT IN SUSTAINABILITY

Student involvement in sustainability is significant. An inventory of active student-run sustainability groups found that as of the 2009/2010 school year, there were at least 26 active sustainability-related groups, clubs and associations at UBC, with comprehensive mandates and activities.

In 2009, the Campus Sustainability Office (CSO) organized and launched the "Green Lounge" for UBC's Imagine orientation event. The CSO collaborated with Imagine staff to create a sustainability specific section that showcased 21 sustainability-related student groups and campus departments.

UBC also supported 20 paid student jobs and internships in sustainability over the 2009/2010 school year. Interns worked throughout the year at the CSO, TREK Transportation Demand Management Program Centre, UBC Alma Mater Society, Waste Management, Institute for Resources, Environment and Sustainability, the Centre for Teaching and Academic Growth, the University Sustainability Initiative (Teaching and Learning Office) and Student Housing and Hospitality Services.

2009/2010 Select Student-led Sustainability Initiatives:

- NOW (No Other World) Climate Action Conference co-hosted by the Alma Mater Society, Common Energy and the Student Environment Centre.
- 'Think Outside the Bottle Campaign', co-led by Common Energy and the Alma Mater Society, to raise awareness about the environmental impact of bottled water.
- Second annual 'Chasing Sustainability Conference' hosted by the Commerce Undergraduate Society – Sustainability, which looks at sustainability within business

- Waste audit of UBC's student union building managed by the Alma Mater Society's sustainability coordinator.
- goBeyond⁵: The UBC Sustainability Office is one of three partners in the goBeyond project, a BC student network that educates and builds capacity for students across the province to move themselves and their communities beyond climate-neutral. In the 2009/2010 school year, goBeyond produced a series of engaging videos⁶ called Small Feet, which show various UBC students taking small steps to reduce their impact.

2.2.5 HUMAN RESOURCES

In its third year, *Focus on People: Workplace Practices at UBC* continues to set out strategies and corresponding initiatives to consider how we may improve our daily practices and develop a sustainable, healthy workplace, retain staff and faculty through positive opportunities and incentives, foster leadership and management practices, attract outstanding talent to UBC and identify and share institution-wide goals. Great strides have been made in our continued implementation of the Focus on People framework.

2009/2010 Human Resources Achievements:

- Launched e-recruit⁷: eRecruit is UBC's campus wide online recruiting system that stemmed from a 2004 report that created ideas about how to streamline human resource processes and systems at the University. eRecruit, developed from these ideas, gives departments greater control and flexibility around the recruitment process while eliminating the volume of manual paperwork that needs to be completed and submitted for a successful recruit.
- Developed a Housing Assistance Program: The new Housing Assistance Program includes improvements to both the eligibility requirements as well as the financial assistance options.

2.2.6 STUDENT HOUSING AND HOSPITALITY SERVICES

Student Housing and Hospitality Services (SHHS) is committed to the health and wellbeing of the students, staff, guests and the greater UBC community, taking a proactive role in promoting and supporting sustainability on campus. In the past seven years, over 2,000 beds have been added to the student residence inventory, and a plan is in place to add another 2,500 beds in the next five years. With regards to space improvement, there is a strong focus on the rehabilitation, rather than the demolition and replacement, of facilities.

UBC Hospitality Services has placed social and ecologically sustainable practices at the top of the priority list, from both a business and a human resources perspective. Ongoing involvement in Project Seahorse allows for further engagement in the campus program supporting sustainable seafood choices.

⁵ <http://www.go-beyond.ca/>

⁶ <http://www.youtube.com/watch?v=Tz-UBFG0XXs>

⁷ http://hr.ubc.ca/adv_srv/erecruit/

2009/2010 Student Housing Achievements:

- Initiated the renewal of the 30 vehicle fleet to support UBC's GHG reduction targets, with the first zero emission vehicle expected in the fall of 2010.
- Conducted various facility upgrades at Totem, Place Vanier and Gage Residences, to improve the living environments for students living in these facilities.
- With the continued demand for childcare spaces on campus, SHHS has added over 100 child care spaces in the past 18 months, and is now converting the Barn Coffee Shop to a childcare facility offering quality services to UBC students, faculty and staff.

