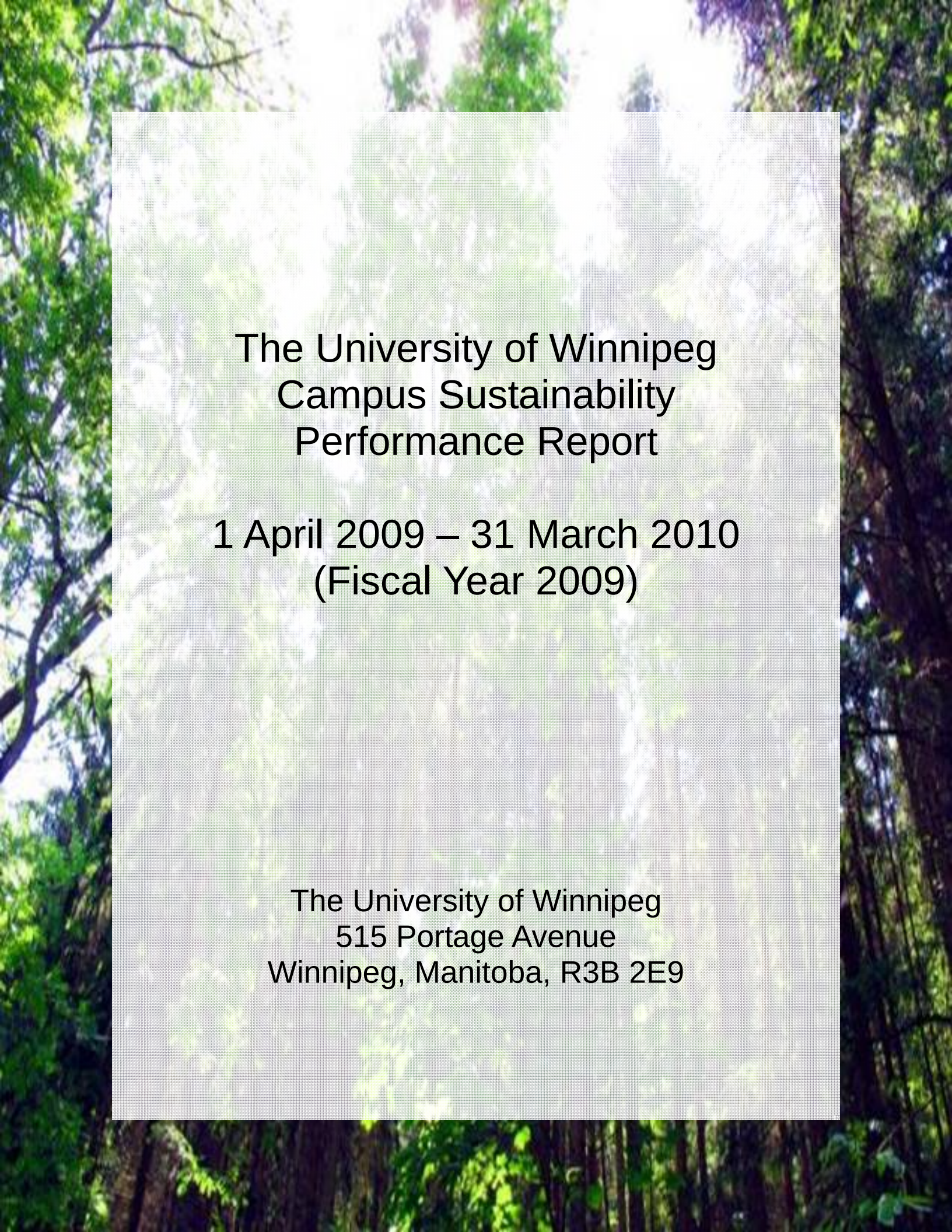

The University of Winnipeg Campus Sustainability Performance Report

1 April 2009 – 31 March 2010 (Fiscal Year 2009)

The University of Winnipeg
515 Portage Avenue
Winnipeg, Manitoba, R3B 2E9

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INTRODUCTORY

The data reported below reflect the as yet incomplete development of the University's sustainability reporting system. The performance report below is organized by policy area and subject to the scope of the Campus Sustainability Policy.

Scope

The scope of the Sustainability Management System, and hence the scope of this report, includes:

1. All physical facilities and buildings owned and managed by The University of Winnipeg including all future acquisitions of real properties which come to be owned and managed by the University.
2. All physical facilities and buildings, or spaces within facilities or buildings, leased or rented by The University of Winnipeg, and over which the University can reasonably influence the sustainability performance of the facility.
3. All routine activities, programs and operations of The University of Winnipeg, whether on or off campus, and including staff, faculty and student travel, both directly on behalf of the University in conducting its operations and programs, or commuting of staff, faculty and students to and from their places of residence for purposes of work, teaching, research, study, recreation or any other University activity.
4. All activities, programs or special events which may from time to time be hosted by The University of Winnipeg, or for which the University may provide physical facilities, active partnerships, or other support when such programs or events are offered by institutions, groups, corporations or organizations that are not formally recognized as part of the University community.
5. All "arms length" agencies, corporations, institutes, research centers or other entities, to which University policies may generally apply.

Reporting Period

This report is for the period 1 April 2009 to 31 March 2010 (FY2009).

For more information about The University of Winnipeg's Sustainability programs, contact the Campus Sustainability Office.

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2009 HIGHLIGHTS

The University of Winnipeg continues to work towards its target of achieving Kyoto compliance by December 31, 2012. Two major projects initiated at the University in FY2009—a comprehensive facilities audit of core buildings and the installation of a hybrid heating system—promise to bring the University within reach of this target. Ongoing campus expansion remains a significant challenge in view of absolute resource use reduction goals. The University's current rate of growth is not a long term trend, and the University remains committed to achieving its goals through significant retrofit work in existing buildings and ongoing programming to support students, faculty and staff in making more sustainable choices. Waste management is an ongoing concern, in part because of industry-level problems achieving reliable waste data. The University can expect significant improvements in its water use performance in FY2010, owing to a washroom retrofit project launch in FY2009.

Aggregate Indicator	**FY2007**	**FY2008**	**FY2009**	**% change over FY2008**
Total Area Under Management (sq. m)	91,750	92,950	101,169	+ 8.84%
Total Energy Consumed KwHe (Goal: Decrease year over year)	32,253,322	30,507,144	34,158,051	+ 11.97%
% Renewable Energy (Goal: Increase annually to 100%)	43.80%	41.00%	43.04%	+ 4.98%
% Waste Diverted from Landfill (Goal: Increase annually to 100%)	54.80%	45.50%	35.50%	-21.98%
Total Organic Materials Composted in Tonnes (Goal: Increase annually to total of all organics available.)	1.5	11.1	13.5	+ 21.62%
Total Water Consumed in Liters (Goal: Constant or declining)	NA	80,113,761	74,714,597	-6.74%
Total GHG Emissions Tonnes CO_2e (Goal: Decline to zero)	3,937.00	4,139.00	4,327	+ 4.54%
GHG Emission Reduction needed to meet Kyoto Protocol Target in Tonnes CO_2e (to be reviewed)	533	735	923	+ 25.58%

2009 HIGHLIGHTS

Key 2009 Initiatives and Achievements

- Sustainability principles incorporated into new Board purchasing policy.
- Sustainability responsibilities included in management position descriptions.
- Contract finalized to install hybrid heating system.
- Request For Proposal process completed to begin campus-wide sustainability audit.
- Feasibility Study completed for a proposed Materials Conservation Centre.
- Ongoing work on Bike Station/Bike Lab.
- Washroom retrofit project launched, which promises to reduce water consumption by over 4,536,634 litres of potable water

Key Challenges

- Increasing footprint of University is working against GHG, energy, and water-use reduction goals.
- Tracking of all sustainability-related procurement indicators remains difficult to achieve in the absence of supporting procedures and policies. Limited human resources restrict the University's ability to establish these.
- Inconsistent and unreliable waste data.
- Establishing incentives for faculty and students to take up campus-based sustainability research is difficult.
- Increasing campus-sustainability related experiential learning opportunities for students remains a high priority but is difficult to realize given limited CSO staffing resources.

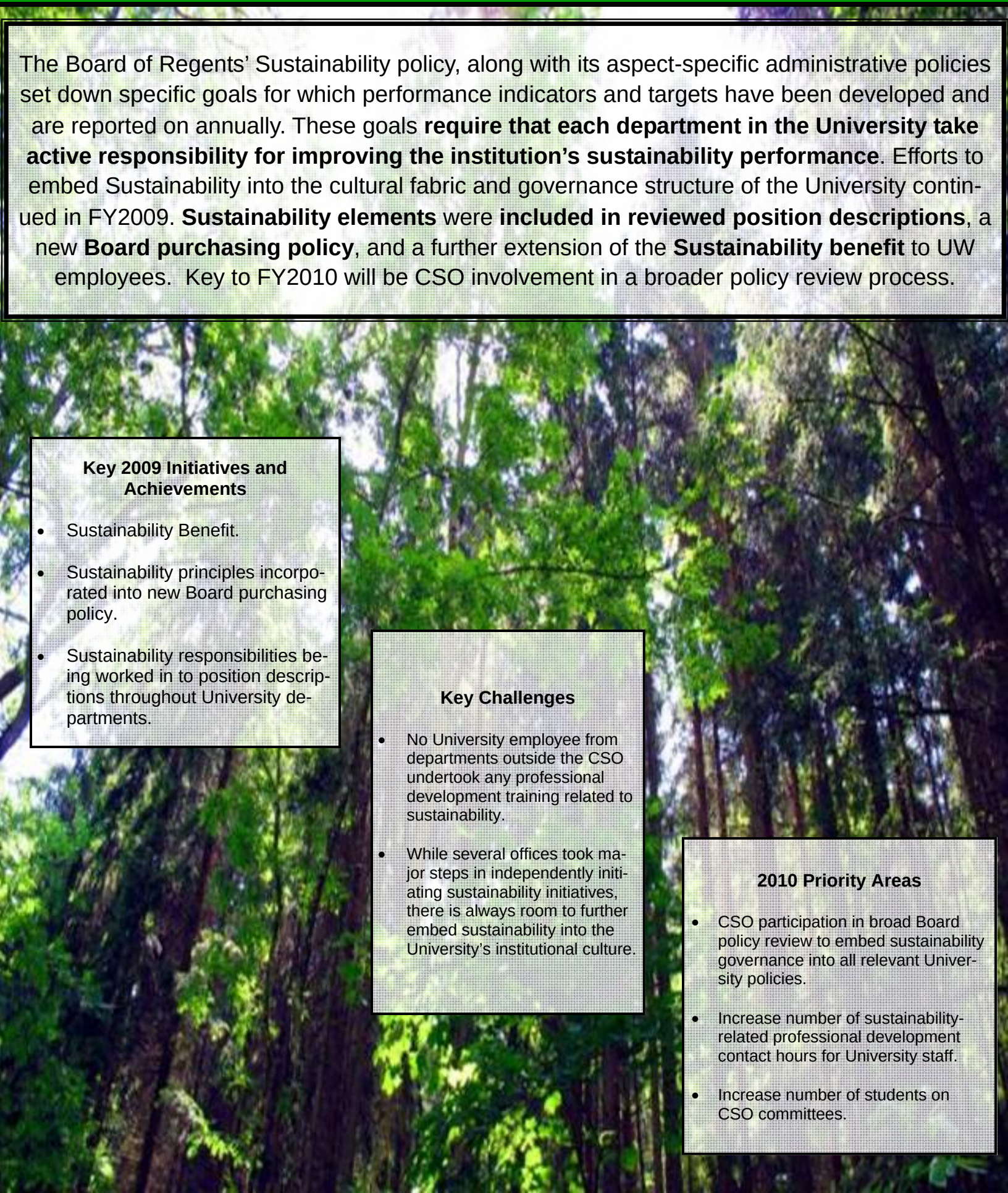
2010 Priority Areas

- Review GHG calculations and benchmarks to comply with provincial reporting scope and standards.
- CSO participation in broad Board policy review to embed sustainability governance into all relevant University policies.
- Incorporating sustainability principles in new procurement administrative policies and procedures.
- Establish travel-reduction strategies in conjunction with introduction of Cisco TelePresence virtual meeting systems.
- Installation of hybrid heating system & monitoring of resulting GHG and cost savings.
- Carrying out of campus-wide sustainability audit and development of implementation plan based on audit recommendations.
- Monitor performance of new LEED Silver buildings to verify energy model projections.
- Bike lab/station construction.
- Increase sustainability-related professional development contact hours for University staff.
- Increase sustainability-related social marketing.

