







20-YEAR SUSTAINABILITY STRATEGY FOR THE UNIVERSITY OF BRITISH COLUMBIA

VANCOUVER CAMPUS











a place of mind The university of british columbia

sustainability



2014



ACKNOWLEDGEMENT

Memorandum of Affiliation

In 2006, the University of British Columbia and Musqueam Indian Band signed a Memorandum of Affiliation to "formalize, expand and enhance the working relationship between the parties, and to set forth the principles, objectives and process for the planning and development of specific educational, community and research programs that capitalize on the respective strengths of the parties." The University of British Columbia (UBC) acknowledges that its Vancouver campus is located on unceded, traditional x^wmə θ k^wəỳəm (Musqueam) territory. The x^wmə θ k^wəỳəm people have been present in their traditional territory, which includes all of present-day Vancouver, the University Endowment Lands, and surrounding areas, since time immemorial (archaeological records show occupation in the territory for over 9,000 years). The main winter village, now known as Musqueam Indian Reserve #2, is located south of Marine Drive near the mouth of the Fraser River. The name x^wmə θ k^wəỳəm means place of mə θ k^wəỳ and relates to the mə θ k^wəỳ, a flowering plant, which grows in the Fraser River estuary in the tidal flats and marsh lands.

The territory was once rich in natural resources and Musqueam people moved throughout the territory to fish, hunt, trap and gather. In return for this abundance, the people were and still are the keepers of the lands and waters that sustain them. Today, the Musqueam people still use many of these resources for economic and traditional purposes.

As they have been stewards of this unceded, traditional territory since time immemorial and presently hold lands adjacent to UBC campus, UBC works with Musqueam First Nation to ensure they are partners in the pursuit of sustainability.

ni? ct xixátamat ta na tamaxw. We are caring for this land.



About UBC

The University of British Columbia is a global centre for research and teaching, consistently ranked among the 40 best universities in the world.

Since 1915, UBC's West Coast spirit has embraced innovation and challenged the status quo. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning. At UBC, bold thinking is given a place to develop into ideas that can change the world.

For more UBC facts visit ubc.ca/facts.



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VISION

At UBC's Vancouver campus, sustainability means simultaneous improvements in human and environmental wellbeing, not just reductions in damage or harm. By 2035, such regenerative sustainability is embedded across the University throughout teaching, learning, research, partnerships, operations and infrastructure, and the UBC community. UBC is a vibrant, healthy and resilient community, deeply engaged with its neighbours, surrounding region, partners around the world, and in a supportive and mutually respectful relationship with the Musqueam people.



DESCRIPTION OF SUCCESS

Campus as a Living Laboratory

UBC faculty, staff and students, working with private, public, NGO and community partners, use the UBC campus, and its operational, educational and research capabilities, as a living laboratory, to test, study, teach, apply and share lessons learned, technologies created and policies developed.

Agent of Change

As an agent of change, the University aspires to teach future sustainability leaders, and also to work with private, public, NGO and community partners to learn together how to foster sustainability in the larger world outside the campus. UBC is a leader in a global network of post-secondary institutions that have turned their campuses into research, development and demonstration sites for sustainable behaviour, infrastructure and community. The University works with partners in the private, public and NGO (non-governmental organization) sectors and the community, to jointly learn lessons about sustainability and share innovative, regenerative practices on and beyond the campus. In this way, UBC and other campuses around the world act as living laboratories, advancing sustainability scholarship, and implementing and teaching sustainability in ways that allow them and their nonacademic partners to become agents of change around the world.

These actions influence sustainability practices around the world. In support of these processes, UBC continues to build on sustainability successes in its operations and communities, to research the problems, barriers and issues involved in implementing such practices successfully on campus and off, and to prepare students with sustainability knowledge and skills.



OVERVIEW

UBC Community

The UBC community refers to residents of neighbourhoods on UBC's Vancouver campus, including students, faculty, staff and non-affiliated residents, as well as non-residents who work or study on campus. UBC embraces sustainability as a societal conversation about the kind of world we live in, informed by an understanding of the ecological, social and economic consequences of our individual and collective actions.

The University believes in sustainability because it is necessary as the ecological and human consequences of unsustainability are devastating; it is the right thing to do ethically and in terms of distributive justice; and, it is desirable in itself, offering the possibility of a better life for people and the planet.

As part of UBC's commitment to sustainability, this strategy was developed in consultation with the community, including students, faculty, staff, campus residents, the University Neighbourhood Association (UNA), the Musqueam First Nation and external community partners, in order to guide our future efforts towards not only a more sustainable university, but a more sustainable world.