2009/2010 Hospitality Services Achievements

- Hospitality Services was heavily involved in the promotion and participation of “Blueberry Fest”, a one-week campus-wide event promoting local, organic blueberries and blueberry recipes in partnership with the BC Blueberry Council.
- As a sponsor of Sprouting Chefs Summer Camp, a kitchen garden program for youth, Hospitality Services helped educate kids on healthy cooking, the UBC Farm and the importance of eating local and sustainable food.
- With the opening of the Niche Café and a food outlet in the CIRS building, Hospitality Services will continue to expand its offering of culturally diverse social spaces and healthy menu options for the community.

2.3 ECOLOGICAL

2.3.1 CLIMATE

UBC Vancouver completed its *Climate Action Plan*⁸ by leading campus-wide consultations and key stakeholder working groups to develop targets and strategies for emission reductions. A climate symposium and several workshops resulted in UBC's vision on climate action:

Confronting the challenges of climate change, the University of British Columbia will advance solutions on campus that eliminate emissions, will accelerate efforts to respond to the impacts of climate change, and will partner locally and globally to demonstrate leadership and accountability to future generations.

The *Climate Action Plan* sets out actions in six areas that are the key sources of UBC's GHG emissions: Campus Development and Infrastructure, Energy Supply and Management, Fleets and Fuel Use, Business Travel and Procurement, Transportation and Food.

President Toope announced the *Climate Action Plan* targets on March 24, 2010, committing UBC to ambitious campus-wide GHG reductions. Set against a 2007 emissions baseline, GHG emissions at UBC will be reduced 33 per cent by 2015, 67 per cent by 2020, and 100 per cent by 2050.

UBC has defined the strategies that will help the University achieve its short-term target of 33 per cent reduction by 2015.

⁸ <http://www.sustain.ubc.ca/campus-sustainability/greening-the-campus/climate-action>

- Generating clean heat and electricity through the UBC Bioenergy Research and Demonstration Project will reduce GHG emissions by 12 per cent.
- Optimizing academic building performance and improving behaviour change programs will reduce GHG emissions by 10 per cent.
- Converting the district heating system from steam to hot water will reduce GHG emissions by 20 per cent.
- Transitioning to a low emission fleet will reduce associated GHG emissions by a targeted 40 per cent.

2.3.2 ENERGY

In 2009/2010, UBC Vancouver piloted the BC Hydro sponsored Continuous Optimization Program in four academic buildings. This program “re-tunes” building systems by identifying and implementing low-cost operational changes, and then maintains the energy savings through real-time management of building performance.

Program Impacts

- The buildings are connected to energy management software created by Pulse Energy, for real-time monitoring of thermal and electrical energy consumption and automated reporting.
- The software alerts Building Operations staff to quickly respond to alerts of abnormal energy use.
- Building occupants can view their energy consumption through a user-friendly dashboard interface and watch how the building’s energy use changes in real time.

2009/2010 Energy Achievements

- Completed energy audits in four academic buildings.
- Retrofitted lighting in the Fraser Parkade and West Parkade and conducted a lighting and mechanical system retrofit of the Thunderbird Winter Sports Stadium, which contributed to reductions in ancillary unit energy use

2.3.3 WATER

Campus and Community Planning’s Integrated Water Servicing Plan project developed water, sewer and stormwater models of the Vancouver campus. The Plan aims to:

- provide an analysis of the performance of UBC’s water, sewer and stormwater systems and identify any critical infrastructure upgrades
- illustrate the impacts on UBC’s water infrastructure by modeling the future 2030 buildout of the campus, as described in the *Vancouver Campus Plan* and land use documents
- predict impacts on resulting infrastructure needs by modeling three water management target scenarios with different potential targets (status quo, moderate sustainability initiatives and bold sustainability initiatives), to manage water use and demand
- propose alternatives for meeting future growth and development
- set the stage for integrated water planning, management and policy development

2.3.4 WASTE

In February 2010, the UBC Campus Sustainability Office awarded a contract to EBA Engineering Consultants Ltd. to conduct a Zero Waste Audit and Analysis of solid waste at the UBC Vancouver campus (institutional, private residential and construction waste) to be completed by October 31, 2010.