GOVERNANCE

"Tell me, I'll forget. Show me, I may remember. But involve me and I'll understand."
~Chinese Proverb ~

The Board of Regents' Sustainability policy, along with its aspect-specific administrative policies set down specific goals for which performance indicators and targets have been developed and are reported on annually. These goals **require that each department in the University take active responsibility for improving the institution's sustainability performance**. Efforts to embed Sustainability into the cultural fabric and governance structure of the University continued in FY2009. **Sustainability elements** were **included in reviewed position descriptions**, a new **Board purchasing policy**, and a further extension of the **Sustainability benefit** to UW employees. Key to FY2010 will be CSO involvement in a broader policy review process.



Key 2009 Initiatives and Achievements

- Sustainability Benefit.
- Sustainability principles incorporated into new Board purchasing policy.
- Sustainability responsibilities being worked in to position descriptions throughout University departments.

Key Challenges

- No University employee from departments outside the CSO undertook any professional development training related to sustainability.
- While several offices took major steps in independently initiating sustainability initiatives, there is always room to further embed sustainability into the University's institutional culture.

2010 Priority Areas

- CSO participation in broad Board policy review to embed sustainability governance into all relevant University policies.
- Increase number of sustainability-related professional development contact hours for University staff.
- Increase number of students on CSO committees.

GOVERNANCE

At a Glance

The Board of Regents' Sustainability policy, along with its aspect-specific administrative policies (Air Quality, Energy Use, Land Use and Property Management, Materials Use, Procurement, Risk Management and Emergency Response, Transportation, Water Use) form the core of the University's Sustainability Management System (SMS). These policies set down specific goals, for which performance indicators and targets have been developed. These indicators are included in relevant sections throughout this report.

The goals set down in the sustainability policy require that each department in the University take active responsibility for improving the institution's sustainability performance. These goals include:

- To integrate environmental, social and economic considerations in all aspects of management decision-making.
- To establish decision-making processes, policies and procedures for sustainability which encourage participation by all those affected by the decisions made.
- To equip students with the skills and knowledge, and encourage research and scholarship, that will enable people to actively contribute to a more sustainable world.

The Campus Sustainability Office provides leadership, coordination, and support to departments throughout the University while also initiating its own projects. The CSO therefore has a role to play in several administrative and operational files of the institution. It also has a role to play in the academic life of the University.

Driving sustainability into the daily operations of the University is the ultimate goal of the Campus Sustainability Initiative, so that sustainability becomes an organization-wide lens through which all decisions are made. This requires developing particular sets of capabilities among University staff and ensuring that disparate sustainability-related efforts become a cohesive set of coordinated initiatives.

The CSO's multi-stakeholder Sustainabilty Council, Working Groups, and Campus Sustainability Representatives enable coordination across departments in sustainability planning and ensure that SMS development and CSO initiatives can integrate into the University's fabric.

Efforts to embed Sustainability into the cultural fabric and governance structure of the University continued in FY 2009. The University's Sustainability Benefit was extended to eligible UWFA-Collegiate employees. Sustainability principles were included in a new Board policy on procurement. Position descriptions are being reviewed on an ongoing basis to include sustainability responsibilities. The various committees of the Campus Sustainability Council also continued to meet regularly. Other departments and offices maintained several consultative bodies to discuss projects and initiatives with relevant stakeholders.

GOVERNANCE

2009 Achievements and Initiatives

- **Sustainability Benefit:** Effective April 1, 2008 a new benefit was introduced for eligible employees who are members of AESES, IUOE and UWFA, and for eligible excluded support and academic employees. The benefit is effective January 1, 2009 for eligible UWFA-Collegiate employees. The purpose of the Wellness/Sustainability account is to encourage healthy living for employees as well as better health for our communities and the environment by helping to offset the cost of physical activity, wellness programs, recycling, sustainable transportation, etc.

- Sustainability principles were incorporated into a **new Board purchasing policy.** The Green Procurement Working Group provided input into the policy development process.

- Beginning in FY2009, **sustainability responsibilities** were **included** in all management **position descriptions**. They will also be extended to other position descriptions as they are reviewed.

- Supporting sustainability initiatives continues to be one of the **President's performance objectives**.

- 19 University staff, 6 University students, and 10 University faculty members were **members of the Campus Sustainability Council and its Working Groups**.

- 39 Faculty & Staff were **Campus Sustainability Representatives**.

- Several offices maintain **ongoing consultative bodies** and/or held consultation **meetings with stakeholders** throughout the year. Details of these are on file in the CSO.

GOVERNANCE

Members of Campus Sustainability Council

Staff	
Baccus, Jodene	Acting Director of Community Learning
Burch, Mark/ Alana Lajoie-O'Malley	CSO
Cann, Len	Assistant Director, Physical Plant
Coppinger, Steve	Retired
Dudley, Michael	Research Assoc., IUS
Emslie, Michael	Financial Services
Repski, Laurel	VP HR, Audit & Sustainability
Thomas,	CSO
Warkentin, Lydia	UWCRC
Faculty	
Buhay, Bill	Geography, CFIR
Diduck, Alan	Environmental Studies
Kumaragamage, Darshani	Environmental Studies
Gibbons, Ken	Politics
Students	
Villalta, Jazmin	UWSA
Cox, Alex	EcoPIA
Beech, Patrick	GESA

Members of Materials Conservation Working Group

Buhay, Bill	Geography
Burch, Mark	CSO
Cann, Len	Physical Plant
Klym, Dara	Safety Officer
Kramer, Ben	Diversity Foods
Molnar, Matthew	Purchasing
Thomas, Kisti	CSO
Warkentin, Lydia	Mgr. of Campus Living (Food Services)
Woods, Sherry	General Counsels Office
Procopchuk, Ernie	Chemistry
Danchura, Werner	Chemistry
Vanderwel, Desiree	Chemistry
Russell, Matt	Student (EcoPIA)
Vilalta, Jazmin	Student (UWSA)
Lajoie-O'Malley, Alana	CSO

GOVERNANCE

Members of Green Procurement Working Group

Buhay, Bill	Geography
Burch, Mark (Chair)	CSO
Cann, Len	Physical Plant
Klym, Dara	Safety Officer
Kramer, Ben	Diversity Foods
Molnar, Matthew	Purchasing
Thomas, Kisti	CSO
Warkentin, Lydia	Mgr. of Campus Living (Food Services)
Woods, Sherry	General Counsels Office
Procopchuk, Ernie	Chemistry
Danchura, Werner	Chemistry
Vanderwel, Desiree	Chemistry
Russell, Matt	Student (EcoPIA)
Vilalta, Jazmin	Student (UWSA)
Lajoie-O'Malley, Alana	CSO

Members of Academic Initiatives Working Group

Buhay, Bill	Geography
Burch, Mark	CSO
Diduck, Alan	Environmental Studies
Kumaragamage, Darshani	Director of Environmental Studies
Metz, Don	Education Faculty
Thomas, Kisti	CSO
Woods, Sherry	General Counsel Office
Morison, Matthew	Student
Krueger, Karin	English Language Programs & International Languages - Program Assistant, Academic
Danny Blair	Geography, Chair
Lajoie-O'Malley, Alana	CSO

GOVERNANCE

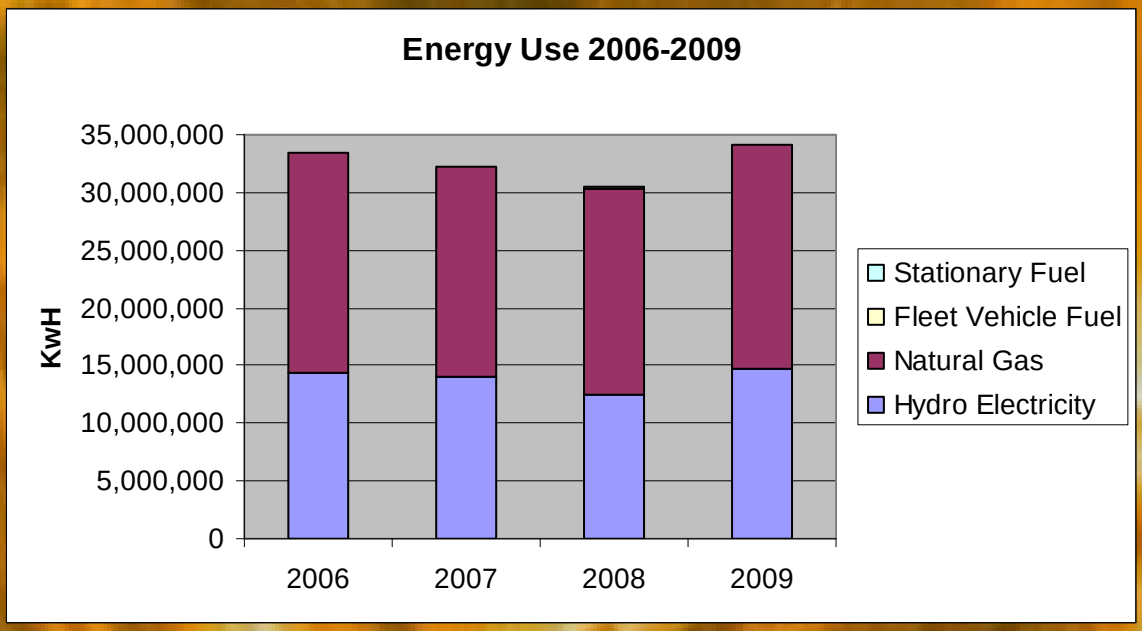
Campus Sustainability Representatives

Academic Department	Representative
Aboriginal Governance	Jacqueline Romanow
Anthropology	Mirjana Roksandic
Athletics	Tricia Klassen
Chemistry	Ernest Prokopchuk
	Basil Elmayergi
Collegiate	Star Nap
Division of Continuing Education	Frederic Guimont
Economics	Soham Baksi
Education	Suzanne Martin
English	Kathleen Venema
English Language Program & International Languages	Karin Krueger
	Carey Roess
Environmental Studies	Darshani Kumaragamage
History	Emma Alexander Mudaliar
Kinesiology & Applied Health	Enid Brown
Psychology	Cherie Werhun
Theatre and Film	Christopher Brauer
	David Hewlett
	Claire Borody
Theology	Arthur Walker-Jones
Urban and Inner City Studies	Claudette Michell
Aurora Family Therapy Centre	Rosa Maria Garcia de Gonzalez
Beyond Words Bookstore	Charmaine Andrews
Corporate Secretary & General Counsel Office	Sherry Woods
Facilities Management	Cynthia McGill
	Sonja Stoud
Financial Services	Matt Molnar
Human Resources	Cathleen Jeanson
Library	Syd Weidman
	Ian Fraser
	Megan Anderson
	Kevin Grummett
Office of the Deputy Provost & Associate VP (International)	Melissa Morton
Physical Plant	April Keenan
President's Office	Tobia Neufeld/Melissa Dupuis
Student Recruitment and Institutional Relations	Emily Fjeldsted
Student Services	Kathleen Legris (Int'l Students Centre)
	Andrea Johnston (Disability Services)
UWSA (Daycare)	Tom Brown (UWSA)