Purpose

The purpose of the 20-year Sustainability Strategy is to provide a document outlining UBC's sustainability vision and aspirations, and in so doing set the long-term direction towards a more sustainable university. It builds on UBC's Sustainability Academic Strategy (SAS) (2009), a mid-level plan under Place and Promise, UBC's Strategic Plan, and it is intended to guide decision-making at UBC's Vancouver campus with regard to sustainability.

The strategy is a living document, periodically updated to reflect new discoveries, innovative practices, changing environmental conditions and stakeholder preferences.

Scope

The strategy addresses how sustainability will be advanced across the following three components: 1) teaching, learning and research, 2) operations and infrastructure and 3) UBC community.

Several cross-cutting themes serve as guiding principles: partnerships, integration, campus as a living lab, and university as an agent of change off-campus. To this are added two key concepts, human and environmental wellbeing, which are infused throughout.

The strategy was developed for UBC's Vancouver campus, in the spirit of respectful collaboration with the Musqueam First Nation. It is nonbinding on the UNA, yet opens possibilities for further co-operation on specific initiatives that may be replicated by either party or the wider community.



Description of Success in 2035

Sustainability is integrated throughout UBC teaching, learning and research activities. Students are provided with knowledge, skills and experience enabling them to serve as agents of change, community leaders and responsible global citizens.

As the result of continual improvement and flexible and adaptive learning, UBC is recognized for transformative scholarship of teaching and learning in sustainability.

UBC excels across the spectrum of fundamental and applied sustainability research, addressing issues at multiple scales and in multiple communities. At the campus scale this leads to innovative exchanges that improve UBC's environmental and human wellbeing, and connect UBC's living lab to campus operations and external agent of change activities. UBC researchers are also actively engaged in research contributing to addressing sustainability issues in many other communities and jurisdictions.

Strategic Goals

- The University's curriculum is transformed, with every undergraduate student able to pursue a pathway in sustainability. UBC is internationally renowned for its many world-class graduate programs, which address the full range of ecological, social and economic dimensions of sustainability.
- 2. UBC is a preferred destination for undergraduate and graduate students, postdoctoral fellows, visiting scholars, and professionals who wish to develop trans-disciplinary or more specialized skills in sustainability.
- 3. UBC's sustainability research and scholarship excellence plays an important role in faculty and staff recruitment and retention.
- 4. The University operates internationally recognized centres of excellence formed in response to critical societal needs and which advance trans-disciplinary and crosscutting sustainability research, linking it to on and off campus partners.

TEACHING, LEARNING AND RESEARCH

Sustainability Learning Pathway

A Sustainability Learning Pathway is a collection of sustainability-oriented courses and experiences that students pursue alongside their disciplinary major. Pathways may be integrated within existing programs, or offered as a separate entity such as a minor.

Target

Provide each student, regardless of their degree program, with access to sustainability education.

Select Accomplishments

As of 2014, UBC offers 509 sustainability-focused and sustainability-related courses, with 14.5% of total faculty involved in sustainability research. 86 SEEDS projects involved faculty, staff and students in identify solutions to sustainability challenges oncampus.



OPERATIONS AND INFRASTRUCTURE

Sustainability Lens

A sustainability lens is a set of decision-making tools and processes used to evaluate the social, environmental and financial implications of operational decisions.

Select Targets

UBC's Vancouver campus set bold targets to reduce GHG emissions (relative to 2007 levels) and committed to:

33% reduction by 2015 67% reduction by 2020 100% reduction by 2050

Select Accomplishments

In 2013, UBC's Vancouver campus achieved a 14% reduction in GHG emissions compared to 2007 levels.

Description of Success in 2035

UBC has internalized sustainability as a planning and implementation imperative across all campus operations and infrastructure. The focus has long since shifted from damage limitation and harm reduction to the creation of net positive outcomes in environmental, social and economic terms. A strong emphasis on human and environmental wellbeing is built directly into the operational mandate.

The University embraces an adaptive approach to long-term operational planning. This recognizes the unique ecological characteristics of UBC's Vancouver campus, the environmental and social impacts of our activities, and complexity and uncertainty associated with global and regional environmental, social and economic conditions. Such an approach permits the development of operational plans that enable UBC to be resilient and respond quickly and effectively to changes in external circumstances.

UBC is a thriving living lab, treated as a societal test-bed, engaging partners from the private, public, NGO (non-governmental organization) sectors, and the community, including First Nations, and working with university staff, students and faculty in testing innovations and real world solutions on campus.