The final report for this contract will include:

- a Waste Characterization Study, based on three 24-hour samples
- analysis and Assessment of UBC's waste management systems
- recommended steps for UBC to achieve a 70 per cent waste diversion by 2015 and a long-term goal of zero waste

2.3.5 GREEN BUILDINGS

The provincial government mandate for all public sector buildings to achieve LEED Gold certification (or certified equivalent) has been in effect since May 2008. In 2009/2010, UBC added the additional requirement that new construction must also achieve an energy performance rating of 42 per cent below Canada's Model National Energy Code for Buildings. This additional requirement ensures that new projects will help achieve UBC's greenhouse gas reduction targets.

UBC has extended the LEED Gold mandate to major renovations (UBC Renew) with the Biological Sciences project, targeting LEED Gold with an energy performance rating of 42 per cent below Canada's Model National Energy Code for Buildings

2009/2010 GREEN BUILDING ACHIEVEMENTS

- The Centre for Interactive Research on Sustainability broke ground, and is aspiring to achieve the highest level of LEED certification, Platinum, as well as the Living Building Challenge.
- The new Law building, Bioenergy Research Centre, Earth Systems Science Building, Pharmaceutical Sciences Building and Tennis Centre got under way and registered under the LEED system with the Canada Green Building Council.
- As an alternative to LEED, UBC is piloting its Residential Environmental Assessment Program (REAP) to certify two student residence projects, one on each of the Vancouver and Kelowna campuses. Over the 2009/2010 fiscal year, four residential projects in the Wesbrook Place neighbourhood earned certification under UBC REAP: UBC Properties Trust's Wesbrook Village Supermarket project was completed and earned REAP Gold certification; MBA House and a faculty and staff rental building earned REAP Silver along with 'The Wesbrook', a high rise condominium project by Aspac Development.

2.3.6 SUPPLY MANAGEMENT

In 2008, Supply Management developed and implemented principles of sustainability and a supplier code of conduct for procurement. In 2009/2010, efforts have been focused on imbedding weighted criterion based on sustainability and including the supplier code of conduct into bid documents, and working directly with preferred suppliers on waste and emission management strategies.

2009/2010 Supply Management Achievements

- working with a major MRO (maintenance, repair and operations) supplier, UBC introduced a reusable tote system to deliver products to campus; through this initiative, 3,400 lbs of packaging were saved in one year;
- changed delivery dates to a standard ship date each week, which reduced emission to campus by 88 per cent;
- working with UBC's prime scientific supply vendor, Supply Management introduced a soft plastic recycling program into campus labs at both UBC Okanagan and the Vancouver campus; the volume of soft plastics is being tracked and monitored, in an effort to reach the goal of 70 per cent segregation in campus waste.

2.3.7 TRANSPORTATION

TREK Program Centre's sustainability highlights for 2009/2010:

- implemented an aggressive new bicycle parking policy requiring lockers, showers, washrooms and secure storage in all new development on campus; in 2010-2011 TREK increased bicycle parking capacity on campus by 400 spots, and put down 64 "sharrows" indicating shared pathways for cyclists;
- ran two Bike to Work Week events in 2009;
- conducted a feasibility study on implementing a bike share program on campus;
- the UBC TREK Program Centre and Campus and Community Planning completed the first phase of the Transit and Cycling Transportation Consultation in March of 2010, aimed at determining the location of future transit and cycling infrastructure on campus;
- identified 20 ambitious new actions that will help UBC achieve its recently released greenhouse gas reduction targets; actions range from providing plug-ins for electric assist vehicles and re-evaluating parking policies, to discouraging car ownership by first year students living on campus.

2.4 ECONOMIC

2.4.1 FINANCE

The University entered the 2009/2010 year with a structural budgeted operating deficit of \$18 million, relating to the Vancouver campus. As a result of favourable activities, such as higher enrolment and prudent use of contingency spending, the University eliminated the operating deficit and ended the year with a balanced operating budget.

UBC developed a balanced operating budget for 2010/2011, a result of significant change in the planning culture at the Vancouver campus, specifically:

- administrative budgets, which are now subject to a rigorous review on an annual basis (historical budget allocations to units had been incremental from year to year);
- distribution of costs, such as benefits, to operational units, reflecting a transfer of financial responsibility and risk from the centre to the operational units.