ENERGY

"I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that." ~Thomas Edison~

UW's 2009 energy performance speaks to our greatest challenge in meeting energy and GHG emission reduction goals: an **increasing footprint**. While the amount of **energy used per square foot decreased by 11.5%**, total **energy consumption increased by 12.0%**. These intensity reductions can be attributed to **annual variations in temperature**, as well as to the **dedicated efforts** of members of the UW community in pursuing energy demand measures and commissioning two LEED Silver buildings. **2010 promises to be a watershed year**, with two major initiatives planned that have the potential to significantly reduce UW's energy impact.



Energy Use 2006-2009 (KwH)

	Hydro	Gas	Vehicle Fuel	Stationary Fuel	Total Energy	% Change
2006	14,347,029	19,102,349	41,563	no data	33,490,941	NA
2007	14,118,810	18,107,465	27,047	no data	32,253,322	-3.70%
2008	12,501,378	17,872,431	75,015	58,320	30,507,144	-5.41%
2009	14,702,975	19,377,292	76,159	1,625	34,158,051	+11.97%

Key 2009 Initiatives and Achievements

- Contract finalized to install hybrid heating system.
- RFP process completed to begin campus-wide sustainability audit.
- Ongoing window replacement project.

Key Challenges

- Increasing footprint of University is working against energy reduction goals.

2010 Priority Areas

- Installation of hybrid heating system & monitoring of resulting GHG and cost savings.
- Carrying out of campus-wide sustainability audit and development of implementation plan based on audit recommendations.
- Monitor energy performance of new LEED Silver buildings to verify energy model projections.

ENERGY

At a glance

Two key Energy Use goals are to :

- reduce the University's overall demand for energy of all types
- increase the proportion of renewable energy used from local sources to a practical maximum relative to all energy used.

The proportion of energy used by the University which is derived from "renewable" sources is reported with hydro electricity being considered a renewable energy source, though not as low-impact as would be wind energy or electricity produced from photovoltaic (PV) arrays.

The University took major steps this year towards increasing the proportion of renewable energy used on campus by committing to install a hybrid heating system in the summer of 2010. This system will include the installation of two electric boilers, which will be used at off-peak times to reduce demand for natural gas in the University's core buildings. This project promises to significantly reduce the University's green house gas emissions and to manage energy costs. A key initiative in FY2010 will involve monitoring the effectiveness of this new system.

The University also made considerable progress in planning and contracting out a comprehensive sustainability audit of University facilities. The audit, which will enable strategic and efficient allocation of limited resources, will take place in the spring of 2010. A key goal for the audit is to identify opportunities for reducing energy demand and increasing opportunities to switch to renewable energy sources. These opportunities will prove especially important as the University's footprint continues to expand. Absolute reductions in energy demand are considered a more valid measure of sustainability performance than intensity measures. Intensity measures, while they can reflect improvements in efficiency, may also mask overall growth in the consumption of energy year-over-year.

UW's 2009 energy performance speaks to the challenge we face in reducing our overall energy demand while simultaneous expanding our footprint - while the amount of energy used per square foot decreased by 11.5%, total energy consumption increased by 12.0%. The University's current rate of growth is not a long term trend—the University's footprint can be expected to stabilize as current major building projects are completed.

ENERGY

2009 Achievements & Initiatives

- **Hybrid heating system:** The University selected a contractor to install its hybrid heating system. This system will include the installation of two electric boilers, which will be used at off-peak times to reduce demand for natural gas in the University's core buildings. This project promises to significantly reduce the University's green house gas emissions and to manage energy costs. Key in FY 2010 will be monitoring the effectiveness of this new system.

- **Facilities audit:** In 2009, the University underwent a Request For Information (RFI) process and two Request For Proposal (RFP) processes to move towards completing its facilities audit. By the end of FY 2009, the last RFP process was complete and contract negotiations were underway. The audit, which will enable strategic and efficient allocation of limited resources, will take place in the spring of 2010. A key goal for the audit is to identify opportunities for reducing energy demand and increasing opportunities to switch to renewable energy sources.

- **Lighting retrofits:** The University continues to replace incandescent "pot" lights with compact fluorescent lamps thus achieving a 75% energy saving with each installation. Installation of motion-sensor light controls in offices and classrooms is also ongoing as renovation / maintenance of these areas progresses.

- **Window replacements and upgrades** to high efficiency sealed unit windows in Bryce, Ashdown, Manitoba and Centennial Halls. Window upgrades will significantly reduce energy loss from these facilities.

- **Roof replacement program:** The University is pursuing an on-going program of roof replacement which normally includes upgrades to roof insulation and consequent savings in energy. Since 2004, 95% of campus roofs have been replaced. Roofs were generally changed from modified BUR (Built Up Roofing - consisting of plies of felt in liquid tar covered with gravel on top of insulation) to 2PLY Modified Bitumen Roofing (2Ply ModBit - consisting of a pre-manufactured base sheet mopped in with tar, insulation, top sheet panel (special drywall) and a torched on cap sheet - no gravel). The gymnasium roof was replaced in summer 2009 - all of the 34,000 pounds of gravel ballast removed from the old roof was re-used on several local job sites as both roof ballast and foundation backfill.

- **New Building Developments:** Both new building projects (the Richardson College for the Environment and the Buhler Centre & Plug-in Gallery) will be at least LEED Silver and are targeting maximum energy efficiency.

ENERGY

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Total energy use (KwHe)	Annual reductions to theoretical minimum.	33,490,941	32,253,322	30,507,144	34,158,051
Total energy cost		$1,447,027.83	$1,428,889.16	$1,388,785.52	$1,469,416.42
Total energy intensity of operations: KwH/m^2 of facilities		365	352	328	338
Total energy intensity of operations: KwH/m^2 of facilities/C Degree Day		0.067	0.060	0.055	0.068
Total energy intensity of operations: KwH/FCE/C Degree Day		0.204	0.179	0.169	0.198
Total annual electrical consumption in KwH.		14,347,029	14,118,810	12,501,378	14,702,975
Total annual electrical cost		$760,564.50	$770,608.66	$718,719.33	$839,021.19
Energy intensity of operations: KwH/m^2 of facilities under management	Derived	156	154	134	145
Energy intensity of electricity: KwH / m^2 of facilities under management / C Degree Day.	Derived	0.029	0.026	0.022	0.029
Energy intensity of electricity: KwH / FCE / C Degree Day	Derived	0.087	0.078	0.069	0.085
Total annual natural gas (KwH equivalent).	Annual reduction to theoretical minimum.	19,102,349	18,107,465	17,872,431	19,377,292
Total annual natural gas cost		$686,463.33	$651,473.71	$662,233.43	$622,004.03
Energy intensity of Natural Gas: KwH NG/m^2 of facilities under management	Derived	208	197	192	192
Energy intensity of operations: KwH NG / m^2 of facilities under management / C Degree Day	Derived	0.038	0.033	0.032	0.038
Energy intensity of operations:KwH NG / FCE / C Degree Day	Derived	0.116	0.100	0.099	0.112
Total annual fleet vehicle fuel consumption (KwH equivalent)	Replacement of fleet vehicles with zero emission models operated on renewable energy sources.	41,563	27,047	75,015	76,159

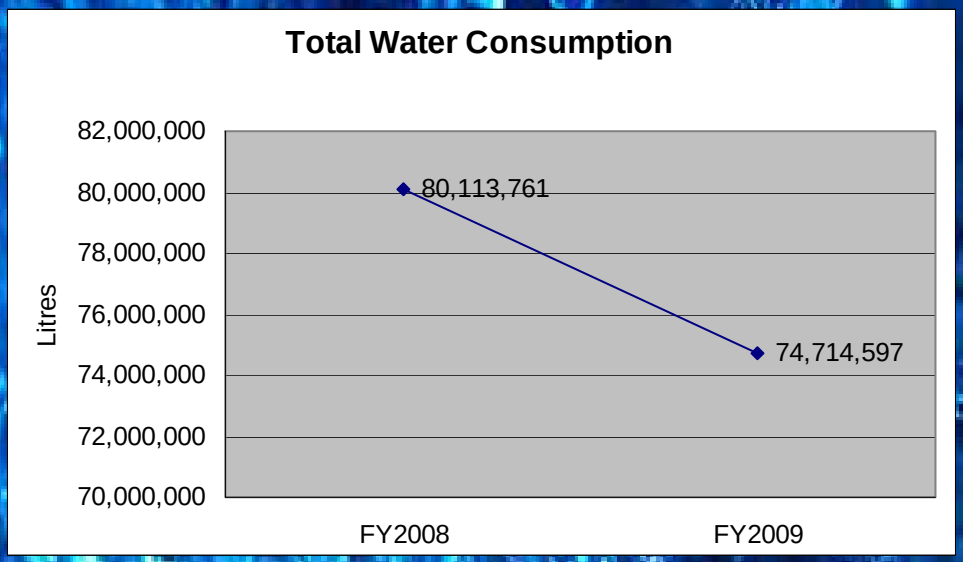
ENERGY

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Total annual fleet vehicle fuel consumption cost		no data	$6,806.79	$7,832.76	$8,391.20
Total estimated annual energy consumption incurred for intra-city transportation of students, staff, administration and faculty in KwHe/annum	Annual reductions to theoretical minimum	no data	no data	no data	no data
Total annual energy consumption incurred for extra-regional transportation of students, staff, faculty and administration which was reimbursed travel by the university, in KwHe/annum	Annual reductions to theoretical minimum	no data	no data	no data	no data
Percent of annual energy obtained from renewable energy sources (hydro-electric, wind, solar thermal, solar PV, biomass, tidal, geothermal)	Increasing annually to 100%	42.84%	43.77%	40.98%	43.04%
Total annual stationary fuel consumption (KwH equivalent)	Annual reductions to theoretical minimum	no data	no data	58320	1625
Total annual stationary fuel consumption cost		no data	no data	no data	no data

WATER

"Thousands have lived without love, not one without water."
~W.H. Auden ~

Launching a **major retrofit project for University washrooms and** including a **study of rain water use possibilities** into the scope of its comprehensive facilities audit, Facilities Management and Physical Plant staff took significant steps towards reducing water demand on campus in FY2009. Results associated with these steps can be expected in 2010. In 2009, the University's **water consumption decreased by 6.7% over 2008**. The likely **cause of this decrease is a relatively cool and wet summer**, which both reduced the need for water use in landscaping and reduced demand on chillers. Over the same period, **water cost increased by 15.4%**.