Strategic Goals

- 1. A sustainability lens is applied to operational decision-making at UBC.
- 2. The integration of campus-scale energy, water, waste, and food systems is linked to improved quality of life for students, staff, faculty and campus community and to enhanced ecological integrity.
- 3. UBC continuously and iteratively improves sustainability practices through meaningful community and stakeholder engagement, collaboration and scenario analysis, directed at reaching solutions.
- 4. The built environment demonstrates regenerative design and operation throughout the UBC community.
- 5. Effective strategic partnerships are in place, leading to the development and application of real world solutions to sustainability challenges; UBC is a key contributor to dozens of such processes locally and around the world.



Description of Success in 2035

The Vancouver campus community is a model of a vibrant, complete, sustainable community at an urban neighbourhood scale. The UBC community reflects and promotes strong sustainability values related to human and environmental wellbeing.

UBC, in partnership with the UNA, has transformed from a commuter campus to a live-work-learn community. Many off-campus partners work with campus residents, UBC staff, faculty and students in implementing and deriving lessons from this successful sustainable community living lab experiment.

The University is a resilient and engaged community that addresses change collectively and collaboratively. Intercultural fluency, diversity and equality are fully integrated into UBC's social sustainability efforts.

Strategic Goals

- The campus housing and community development policies enable diverse and more affordable housing options for faculty, staff and students reducing commuting and financial stress, and supporting the development of a compact, complete and adaptive community.
- 2. Integration of social sustainability demonstrates improvements in health, productivity and quality of life of the UBC community.
- 3. Innovative engagement programs strengthen linkages across the campus to generate a sense of place and support the creation of a vibrant, animated, and sustainable live-work-learn community.
- 4. UBC is a universally accessible and automobile-restrained community and is a leader in utilizing alternative modes of transportation.
- 5. UBC models a sustainable and integrated food system that equally values environmental, social, and economic outcomes and assesses the impacts of food production, transformation, and consumption on environmental, personal, and community health.

UBC COMMUNITY

Intercultural Fluency

The combination of attitudes towards diversity, knowledge about cultures and difference, and interpersonal skills that contribute to one's capacity for communication and relationshipbuilding across different cultures.

Select Targets

Aspire to provide capacity to house up to 50% of full-time students.

Aspire to build up to 30% of all new housing on campus as rental, subject to market demand.

Select Accomplishment

In 2013-2014, provided capacity to house 30% of 2010 full-time students (10,041 beds).

John Robinson, Chair of Steering Committee Associate Provost, Sustainability

Marko Pajalic, Committee Facilitator UBC Sustainability Initiative

STUDENTS

Collyn Chan Alma Mater Society (AMS)

Amy Jiang Common Energy

Paul Save Graduate Student Society (GSS) / BC Sustainable Energy Association

Katya Sen Commerce Undergraduate Society Sustainability / Sauder Philanthropy Program

FACULTY

STEERING

COMMITTEE

Daniel Heath Justice Faculty of Arts Tara Ivanochko Faculty of Earth, Ocean and Atmospheric Sciences Susan Nesbit Faculty of Applied Science Andrew Riseman Faculty of Land and Food Systems James Tansey Sauder School of Business

STAFF

Alex Bayne Human Resources

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John Metras Infrastructure Development

Victoria Wakefield Student Housing and Hospitality

COMMUNITY PARTNERS

Leona Sparrow / Jessica Lea Carson Musqueam First Nation

Ralph Wells University Neighbourhood Association

EXTERNAL PARTNERS

Anne Murray Vancouver International Airport Amanda Pitre-Hayes / Sean Pander City of Vancouver Peter Robinson David Suzuki Foundation Victoria Smith BC Hydro (until November 2013)

20-YEAR SUSTAINABILITY STRATEGY ENGAGEMENT PROCESS OVERVIEW

Beginning in Fall of 2013, UBC began a comprehensive 8 month process to develop a strategy for next generation sustainability at UBC's Vancouver campus. The process directly engaged over 2,000 people and helped inform the 20-year Sustainability Strategy.

Steering Committee

UBC convened a Steering Committee of 21 members, including, faculty, staff, students and community members, chaired by the Associate Provost, Sustainability, in order to steer the engagement process, consider community feedback and draft the strategy. The composition of the Committee provided a broad and diverse range of perspectives and expertise across teaching, learning and research, operations and infrastructure and community pillars.

The Steering Committee was supported by an Internal Working Group which operationalized the engagement process and implemented Steering Committee recommendations.