In 2009/2010, the University Board of Governors also approved a revised Endowment policy. Changes included capital preservation requirements, reduced spending rates to protect the

future value of endowments, and a new process to reduce spending for endowments which had fallen below their original contribution value.

UTown@UBC and the Endowment

To date, family housing has contributed \$282 million towards UBC's Endowment Fund. The Endowment Fund allows UBC to give scholarships and bursaries to outstanding students, provide professorships to faculty and support researchers whose discoveries change lives.

2.5 COMMUNICATIONS AND OUTREACH

2.5.1 WWW.SUSTAIN.UBC.CA WEBSITE

In January 2010 UBC launched the first integrative sustainability website at a university. The new website features the three distinct areas of sustainability at UBC: Teaching and Learning, Research and Campus Operations. The website offers robust features such as an interactive course listing that is connected to the Student Information Systems curriculum database, twitter and online social media feeds, a listing of expert sustainability faculty, a dynamic feature story area. The website also 'pulls' sustainability-related events directly from UBC events, so any events the community adds that are categorized with sustainability will appear on both websites. The site was built collaboratively with representation and resources dedicated from Office of the President, Office of the Vice President International and Research, Public Affairs, the Campus Sustainability Office, and the Teaching and Learning Office.

2.5.1 SOCIAL MEDIA MARKETING PLAN

To coincide with the launch of the website strategic marketing goals were set to raise awareness about sustainability at UBC. Hoggan and Associates was contracted to help meet those objectives. Working with Public Affairs and the in-house communications team at Campus and Community Planning social media components (blogs and twitter feed) were integrated into the new website. These components supported a broader media engagement campaign that culminated with the announcement of aggressive GHG reduction targets for UBC at Globe 2010.

3. Future Priorities 2010/2011

3.1 POLICY GOVERNANCE

Sustainability Plan (2011-2015): After five successful years, *Inspirations & Aspirations: the Sustainability Strategy 2006-2010* runs its course. Starting in 2010, UBC will evaluate lessons learned from *Inspirations & Aspirations* and develop a new Sustainability Plan for the Vancouver campus. It is envisioned that this plan will integrate UBC's sustainability targets and support operational efforts to address social, ecological and economic sustainability.

3.2 SOCIAL

The Sustainability Academic Strategy acknowledges that:

Sustainability is fundamentally about changing the way individuals and organizations make decisions and act. Targeted organizational and behavioural change programs are as important to resource conservation as technological and policy changes.

The UBC *Climate Action Plan* identified behaviour change initiatives as instrumental to creating a culture of sustainability and achieving a more sustainable campus. The UBC Executive prioritized a student-centered resource competition as an early action item to emerge from the draft UBC *Climate Action Plan*, which Campus and Community Planning presented to the Executive in September 2009.

Collaborating with key stakeholders, the CSO is working to coordinate the design and implementation of a resource conservation competition for first year student residences, to be launched in the fall semester of 2010. The purpose of the competition is to:

- Reduce consumption of campus resources (water, electricity and steam).
- Engage students in sustainability learning and practice.
- Measure the impact of real time monitoring and the use of promotions and incentives to reduce the consumption of resources.

Competition impacts will be measured in terms of consumption reduction, cost savings, and results of real-time monitoring and incentives on behaviour. Supported by web-based 'dashboard' software, student residents will be able to compare real-time and historical energy and water consumption for the six building Totem Residences.

3.3 ECOLOGICAL

In the ecological area, transformative planning exercises will position UBC as a leader in sustainability. These plans will develop ambitious short, medium and long-term sustainability targets that will feed into the next Sustainability Strategy.

UBC will also:

- Create a comprehensive Solid Waste Management Action Plan based on the results of the Zero Waste Audit and Analysis, propose waste reduction targets and identify the necessary steps to achieve them.

- Create a comprehensive Water Management Action Plan by analysing current water practices and developing ambitious conservation targets through long-range planning for water, sewer and stormwater management.
- Extend energy management from the core academic campus to the broader University communities; a community energy manager will be tasked with developing and implementing a community energy and emissions plan for UTown@UBC.