	FY2008	FY2009	%change
Annual Total Cost of Water	$152,511.44	$176,042.70	+15.43%
Water Cost per Litre	$0.00190	$0.00236	+23.77%
Litres of Water Consumed	80,113,761	74,714,597	-6.74%

Key 2009 Initiatives and Achievements

- Washroom retrofit project launched, which promises to reduce water consumption by over 4,536,634 litres of potable water.
- Water conservation specifications included in all new building projects.
- Water reduction strategies included in scope of comprehensive facilities audit.

Key Challenges

- Viable grey water recycling strategies remain a challenge to identify and implement.

2010 Priority Areas

- Continue with washroom retrofit project.
- Follow through with rain water capture strategies identified through facilities audit.
- Monitor water performance of new LEED buildings.

WATER

At a glance

Water is used by the University in essentially the same applications as those found in a household (washing, cooking, drinking, bathing and toilet flushing) with the exception of water used for laboratory purposes, in cooling towers, and in boilers. Water consumption can be influenced by differences in average annual humidity which can affect evaporator performance in chiller towers and by differences in annual temperatures. Summer 2009 having been a particularly cold and wet summer, these climatic factors are likely what account for a 6.7% decrease in water use. At the same time, water costs continue to increase (15.4% over FY2008).

The University continues to strive for:

- zero waste in the University's use of water
- zero emissions of toxic or hazardous substances to waste water systems
- reduced demand for potable water, discharge of pollutants to water, and production of waste water.

In FY2009, Facilities Management and Physical Plant staff undertook a major retrofit project in washrooms across campus, installing low-flow toilets and urinals as well as electronic sinks. Initial water savings results for retrofitted washrooms indicate that once complete, the project will save the University in excess of 4,536,634.13 litres of potable water, or approximately 6% of its annual water consumption.

The University can also anticipate water-saving opportunities to emerge through its comprehensive facilities audit, particularly through the capture of rain water for landscaping purposes.

WATER

2009 Achievements and Initiatives

Washroom retrofits
The University initiated its retrofit project by looking at the men's and women's washrooms on the main floor of Centennial Hall. The men's washroom consisted of three toilets, four urinals and three sinks. Throughout The University this is a standard size washroom. Before replacing the fixtures, plumbing staff was asked to put meters on the supply line to the men's washroom to measure the consumption from the existing fixtures. The meters were applied and measured the water consumption over a one month period.

After one month we removed the old fixtures and replaced them with the new low flow toilets, urinals and electronic sinks. Once again the meters were applied to measure the water consumption in the men's washroom. The results were as follows:

- The men's washroom saved 18,000 litres of water.
- Over a year that would equate to 216,000 litres per washroom.
- Using these numbers and applying them to all of the student washrooms on Campus, not including janitor closets or private washrooms, the possibility exists that The University can save annually in excess of 4,536,634 litres of potable water.
- This savings represents an excess of 18% of the University's FY2009 potable water use.

An additional and unexpected benefit was the improved level of cleanliness with the automatic flushers on the toilets and urinals. Flooding is not possible as there are leveling controls in both fixtures that automatically shut the water off. Finally, they are truly accessible for those in need.

Comprehensive Facilities Audit
A goal for the audit (described in the Energy section of this report) is to identify opportunities for reducing potable water demand by identifying opportunities for storm water and grey water collection and use.

Water Conservation Specifications are being implemented as part of all new building construction projects.

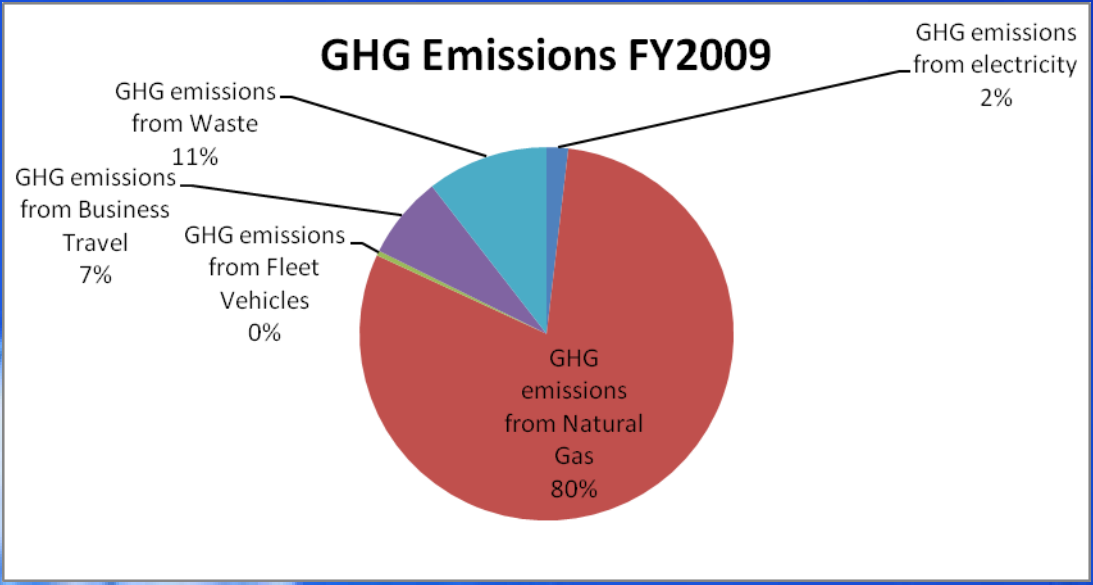
WATER

Indicator	Target	FY2008	FY2009
Percentage of all water fixtures operating on campus which are water conserving models.	Increasing annually to 100%.	5% (est.)	10%-15% (est.)
Evidence of conformance with neutralization of toxic, chemically active, or biohazard substances before discharge to waste water stream.	Periodic verification reports.	On file in Chem / Bio Depts.	On file
Annual Total Cost of Water		$152,511.44	$176,042.70
Total annual volume of potable water in liters consumed by the University.	Report.	80,113,761	74,714,597
Percentage of total annual volume of water for which non-potable sources are acceptable (e.g., toilets, irrigation) supplied from grey water and/or storm water collected annually (in liters) that is reused on-site.	Increasing annually to 100%.	0%	0%
Total storm water recovered and treated / recycled (in liters).	Increasing annually to 100%.	0%	0%
Summary of educational, professional development, and general awareness activities designed to encourage research and increase participation in water conservation activities, practices, and product choices.	Anecdotal reports.	No data	No data
Participation in educational, professional development, and general awareness activities that encourage research and increase participation in water conservation activities, practices and product choices.	Increasing year over year to practical maximum.	No data	No data

GHG & Air Quality

"Water and air, the two essential fluids on which all life depends, have become global garbage cans." ~Jacques Cousteau~

In 2010 GHG calculations and the scope of the University's GHG reporting will be reviewed to better reflect provincial standards. In FY2009, members of the University community – especially Facility Management and Physical Plant staff – initiated **two major projects** aimed at achieving significant GHG reductions. The University can **anticipate seeing the results of these efforts in FY2010**. Equally important, though, are the **challenges** the University faces in achieving absolute reductions in GHG emissions at a time when the campus **footprint is increasing** (8.8% in FY2009, with more additions planned for FY2010). This challenge is a likely cause of a **4.55% increase in emissions in FY2009.**



GHG Emissions - Baseline & 2006-2009 (T of CO2e)	1990	2006	2007	2008	2009
emissions from Electricity	310.1	164.0	203.7	167.1	80.9
emissions from Natural Gas	2676.6	3410.0	3223.9	3187.8	3462.4
emissions from Fleet Vehicles	10.0	10.1	14.4	18.2	18.5
emissions from Business Travel	393.3	336.6	435.9	542.0	309.9
emissions from Waste	231.3	285.1	59.1	223.4	455.2
Total emissions	3621	4206	3937	4139	4327
Target		3404	3404	3404	3404
Reduction required to reach target (T)		802	533	735	923
Reduction required to reach target (%)		23.55%	15.66%	21.58%	27.11%

Key 2009 Initiatives and Achievements

- Contract finalized to install hybrid heating system.
- RFP process completed to begin campus-wide sustainability audit.
- Ongoing asbestos management plan execution.

Key Challenges

- Increasing footprint of University is working against GHG reduction goals.

2010 Priority Areas

- Review GHG calculations and benchmarks to comply with provincial reporting scope and standards.
- Installation of hybrid heating system & monitoring of resulting GHG and cost savings.
- Carrying out of campus-wide sustainability audit and development of implementation plan based on audit recommendations.

GHG & Air Quality

At a glance

University operations affect air quality in a number of ways, with the emission of green house gases (GHGs) produced whenever fossil fuels are burned being the most significant. The University is committed to reducing its overall GHG emissions 6% below 1990 levels by 2012, in conformance with the Kyoto Protocol on Green House Gas Emissions.

Having committed to the installation of a hybrid heating system and having made considerable progress in planning and contracting out a comprehensive sustainability audit of University facilities, the University took major steps in FY2009 towards achieving significant reductions in GHG emissions and meeting its 2012 target. Since our aim is absolute GHG emission reductions, our greatest challenge in meeting this target continues to be the University's expanding footprint.

Other ways in which University operations affect air quality include: (a) "fugitive" emissions of small amounts of chlorofluorocarbons (CFCs) from chillers and air conditioning equipment that escape during servicing or from leaking connections; (b) fume hood ventilation exhaust from laboratories; (c) "scents" used by students, faculty or staff; (d) contamination of indoor air space by asbestos and mold, which can negatively impact human health.

Air pollutants also originate off-campus which affect the quality of air internal to University buildings, a principal irritant being exhaust from the buses at stops near University windows and vents, and occasionally from delivery trucks idling in loading bays of the Shipping and Receiving Department.

In addition to meeting its GHG reduction targets, the University therefore also aims to achieve high levels of indoor and outdoor air quality; reduce sources of air pollution and actual discharges of air pollutants in and from all University programs and facilities; offer a smoke-free campus environment to its students, faculty and staff; strive to establish all its facilities as scent-free spaces; and encourage training and research programs which increase awareness and encourage adoption of activities and practices that prevent degradation of air quality.

Currently, adequate air quality is assumed to be provided if industry standard ventilation rates are maintained by Physical Plant. Air quality complaints are registered with either Physical Plant staff or the University Safety and Health Officer. Summary reports of the number, nature and action taken on air quality complaints are filed periodically to the University's Workplace Safety and Health Committee. Such complaints continue to be dealt with individually depending on circumstances. Pinchin Environmental, Ltd., in St. Boniface, Manitoba, provides air sampling and analysis services for the University.