Communication and Engagement Activities

Outreach	Feedback Gathering	
Digital communications	Stakeholder meetings	
Community booths	Online survey, including mobile and kiosk deployment	
Presentations		
Campus media	In-person workshops	
F	Open houses	

Engagement Achievements

- Over 2,000 people directly engaged
- 800 in-person engagement touch-points
- 1,368 total online feedback submissions indicating overall support for the vision (participant distribution: 64% students, 26% staff, 8% faculty, 2% others)
- 3 integrated faculty and staff workshops with total of 100 participants
- Sustainability Coordinators (staff) and Sustainability Ambassadors (students) workshops
- 2 open houses for on-campus and neighbourhood communities
- 3 community booths at major campus events
- 10+ presentations to undergraduate and graduate students councils and groups, the UBC staff association, the neighbourhood association, and at several community events, including the UBC Farm Symposium and the Student Leadership Conference
- 5,200 visitors to the project webpage

APPENDIX

SUSTAINABILITY MILESTONES

For additional information visit: <u>sustain.ubc.ca/milestones</u>



SUSTAINABILITY TARGETS

For additional information visit: <u>sustain.ubc.ca/reporting</u>

Select Targets	Target Year
Greenhouse Gas Emissions	
33% reduction*	2015
67% reduction*	2020
100% reduction*	2050
*Relative to 2007 levels	
Waste	
70% overall waste diversion	2016
80% overall waste diversion	2020
Achieve a steadily decreasing trend in operational waste disposed to landfill/incineration despite forecasted campus growth.	Ongoing
Transportation	
Reduce single occupancy vehicle trips and enable and promote sustainable modes of transportation.	Ongoing
Green Buildings	
LEED/REAP Gold certification mandatory for all new buidlings and major renovations.	Ongoing
Energy Use Intensity targets required for new building projects.	Ongoing
Community	
Aspire to provide capacity to house up to 50% of full-time students.*	Ongoing
Aspire to build up to 30% of all new housing on campus as rental, subject to market demand.	Ongoing
*Calculated using the number of full-time students in 2010.	
Teaching, Learning, and Research	
Provide each student, regardless of their degree program, with access to sustainability education.	Ongoing

APPENDIX

SUSTAINABILITY ACCOMPLISHMENTS

For up-to-date information visit: <u>sustain.ubc.ca/reporting</u>

For a list of UBC's sustainability awards visit: <u>sustain.ubc.ca/awards</u>

Select Accomplishments (part 1 of 2)

Greenhouse Gas Emissions (2013)

Achieved a 14% absolute reduction in GHG emissions compared to 2007 levels.

Water (2013/2014)

Achieved a 35% absolute reduction in water consumption in institutional buildings compared to 2000.

Waste (2013/2014)

Achieved 61% overall waste diversion rate.

Transportation (2013/2014)

71% of trips by sustainable modes of transportation (transit, carpool, walking, cycling).

Achieved decreases in auto-trips and parking spaces despite increases in daytime population and number of residents.

Housing and Amenities (2013/2014)

Continued implementation of Housing Action Plan to improve housing affordability and choice on the Vancouver campus for faculty, staff, and students.

Provided 10,041 student beds, providing capacity for 30% of 2010 full-time students.

Green Buildings (2013)

23 LEED* Projects (8 certified, 15 registered) 27 REAP** Projects (20 certified, 7 registered)

* Leadership in Energy and Environmental Design (LEED)

** Residential Environmental Assessment Program (REAP)

SUSTAINABILITY ACCOMPLISHMENTS

Select Accomplishments (part 2 of 2)

Engagement (2013/2014)

Continued the Sustainability Coordinators program for offices with over 80 coordinators across various departments and expanded program into labs.

Completed 86 SEEDS projects, involving 896 students, faculty and staff in applied sustainability research projects on campus.

Continued strategic sustainability partnerships with BC Hydro, City of Vancouver, Modern Green and the University Neighbourhoods Association.

Facilitated the Regional Sustainability Council comprised of 24 members from leading organizations in the region.

AMS Sustainability Projects Fund awarded over \$150,000 for student led projects since 2011.

Teaching, Learning and Research

14.5% of total faculty involved in sustainability research (2010/2011).

509 sustainability-focussed and sustainability-related courses.

More than 40 undergraduate, graduate and professional programs that allow students to orient their studies to sustainability.

Health and Wellbeing

Healthy UBC Initiatives continue to grow with aim to promote individual and organizational changes and create a healthy, sustainable workplace at the University.

The Alma Mater Society (AMS) at UBC's Vancouver campus continues to support students by creating safe spaces on campus, through services such as the Health and Dental Plan, Volunteer Avenue, Speakeasy, Safewalk and Student Resource Groups. The AMS also actively funds student research regarding health and wellbeing on campus through the AMS Impact Grant.

PHOTO CREDITS

Acknowledgment page: Contribution by Musqueam First Nation Page 2: Hover Collective Remainder of photographs used: Don Erhardt, Martin Dee

To learn more about sustainability at UBC visit sustain.ubc.ca





a place of mind The university of british columbia

sustainability