4. Measures of Sustainability (2009/2010)

Selected Measurements for Model Campus and Campus Engagement Based on Data Collected for the Period 2009/2010

Model Campus	Result (trend data where available)
<p>Reduce Pollution</p> <p>Reduce CO₂ and equivalent emissions from institutional and ancillary buildings from 2000 levels (adjusted for growth)</p>	<p>2005-2006 – 22% reduction 2006-2007 – 24% reduction 2007-2008 – 26% reduction 2008-2009 – 22% reduction 2009-2010 – 25% reduction</p>
<p>Maintain daily automobile traffic at or below 1997 levels (absolute reductions)</p>	<p>2005-2006 – 24% reduction 2006-2007 – 22% reduction 2007-2008 – 20% reduction 2008-2009 – 18% reduction 2009-2010 – 19% reduction</p>
<p>Reduce daily single occupant vehicle trips (SOV) from 1997 levels (absolute reductions)</p>	<p>2005-2006 – 18% reduction 2006-2007 – 12% reduction 2007-2008 – 14% reduction 2008-2009 – 6% reduction 2009-2010 – 13% reduction</p>
<p>Conserve Resources</p> <p>Reduce non-renewable energy consumption in institutional buildings by 30% (adjusted for growth) from 2000 levels</p>	<p>2005-2006 – 17% reduction 2006-2007 – 23% reduction 2007-2008 – 26% reduction 2008-2009 – 25% reduction 2009-2010 – 25% reduction</p>
<p>Reduce water consumption in institutional and ancillary buildings by 40% (adjusted for growth) from 2000 levels</p>	<p>2005-2006 – 34% reduction 2006-2007 – 42% reduction 2007-2008 – 40% reduction 2008-2009 – 29% reduction 2009-2010 – 37% reduction</p>
<p>Divert 55% of annual operational waste from the landfill (by 2010)</p>	<p>2005-2006 – 41% reduction 2006-2007 – 46% reduction 2007-2008 – 44% reduction 2008-2009 – 39% reduction 2009-2010 – 44% reduction</p>
<p>Livable Campus</p> <p>Maintain the Land Use Plan goal that 20% of new residential dwellings will be rental housing, of which not less than half will be non-market housing that may include staff, faculty, cooperative, social, or other special housing needs.</p> <p><i>(Objective originally from the UBC Land Use Plan (formerly Official Community Plan 4.1.16 (b))</i></p>	<p>2005-2006 – 39% 2006-2007 – 28% 2007-2008 – 26% 2008-2009 – 29% 2009-2010 – 38%</p>

<p>Livable Campus</p> <p>Work to maintain that not less than a 25% ratio of housing is provided specifically for full-time undergraduate students.</p> <p><i>(Objective originally from the UBC Land Use Plan (formerly Official Community Plan 4.1.14 (a))</i></p>	<p>2007-2008 – 29.1% 2008-2009 – 29% 2009-2010 – 29%</p>
<p>Space Utilization</p> <p>Increase space utilization by at least 5% from 2000 levels (UBC-V)</p>	<p>2005-2006 – 2.5 % 2006-2007 – 4% 2007-2008 – 5.5% 2008-2009 – 6.5% 2009-2010 – 7.5%</p>

<p>Campus Engagement</p>	
<p>Support and engage staff, faculty and students in sustainability learning, practice and leadership development</p>	<p>2004-2005 – 364 SEEDS participants, 44 papers 2005-2006 – 344 SEEDS participants, 50 papers 2006-2007 – 398 SEEDS participants, 64 papers 2007-2008 – 500 SEEDS participants, 69 papers 2008-2009 – 600 SEEDS participants, 91 papers 2009-2010 – 627 SEEDS participants, 151 papers 2000–2009 – over 3,000 participants, 500 SEEDS projects</p>
<p>Demonstrate and recognize sustainable practices in the workplace and in student living</p>	<p>2004-05: 140 Sustainability Coordinators 2005-06: 140 Sustainability Coordinators 2006-07: 141 Sustainability Coordinators 2007-08: 146 Sustainability Coordinators 2008-09: 150 Sustainability Coordinators 2009-10: 150 Sustainability Coordinators 2009-2010: involved 25 undergraduate and graduate students; conducted outreach to 2,900 students</p>
<p>goBeyond</p>	<p>2009-10</p> <p>1,475 people directly engaged through presentations, events, and taking challenges</p> <p>1,000 students reached through teach-ins alone (20 instructors x ~50 students per class)</p>