GHG & Air Quality

2009 Achievements and Initiatives

Hybrid heating system: See Energy section.

Comprehensive Facilities Audit: A key goal for the audit is to identify opportunities for reducing GHG emissions caused by University facility operations through demand reduction and fuel switching.

Provincial Green Building Policy: The Province of Manitoba Green Building Policy mandates that new construction and major renovations to University facilities meet LEED-NC 1.0 or LEED-CI "Silver" standards which include use of low VOC (volatile organic compound) materials and finishes thus further improving Indoor Air Quality IAQ. The policy applies to the new science building, to the Buhler Centre, to McFeetors Hall, and to the new Daycare.

Ongoing Asbestos Management Plan: Continuing on with the asbestos management plan that was finalized in FY2008, in FY2009 an asbestos survey was undertaken for Centennial Hall. Six buildings have now been surveyed, with three left to survey (MacNamara Hall, the Duckworth Centre, and Sparling Hall). Replacement of asbestos containing doors is ongoing, as is the replacement of vinyl-asbestos flooring.

GHG & Air Quality

Indicator	Unit	Target	FY2006	FY2007	FY2008	FY2009
GHG emissions from Electricity	T of CO2e	Diminishing annually to zero.	163.99	203.67	167.09	80.87
GHG emissions from Natural Gas	T of CO2e	Diminishing annually to zero.	3409.96	3223.88	3187.78	3462.42
GHG emissions from Fleet Vehicles	T of CO2e	Diminishing annually to zero.	10.09	14.42	18.22	18.49
GHG emissions from Business Travel	T of CO2e	Diminishing annually to zero.	336.61	435.93	542.05	309.88
GHG emissions from Waste	T of CO2e	Diminishing annually to zero.	285.12	59.09	223.42	455.20
Total GHG emissions from all University operations in T CO_2e per annum for all gases and substances reportable under the CSA GHG reporting protocol.	T of CO2e	Diminishing annually to zero.	4206	3937	4139	4327
Total square meters of indoor space contaminated with asbestos which has potential to negatively impact human health.	m^2	Diminishing annually to zero.	0	0	0	See report
Total square meters of indoor space contaminated with mold which has potential to negatively impact human health.	m^2	Diminishing annually to zero.	0	0	0	0
Number of air pollution incident reports or complaints received per fiscal year and documented evidence of the action taken to address them.		Zero air pollution incident reports or complaints per FY and/or documentation of steps taken to address them.		Complaints – 15	Complaints – 9	Complaints - 5
			no data	Complaints requiring testing – 7	Complaints requiring testing – 7	Complaints requiring testing - 4
				Complaints still ongoing – 4	Complaints still ongoing - 3	Complaints still ongoing - 1

GHG & Air Quality

Indicator	Unit	Target	FY2006	FY2007	FY2008	FY2009
Total amount of pesticides (including all types of plant and animal poisons) in grams used indoors each year, divided by the total square meters of interior space; multiply by 1000.	g/m^2	0 $g/1000\ m^2$	No data	45.61	45.19	36.66
Total amount of pesticides in grams used indoors	g	0 g	No data	4185	4200	3709
Total annual quantities of substances discharged to the air which exceed the thresholds listed with the National Pollution Release Inventory (NPRI) as reportable substances.		Within NPRI tolerances.	No data	0	0	0
Total percentage of indoor space in square meters designated smoke-free.	%	100	100	100	100	100
Total percentage of indoor space in square meters designated scent-free.	%	100	0	0	0	0
Minutes or reports documenting decisions taken to rehabilitate economic, environmental or human health impacts arising from air pollution if such have occurred.	text	Minutes or reports of full rehabilitation if damaging impacts have been incurred.	No occurrences	No occurrences.	No occurrences.	No occurrences
Number and short description of research projects or innovations implemented with the intent of improving air quality in University facilities or programs offered on or off-campus.	number; text on file/in report	Non-zero positive number with short description of each.	No data	Included in CSO Annual Report	Included in CSO Annual Report	Included in CSO Annual Report

BUILDINGS AND LAND

"Academic architecture is in fact a kind of crystallized pedagogy." ~David Orr~

With **two major projects** underway to improve the performance of existing buildings and **three new LEED-standard construction projects** initiated in FY2009, the University continues to work towards minimizing the impact of its properties' operations. As of FY2009, 100% **of the campus is landscaped using xeriscaping** techniques. The University's cleaning service provider continues to employ green cleaning products and practices. The **growing footprint** of the University represents the **main challenge** to several facility-related goals. This rate of growth is not a long term trend.

Key 2009 Initiatives and Achievements

- Contract finalized to install hybrid heating system.
- RFP process completed to begin campus-wide sustainability audit.
- Ongoing green cleaning products and practices included in University cleaning contracts.
- Buhler Centre construction.
- Richardson College for the Environment and Science Complex construction.

Key Challenges

- Increasing footprint of University is working against resource use reduction goals.

2010 Priority Areas

- Installation of hybrid heating system & monitoring of resulting GHG and cost savings.
- Carrying out of campus-wide sustainability audit and development of implementation plan based on audit recommendations.
- Monitor performance of new LEED Silver buildings.
- Green Corridor development.
- Launch greenhouse project.
- Begin planning for Centennial Hall renovation.
- Ensure that green cleaning provisions are included in cleaning contracts for new buildings.

BUILDINGS AND LAND

At a glance

The renovation and maintenance of the University's existing facilities infrastructure is virtually synonymous with making progress on the "bricks-and-mortar" side of the sustainability equation. While this is only part of how the University will meet its overall sustainability commitments, it is nevertheless a critical part.

Land Use and Property Management goals for The University of Winnipeg include:

- Adopt approaches to land use planning, landscape design and construction, and grounds maintenance which reduce waste, reduce use of toxic pest management substances, reduce the energy intensity of grounds maintenance activities, reduce waste to landfill, and reuse materials and products necessary for landscape maintenance.
- Adopt the use of cleaning agents, paints, polishes, pest management techniques, and any other products required for maintenance of buildings, facilities and grounds that represent the least toxic, most environmentally sensitive choices available.
- Develop or commission landscape designs that employ xeriscaping, permaculture, or other organic and sustainable approaches to landscape maintenance.
- Specify the highest sustainability performance standard consistent with the University's fiscal resources in construction of all new buildings and facilities and in the retrofitting, remodeling or recommissioning of existing buildings.

Committed staff at the University continue to put forward their best efforts to meet these goals.

The University's major building projects – the Richardson College for the Environment and Science Complex (ongoing), the Buhler Centre (ongoing), McFeetors Hall (completed), and the new daycare (completed) - attract significant attention as flag ships highlighting the University's commitment to sustainability. Design, construction, and project management teams involved in these projects should be lauded for their efforts in building greener buildings at little if any added capital cost.

At the same time, the new daycare and residence facility account for an 8.8% growth in the area managed by the University in FY2009. Given the University's commitment to *absolute* reductions in resource use, new buildings, no matter how efficient, create a need for increasingly aggressive and creative renovation and retrofit projects in existing buildings to counteract an overall increase in resource demand.

The current rate of physical growth at the University is not a long-term trend. However, it does speak to the importance of establishing strategies to minimize the need for new space in the future by creating flexible, multi-use spaces and making efficient use of space currently available.

There are still significant opportunities for resource demand reduction in older buildings on campus. This possibility means that two major projects – the installation of a hybrid heating system and the setting in motion of a process to carry out a comprehensive facilities audit – have the potential to enable the University to meet its resource reduction targets while it undergoes planned expansions. Further expansion, however, will severely compromise the University's ability to maintain its resource use reduction targets.

BUILDINGS AND LAND

2009 Achievements & Initiatives

Core Buildings & Grounds

***See Energy, Water, and GHG & Air sections for resource-specific achievements.*

- **Hybrid heating system:** See Energy section.
- **Facilities Audit:** See Energy section.
- **Green Cleaning:** The University continues to work with its cleaning service provider to ensure green cleaning practices are used across campus.
- **Xeriscaping:** University grounds are now 100% xeriscaped. This means that grounds are landscaped in ways that reduce or eliminate the need for supplemental water from irrigation. Plants whose natural requirements are appropriate to the local climate are emphasized, and care is taken to avoid losing water to evaporation and run-off.

BUILDINGS AND LAND

The Buhler Centre

The Buhler Centre, scheduled to be complete in the fall of 2010, is designed to meet LEED Silver certification for the Canada Green Building Council. The four-storey facility has been designed to this standard from the start, beginning with the deconstruction of the old *United Army Surplus Store* that once occupied the site: an incredible 90% of all materials from that store were diverted from local landfills. This diversion rate is upheld

throughout construction of the new building.

Of the wood used on the project 50% is certified by the Forest Stewardship Council, and a large portion of materials used on this project have a significant recycled content. Finishes and sealants use low to no volatile organic compounds including all paint finishes. A full post construction air exchange and system flush will ensure that new occupants are provided with a healthy work environment when they move in.

Throughout construction, the site has been protected to ensure construction sediment and debris does not end up in city sewers or tracked across city streets. The building has an integral building envelope that achieves a thermal rating of R-30 and its low emissions glazing controls heat gain. This combined with a complete no-CFC heating and cooling system means the building will perform to less than 44% of the Model National Energy Code.

Contributing to the low energy draw, the building is equipped with ultra low-flow faucets, low-flush toilets, and waterless urinals that account for a total water consumption reduction of 56% of a similar Code compliant building. Large skylights in the centre of the building flood classrooms and offices with natural daylight and a large roof terrace to the south is accessible to occupants 24 hours a day. On site, two electric cars will be able to recharge in dedicated stalls in the parking lot.

Richardson College for the Environment & Science Complex

UW's new science complex will be at minimum a LEED Silver building with an emphasis on energy efficiency. Overall, the building is expected to achieve at least 65 percent less energy use for very little, if any additional, capital cost.

High performance Mott Lab fume hoods will control air velocities while continuing to meet safety standards. Lab fume hoods which typically move and exhaust large amounts of air are known for their intensive energy use. Less air being moved reduces thermal and electrical energy use by as much as 40 percent. Semco Inc. heat recovery wheels enable up to 80 percent energy recovery, including fume hood exhaust.

A red-yellow-green light scheme developed by the integrated delivery project design team will reduce energy use by 40 percent. In this scheme, exhausts operate at one air change per hour (ACPH) in unoccupied red-mode; four ACPH in utility yellow-mode; and eight ACPH in full-lab green-mode. The scheme is controlled on the basis of lab occupancy schedules and local presence sensors.

Passive design elements such as daylighting, increased insulation levels (R30 for the roof, R20 for walls), the use of insulated metal panels to reduce thermal bridging, and the installation of a white roof to decrease cooling needs will also contribute to the energy efficiency of the building.

Water usage is being minimized through the installation of low-flow faucets, dual-flush toilets, waterless urinals, low-flow shower heads and low-water landscaping plant materials.

Where possible, the project uses regional and recycled-content materials. For instance, the feature wall in the central atrium is comprised of reclaimed wood slats that were salvaged from the floor of the former roller rink that existed previously on the site, while the wood ceiling in the entrance lobby utilizes reclaimed elm that has been salvaged from local sources. Low VOC materials are also being minimized, and construction materials are being actively recycled, reducing products to landfill by 75%.

An interior atrium was included to bring daylight down through the centre of the building to the lower level. All classrooms and most of the offices have views either to the exterior or into the centre atrium. Trees on the lower level in the centre of the building will also provide a connection to green even in the middle of winter.

BUILDINGS AND LAND

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Annual amount of chemical herbicide applied to University landscapes in liters.	0 kgs. or 0 liters.	No data	0 L.	0 L.	14 L (Par 3; Roundup)
Annual amount of artificial pesticide used on University landscapes in liters.	0 kgs. or 0 liters.	No data	3.4 kgs.	3.4 kgs. (est.)	0
Annual amounts (in kgs., liters, g., etc) of chemicals applied to University landscapes for any purpose (e.g., chemical fertilizers, ice-melt compounds, dust control products, etc.).	Annual reductions to practical minimum.	No data	3,080 kg (Mtn. Organic Ice Melt)	3,600 kg (est.) (Mtn. Organic Ice Melt)	3.600 kg (est.) (Mtn. Organic Ice Melt)
Percentage of landscaping using xeriscaping techniques and materials.	Increasing annually to 100%.	No data	70%	70%	100%
Annual quantity in liters of fossil fuels consumed by grounds maintenance machinery and vehicles (mowers, snow blowers, sidewalk plows, etc.).	Decreasing year over year to practical minimum.	No data	915 L	928 L	225 L
Percentage of yard wastes composted.	Increasing annually to 100%.	0%	100%	100%	100%
Percentage of grounds watering supplied from grey water / storm water recycling compared to use of city treated water.	Increasing annually to 100%.	No data	0%	0%	0%
Percentage of paper products (toilet paper, hand towels, etc.) consumed annually which are composed of 90% or more post-consumer recycled stock.	100%	No data	100%	100%	100%
Percentage of cleaning products defined as all purpose/hard surface, industrial cleaner, toilet bowl cleaner, floor cleaner/ degreaser, glass, carpet cleaner, spot and stain remover, which meet the equivalent of, or be certified by, Standard CCD-146, CCD-147 and CCD-148 Environmental Choice.	100%	No data	90%	90%	90%
Percentage of cleaning products defined as graffiti remover, drain cleaner and floor stripper for which the following information is disclosed to Property and Plant: - Hazardous ingredients present - Biodegradability of total product - Percent VOC in product - pH - Fragrance - Type of dye - Oral toxicity of product - Presence of optical brightener - Third party certification (if available)	100%	No data	1%	100%	100%

BUILDINGS AND LAND

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Percentage of cleaning products used annually that contain: - Any known or suspected carcinogens/teratogens/mutagens as per IARC, ACGIH - Endocrine disrupters - Phosphates - Substances listed on CEPA toxic substance lists	0%	No data	0%	0%	0%
Percentage of cleaning products used annually the unused portions of which are designated as hazardous wastes (as defined by CEPA or Federal Transportation of Dangerous Goods Act.).	0%	No data	0%	0%	0%
If landscape design and construction has occurred since the last reporting period, documented evidence that xeriscaping / permaculture and organic maintenance regimes have been employed.	Document as required.	No data	Report on file in CSO.	No projects in FY2008.	Report on file in CSO.
Documented evidence from RFPs that LEED standards or better have been specified for bidders.	Document as required.	No data	100% (Province Policy)	100% (Province Policy)	100% (Province Policy)

PROCUREMENT

"Cut down the forest of desire, not the forest of trees."

~Dhammapada 283~

Green procurement principles prescribe **reducing demand** for purchases, **substituting** preferable products for products with negative environmental and health impacts, and **using life-cycle accounting** to make procurement decisions. In FY2009, purchasing agents **strengthened existing sustainability requirements in Requests for Proposals (RFPs)** and tenders to include a requirement that companies buy **carbon offsets** for any travel they undertake as part of University-related contracts. Sustainability language was also incorporated into a **new board policy on procurement**. A key priority for **FY2010** will be working to **incorporate sustainability principles into revised administrative policies and procedures.** Data tracking continues to be a major challenge.

Key 2009 Initiatives and Achievements

- Sustainability language incorporated into new Board procurement policy.
- RFP's & tenders now require that companies purchase carbon offsets for travel undertaken to complete a contract.
- Ongoing efforts to consider full cost of procurement decisions.

2010 Priority Areas

- Incorporating sustainability principles in new procurement administrative policies and procedures, which will be under development through 2010.

Key Challenges

- Tracking of all sustainability-related procurement indicators remains difficult to achieve in the absence of supporting procedures and policies. Limited human resources restrict the University's ability to establish these.
- Procurement authority dispersed to University departments increases the challenge of training all those with procurement authority in green procurement practices.

PROCUREMENT

At a Glance

Procurement activities at the University hold much potential for both cost savings and sustainability improvements. Achieving increments in sustainable procurement performance entails several aspects:

- Supplementing current cost tracking systems with additional measures that capture the *masses* and *volumes* of materials and energy consumed by the University;
- Implementing measures to *reduce demand* for materials and energy;
- Identifying goods, materials, products and services that deliver the same utility with fewer environmental and health impacts and *substituting* them for current choices;
- Implementing *consistent use of life-cycle and full-cost accounting* in making procurement decisions as compared to least-cost purchasing policies.

Currently, the University has good financial data on its procurement activities but little data on masses and volumes of materials consumed. Greening procurement can help assure not only best value for money spent, but also substantial benefits in reducing energy and water use, waste generation, and threats to IAQ, health and safety. Procurement is key to a sustainable University.

The Green Procurement Policy goals of The University of Winnipeg include reducing demand for materials; using full-cost accounting; making procurement decisions that protect human and ecosystem health, and encourage local industries and markets for environmentally preferably products and services; procure goods that require less material and energy to manufacture, package, and transport, are durable, reusable, recyclable and use renewable forms of energy during production, transport, delivery and use; and encouraging training and research programs which increase awareness and encourage adoption of more sustainable procurement practices.

With their limited resources, the University's purchasing agents continue to put forward their best efforts to facilitate sustainable purchases throughout the University. In FY2009, they strengthened existing sustainability requirements in RFP's and tenders to include a requirement that companies buy carbon offsets for any travel they undertake as part of University-related contracts. This year, sustainability language was also incorporated into a new board policy on procurement. A key priority for FY2010 will be working to incorporate sustainability principles into revised administrative policies and procedures. Data tracking continues to be a major challenge.

PROCUREMENT

2009 Achievements & Initiatives

- Sustainability language included in revised board policy for procurement.
- Strengthened sustainable procurement requirements for vendors to include a requirement that companies buy carbon offsets for any travel they undertake as part of their contract; adopted language encouraging recycled and refurbished products whenever applicable and giving preference to environmentally certified vendors (current standards used: EnergyStar, GreenGuard, ISO 14001, FSC).
- Encouraged vendors to go beyond baseline standards, giving preference to products that exceeded standards by 15% or more.
- More buy-in from vendors to principles of green procurement, including identification of material composition and focus on sustainable products.
- Ensuring that furnishings and equipment follow agreed-upon processes when no longer required to assess future possible use and then stored or disposed of in the most environmentally-friendly manner.
- Began process of working with school boards and not-for-profit organizations to assess their needs and how the University can help increase usable lifecycles for furniture through donation and reuse of equipment (both directions).
- Investing in furniture and equipment with a longer projected service life as well as re-used and re-furbished equipment (which reduces economic and environmental costs).

PROCUREMENT

Indicator	Target	FY2009
Documentation that each procurement decision involving the purchase of $X or more of a good, material, product or service, has included a needs assessment as well as a demand-reduction plan whenever possible.	All procurement decisions include a needs analysis and demand reduction plan.	No data - Procurement decisions are normally made by individual departments. Gently-used alternatives are regularly offered as an option to reduce demand, but most demand reduction is driven by budgetary considerations. Needs assessments are performed as required, on an office-by-office basis.
Percentage of total annual dollar value of equipment purchases for which life-cycle cost analysis was applied.	Increasing annually to 100%.	No data - Applying formal life cycle costs analysis would require more procedures than the purchasing department currently has time, resources, and training to implement and develop. Purchasing agents do take into consideration long-term costs, both environmental and financial, when making purchasing decisions – buying things that have specific certifications, production location and shipping distances, extensive warranties so that items can b repaired and reused rather than rebought.
Total number of goods, materials, products or services procured by the University that contain or use toxic or carcinogenic compounds, or the use of which may pose a threat to human health or well-being.	Decreasing annually to zero.	No data - All purchase orders are kept on file for three years along with all associated documentation, including data sheets and email/snail mail conversations. The end user is informed of any issues relating to toxicity or possible health or environmental risks due to the purchase and use of the product.
Documentation that when goods, materials, products or services are procured that contain toxic ingredients or components, a thorough review of alternatives was undertaken and included in the procurement decision.	All toxic product procurement is accompanied by alternative search / review reports.	The University does not buy products that use toxic compounds unless there are no reasonably priced alternatives available. The definition of reasonably priced is somewhat fluid, but generally hovers around 150% of the less desirable product. In the case of specific equipment required by researchers, there are instances in which no alternatives are available.
Percentage of total annual dollar value of all goods, materials and services procured from local and neighborhood suppliers.	Increasing annually to theoretical maximum.	No data - The University does not track how many purchases are locally sourced – again, this sort of tracking would require more resources than currently available. Every effort is made to buy within 100 miles of the City of Winnipeg, then nationally, then internationally. Efforts are also made not to buy products produced overseas.
Percentage of goods, services and materials procured annually that are approved / certified as environmentally friendly / sustainable.	Year over year increase in % age to practical maximum.	No data - Purchasing agents ensure that they pick the “greenest” products they can and attempt to steer end-users towards the most sustainable choice possible.
Percentage of goods, services and materials procured annually that are sourced from certified / approved environmentally friendly suppliers.	Year over year increase in % age to practical maximum.	No data - Almost all furniture purchases are made from certified environmentally friendly suppliers. All paper is 30% post-consumer recycled and is FSC certified. All services have environmental protection clauses in them that state the work has to be done in the most “green” manner possible. The purchase of recycled or used equipment is encouraged.

PROCUREMENT

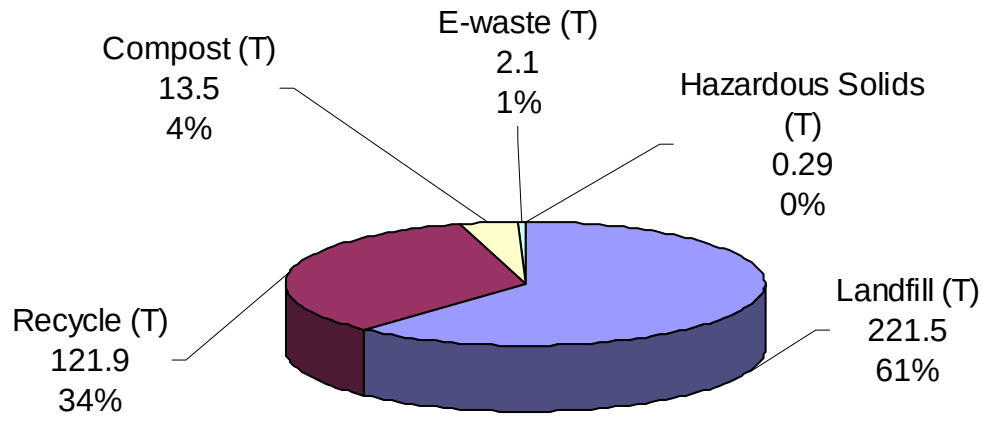
Indicator	Target	FY2009
Total annual weight (in kilograms) of metals and / or metal products procured by the University.	Decreasing annually to theoretical minimum.	No data
Total annual weight (in kilograms) of metals and / or metal products procured by the University from recycled sources.	Increasing annually to 100% of consumption.	No data
Total annual weight (in kilograms) of wood and paper products procured by the University.	Decreasing annually to theoretical minimum.	No data
Total annual weight (in kilograms) of wood and paper products procured by the University from recycled sources.	Increasing annually to 100% of consumption.	No data
Percentage of total number of goods, materials and products that contain recycled material content.	Positive year over year increase as products become available, approaching 100%.	No data - see above
Total annual embodied energy of the products, materials, goods, and services procured by the University.	Year over year decrease.	No data
Summary of educational, professional development, and general awareness activities designed to encourage research and increase participation in green procurement activities, practices, and product choices.	Anecdotal reports & number (should increase to some optimum?)	No data
Percentage of RFPs, tenders and supplier contracts that included the University's green procurement policy.	100%	100%
Evidence that mass / volume-based measurements are being made of all materials and products procured by the University.	Mass measurement system in place.	Under development.
Annual report of green procurement performance.	Tabled annually.	Done
Post Green Procurement Policy and performance reports to website.	Policy and reports posted.	Done

WASTE

"To achieve true sustainability, we must reduce our 'garbage index' […] to near zero."
~David Korten~

Waste data provided to the University from its waste contractors continues to be unreliable. If remotely accurate, though, the University produced **49.5% more solid waste this year than last** and logged a **significant reduction in its diversion from landfill** (35.6% compared to 54.8% for FY 2008). The University did **divert 333.2 T of CO_{2e} through its composting and recycling** efforts. Waste management **costs also increased 28%** in 2009. University departments continued to put forward **considerable efforts to divert and reduce** waste.

UW Waste Stream 2009 - 343.3T



Waste Quantities & Diversion Rates 2006-2009

	Waste to Landfill (T)	Diverted (T)	Total Waste (T)	Diversion Rate (T)
2006	150.6	83.1	233.7	35.6%
2007	77.8	94.4	172.2	54.8%
2008	125.2	104.4	229.6	45.5%
2009	221.4	121.9	343.3	35.5%

Key 2009 Initiatives and Achievements

- Feasibility Study completed for a proposed Materials Conservation Centre.
- Recycling program established for mercury-containing light bulbs.

2010 Priority Areas

- Reduce demand .
- Green procurement embedded in procurement policies and procedure.
- Phase I of an integrated waste management plan.

Key Challenges

- Demand reduction.
- Increasing waste management costs.
- Waste management services inconsistent across buildings,
- Inconsistent and unreliable waste data.
- High contamination rates in recycling and composting.

WASTE

At a glance

Two key Materials Conservation goals are to

- continually reduce the total amount of solid waste produced by the University, which includes landfill-bound trash, hazardous waste, recyclable materials, and compost, and
- maximize the amount of solid waste being diverted from landfill through recycling and composting programs.

Producing 49.5% more solid waste this year than last and logging a significant reduction in our diversion from landfill (35.6% compared to 54.8% for FY 2008), the University cannot boast significant improvements in these key areas in FY 2009. Waste management costs also increased 28% in FY 2009, to $ 70,469.12.

Nevertheless, the University did divert 333.2 T of CO_{2e} through its composting and recycling efforts, and departments demonstrated significant initiative in reducing the amount of waste that they produce, especially paper. Without these concerted efforts throughout the University, our waste to landfill would have been even higher.

Efforts to manage other classes of waste—e-waste, batteries, hazardous waste—are ongoing—0.12 T of toner cartridges and 0.04 T of batteries were recycled in 2009. The Safety Office also launched a new initiative to recycle mercury containing light bulbs.

The impact of the Student Association's successful implementation of a ban on bottled water in 2009 remain inconclusive. Waste audit and recycling data suggest that use of PET bottles on campus decreased by 36.1% and significantly more made their way out of trash cans and into Recycling bins (81.7% compared to 62.9%). Sales data from Diversity Foods, however, do not support these numbers.

WASTE

2009 Activities & Achievements

Waste Management/Minimization

- **Materials Conservation Centre Feasibility Study Completed:** study to examine the possibility of establishing a physical facility designed and equipped in such a way as to enable on-site processing for all classes of non-hazardous "waste" materials leaving the University. It was determined that operating expenses for such a facility were prohibitive; however, the study raised several issues that will be followed up on in the coming year.

- **Recycling of Fluorescent Light Bulbs:** All spent mercury containing light bulbs are redirected from the waste stream to recycling containers; one which collects 4' fluorescent bulbs and the other all other types of bulbs, whether H.I.D., compact fluorescent, other types of fluorescent bulbs including CFL's and spiral bulbs, quartz halogen and incandescent bulbs.

- **Recycling Services in Residence Halls:** Implemented a recycling program in McFeetors Hall, UW's new student residence, and delivered a McFeetors Hall recycling program orientation to all McFeetors residence assistants.

- **Library Journal Recycling Program :** For the second year, the University Library, EcoPIA, and the CSO worked together to recycle old library journals.

- **Diversity Foods:** Diversity Foods is actively engaged in the *takeoutwithout* campaign, which aims to reduce restaurant waste by eliminating unnecessary packaging and emphasizing the use of re-useables. To this end:
    - All take-out containers and cutlery are made of compostable materials
    - The use of reusable plates when eating in the dining area is encouraged
    - Reusable take-out containers and cups are currently made available to food service customers
    - Compost is collected both in kitchens and in the dining area

- **Paper Reduction:** The Office of the Associate Vice-President (Research) and Dean of Graduate Studies moved all of its **research and ethics forms to fillable pdfs** and cut the **number of copies requested from 12 to 2**. Committee members now view the minutes, agenda and applications online via a secure website. The Student Services Office is also undertaking a review **of paper and electronic records** with the view of establishing the most effective method of moving to electronic archives. The computer-based language level placement test developed by our English Language Program (ELP) not only serves the needs of The University of Winnipeg ELP students, but also eliminates one of the department's largest sources of photocopying).

- **Bottled Water Ban:** The impact of the Student Association's successful implementation of a ban on bottled water in 2009 remain inconclusive. Waste audit and recycling data suggest that use of PET bottles on campus decreased by 36.1% and significantly more made their way out of trash cans and into Recycling bins (81.7% compared to 62.9%). Sales data from Diversity Foods, however, do not support these numbers.

Bookstore Initiatives

- The bookstore now has the capability to buy books back from students every day right out of their store. The bookstore purchases books from the students for up to half the retail price and then resells those books to future students at used book costs. The same text can be re-used for as long as the instructors wish to use the title. The bookstore goal is to have at least 25% of text inventory available as used. With the in-store buyback, the bookstore also purchases books that are not necessarily needed for classes. A wholesaler buys books through the bookstore as well. Any wholesale books bought get sent to a warehouse where universities and colleges can order from. The bookstore works closely with instructors so that students know that they have the option of selling their books back to their campus bookstore.

- Approximately 90% books are returnable to publishers. Full copies are returned, not portions. Textbook returns to publishers average about 30%. Inventory management is used to reduce return shipping requirements, saving both money and transportation impacts. Unsaleable books are currently stored or sold back to wholesalers when possible. The bookstore now has the ability to communicate with campuses across Canada and the U.S. and can often send books to others who may need them.

- Course packages are reused as long as professors continue to specify them. Old course packages are recycled or edited with any small changes the instructor may have added or taken out.

- Close coordination between the Bookstore and the Print Shop has made possible a 24 hour turn-around time on printing additional copies of course packages. This reduces the potential unsold inventory carried by the bookstore and also potential waste.

- Reusable cloth shopping bags were introduced.

- On-line ordering for students in place, while the bookstore is currently working on E-Doptions where faculty can submit their text orders via the bookstore website.

- The bookstore sells a wide variety of eco-friendly/sustainable products such as pens. These items are a very large seller among University of Winnipeg Students and Faculty and continues to grow every year.

WASTE

Publicity & Education

- **Educational Action to Address Recycling and Composting Contamination**: CSO staff partnered with EcoPIA to organize a student action on the first floor of Lockhardt Hall, where recycling contamination is particularly severe.

- **Updated Signs and Posters:** CSO staff updated all compost related posters and signage on campus when Diversity Foods replaced Chartwells as the University's main food service provider.

- **Student orientations:** CSO staff presented at "The Really Big Day" first year student orientation and student residence orientation on CSO initiatives and programs, particularly focusing on our compost & recycling programs.

- **Waste Reduction "tips"** were emailed to all staff and faculty on five consecutive days during Waste Reduction Week, 20-24 October 2009.

Administration/Reporting

- **FY2009 Waste Audit completed:** Organized the annual waste audit. Created a number of procedures for future coordinators to use (how to organize the waste audit, what to do before/during/after shifts), created an employee training program, budget list & inventory, and created a reusable data reporting and tracking template, to be re-used by future coordinators. Wrote annual waste audit report. Has begun creating a "waste audit art" book of photography and possible art show.

- **Materials Conservation Coordinator Position Transferred to Campus Sustainability Office:** The transfer of the Materials Conservation Coordinator to the Campus Sustainability Office, and combining the duties of this position into another position which is full time and permanent has increased the amount of time that can be devoted to these programs. This will help establish consistency from year to year, and create greater institutional memory.

- **UTrac development:** Met with EMerge Technologies to provide input on the U-Trac system.

WASTE

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Percent change over previous year's waste production	derived	3.50%	-26.32%	60.50%	49.52%
Total Waste Generated (trash, recycling, compost, Hazardous Waste & E-Waste)	Decreasing annually to theoretical minimum.	233.7	172.2	229.6	343.3
Percentage change over previous year's waste to landfill		no data	-48.34%	60.80%	77.06%
Waste to landfill.	Decreasing annually to theoretical minimum.	150.6	77.8	125.1	221.5
Annual total weight (in tonnes) of materials diverted from landfill and recycled (broken down below).	Increasing annually to theoretical maximum.	83.1	94.4	104.4	121.9
Organic Materials		0	1.5	11.1	13.5
Toner Cartridges		0	0.1	0.04	0.12
Batteries		0	0.1	0.04	0.04
Cardboard & Boxboard		30.5	35.1	33.1	45.6
Paper (incl. confidential paper)		49	51.4	49.4	43.2
PET drink containers		3.6	6.2	10.8	6.9
Percentage of the total weight (in kilograms) of waste destined for landfill or incineration comprised of recyclables (including organic wastes):	derived	No data	15.80%	14.30%	14% recycling; 32% compost
Annual total weight (in kilograms) of solid and liquid hazardous waste produced by or discharged from University facilities and operations.	Decreasing annually to theoretical minimum.	No data	0.65 T Solids	0.24T Solids	0.3T Solids
			1,000L Liquids	1,241L Liquids	1363 L liquids
Change in hazardous wastes produced by the University over previous year.	derived	No data	Not calculable.	- 65.6% for solids	+24.5% Solids
				+ 24.1% for liquids	+9.9% Liquids

WASTE

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Annual total weight (in kilograms) of solid and liquid hazardous wastes recycled (either on- or off-campus).	Increasing annually to theoretical maximum.	No data	0T On campus. Unknown off campus.	0T On campus. Unknown off campus.	0T On campus Unknown off campus
Percentage of total annual weight (in kilograms) of solid and liquid hazardous waste recycled.	derived	No data	No data	No data	
Waste to landfill disposal cost		$32,400.00	$33,323.93	$34,613.87	$49,273.49
Recycling collection fees		$5,000.00	$5,100.00	$5,000.00	$5,250.00
Confidential paper shredding service		$4,258.06	$7,176.72	$7,445.81	$9,280.60
Hazardous waste removal fees		$6,278.48	$15,000.00	$7,743.26	$4,775.19
Compost collection fees		$0.00	$0.00	$0.00	$1,889.84
Total waste management costs		$47,936.54	$60,600.65	$54,802.94	$70,469.12
Summary of educational, professional development, and general awareness activities designed to encourage research and increase participation in waste reduction activities, practices, and product choices.	Anecdotal reports.	No data	On file in CSO.	On file in CSO.	On file in CSO
Participation in educational, professional development, and general awareness activities that encourage research and increase participation in waste reeducation activities, practices and product choices.	Increasing year over year to practical maximum.	No data	No data	No data	No data

TRANSPORTATION

"Get a bicycle. You will not regret it if you live."
~Mark Twain~

In 2009, significant effort and progress was made in the construction of a **bike lab and enhanced storage facility** on camps. The University aims to have the facility completed on time for the start of the 2010/2011 academic year. This project represents a first **step in establishing the University as an active transit hub for downtown Winnipeg**. The year also witnessed significant **decreases in reimbursed University travel**. Much of this variation may be due to an **evolving data tracking system**. It is also indicative of reduced travel budgets and perhaps of fewer research trips taken over the year. The **decline cannot be attributed to any specific sustainability-related initiative.**

Reimbursed Travel FY2009	FY2008	FY2009		% Change
Air Travel (km & litres of fuel)	3,599,160	2,054,975	km	-42.90%
	125,971	71,924	L	-42.90%
Automobile Travel (litres of fuel)	22,059	12,879	L	-41.62%
Intra-City Bus Travel (kilometers & litres of fuel)	5,851	632	km	-89.20%
	175	19	L	-89.14%
Other (esp. rail, km)	190	1112	km	+ 485.26%

Key 2009 Initiatives and Achievements

- UWSA/University partnership to construct a bike lab a bike station by start of 2010/2011 academic year.
- Travel distance tracking for reimbursed travel in place.
- **Inclusion of dedicated bike lane in the Green Corridor** planned to connect the UW main campus with the new Richardson College for the Environment.

Key Challenges

- **Many factors influencing sustainable transport choices not in University's direct control.**
- Promoting greater use of active transportation and education about impacts of transportation choices continues to require greater resources than those currently available.

2010 Priority Areas

- Bike lab/station construction.
- UWinnipeg Balmoral Transit Terminal.
- Establish travel-reduction strategies in conjunction with introduction of Cisco TelePresence virtual meeting systems.
- Ongoing liaising with active transit stakeholders in Winnipeg.
- Continue to develop transportation data tracking systems.

TRANSPORTATION

At a glance

Transportation continues to represent one of the most environmentally significant daily choices made by University members. It also represents one of the most challenging sustainability policy areas to track and is an issue upon which the University has limited direct control. Nevertheless, the University strives to promote adoption of more sustainable approaches to transportation among students, faculty and administration both in their commutes to and from the University and in their University-related travel.

The goals of the University of Winnipeg Sustainable Transportation Policy include encouraging the development and adoption by students, administration, staff and faculty, of modes of transportation that

- reduce consumption of fossil fuels used for transportation
- reduce the material and resource-use intensity of transportation
- reduce and eventually eliminate discharges of toxic substances, wastes, and pollution, including GHG emissions
- increase equity of access to transportation services

The avenues through which the University attempts to address transportation goals is by facilitating infrastructure development and behaviours over which the University has direct control, and also those areas where it has partial control or can exert influence through education, professional development, awareness-building, or community partnerships.

In 2009, transportation-related activities included ongoing progress in the construction of the campus' first bike station, regular communication with members of Winnipeg's cycling community and city hall to coordinate sustainable transportation initiatives, progress in improving business-related travel reporting, attempts at establishing carbon-credit purchases for University travel, and efforts to improve transportation-related data tracking.

Business-related travel in FY2009 decreased noticeably against FY2008. It is suspected that most of this change is the result of an evolving data tracking system, tighter travel budgets, a vacancy in the Director of Recruitment position for a period of time (who tends to do a lot of international travel), and the natural variation in Research travel which tends to vary from year to year.

In FY2010, along with carrying through with ongoing Transportation projects, the University will be installing two Cisco TelePresence virtual meeting systems. These systems have the potential to facilitate reducing business-related travel. A key initiative in 2010, then, will be to establish strategies that facilitate choosing virtual meetings over business travel as far as practicable. The City of Winnipeg will also be establishing a transit hub at the former Greyhound bus station, which was acquired and is currently being redeveloped by the University. The hub will be operational by September and will enhance access to transit to individuals traveling to and from the University.

While progress continues to be made in several key areas, supporting sustainable transportation continues to represent a significant challenge to the University.

TRANSPORTATION

2009 Achievements & Initiatives

- **Inclusion of dedicated bike lane in the Green Corridor** planned to connect the UW main campus with the new Richardson College for the Environment campus continues to inform designs for the area. Once completed, this feature will connect the UW central campus with the east-west cycling thoroughfare proposed by Bike to the Future for St. Matthews Avenue, thus connecting central Winnipeg with the Perimeter Highway and making the UW campus the eastern terminus of this route.

- **Construction of Bike Station and Bike Lab:** The UWSA and the CSO continue to work towards the construction of the University's first bike station and lab. A major donation for the project was secured by the University's Director of External Affairs and University Advancement, while the UWSA and the University have also committed funds to the project. The current aim is to have the facility open by the fall of 2010.

- **Carbon Off-sets and travel distance reporting for all University business travel:** An initiative was undertaken to implement a revised travel distance reporting procedure for faculty and staff reimbursed travel and to launch a consultation process with faculty leading to the implementation of a carbon off-set purchase regime for University business travel. The consultation process met with several challenges that led to the decision to postpone the implementation of a carbon off-set purchase regime; however, an improved travel distance reporting procedure is now in place. This ensures better travel-related data that can eventually be used to establish a carbon off-set purchasing regime.

- **Active Transportation Programming:** The University of Winnipeg Campus Sustainability Office, in partnership with UWSA and with the support of the Director of External Affairs and University Advancement, proposed to organize and host a series of educational events related to active transportation aimed at members of the university and surrounding community. A grant application was made to the TD Friends of the Environment Foundation, but turned down. The CSO and the UWSA continue to work together to identify funding opportunities for Active Transportation Programming.

- **Transportation Survey:** Over the first half of 2009, the CSO developed a research proposal aimed at gathering information relevant to the University's transportation indicators and to lay the foundation for future research on community-based social marketing initiatives that could support sustainable transportation goals. A number of changes to methodology were proposed by the University's Research Ethics Committee which will be evaluated in FY2010.

TRANSPORTATION

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Total annual fossil fuel consumption for University fleet vehicles.	Reducing annually to theoretical minimum.	No data	6,111 L	7,717 L	7835 L
Total estimated annual fossil fuel consumption incurred from reimbursed air travel by University faculty, students or support staff.	Reducing annually to theoretical minimum.	No data	2,988,800 km 104,608 L	3,599,160 km 125,971 L	2,054,975 km 71,924 L
Total estimated annual fossil fuel consumption incurred from reimbursed automobile travel by University faculty, students or support staff.	Reducing annually to theoretical minimum.	No data	12,589 L	22,059 L	12,879L
Total estimated annual fossil fuel consumption incurred from reimbursed intra-city bus travel by University faculty, students or support staff.	Reducing annually to theoretical minimum.	No data	No data	5,851 km 175 L	631.54 km 19 L
Total estimated annual fossil fuel consumption incurred from reimbursed inter-city bus travel by University faculty, students or support staff.	Reducing annually to theoretical minimum.	No data	22.1 L	0	0
Total estimated annual fossil fuel consumption incurred from reimbursed rail travel by University faculty, students or support staff.	Reducing annually to theoretical minimum.	No data	0	190 kms.	1111.5 km
Total estimated annual fossil fuel consumption incurred from intra-city bus travel from residence to campus and back by students, faculty and support	Reducing annually to theoretical	No data	No data	No data	No data
Total estimated annual fossil fuel consumption incurred automobile travel from residence to campus and back by students, faculty and support staff.	Reducing annually to theoretical minimum.	No data	No data	No data	No data
Total estimated annual fossil fuel consumption incurred from carpooling and ride sharing travel from residence to campus and back by students, faculty and support staff.	Reducing annually to theoretical minimum.	No data	No data	No data	No data
Percentage of total area of campus property devoted to parking lots, streets and lanes.	Constant or reducing over time.	No data	No data	No data	No data
Total annual emission of GHGs incurred from use of fleet vehicles.	derived	10.1 T. CO_2e	14.4 T. CO_2e	18.2 T. CO_2e	18.5 T CO2e
Total annual emission of GHGs incurred from intra-city travel by all modes from residence to campus and back by students, faculty and support staff.	derived	No data	No data	No data	No data
Total annual emission of GHGs incurred from reimbursed travel by all modes by students, faculty and support staff.	derived	336.6 T. CO_2e (Probably under-reported)	435.9 T. CO_2e	542.1 T. CO_2e	309.88 T CO2e

TRANSPORTATION

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Percentage of Transit buses with special access features to accommodate the needs of seniors, children, and the disabled.	100%	No data	No data	No data	No data
Percentage of transportation-related facilities on campus with access features for seniors, children and disabled.	100%	No data	No data	100%	100%
Cost of Transit fares as a percentage of annual income for students, faculty, and staff.	derived	No data	No data	No data	No data
Adequacy of Transit service including air quality in buses and at stops/shelters; seating space per person within buses; scheduling of service; timely scheduling and routing information for Transit users; Transit user satisfaction ratings.	Improving annually to practical maximum.	No data	No data	No data	No data
Attendance numbers for seminars, information events, and training sessions for students, faculty or support staff that address sustainable transportation literacy.	Increasing annually to practical maximum.	No data	No data	Campus Commuter Challenge - Unknown. Workplace Commuter Challenge - 67. Walk for Wellness event - 89.	Campus Commuter Chalenge - Unknown Workplace Commuter Challenge - 57, or 7.5%
Pre-training-post-training change scores measuring knowledge about and use of sustainable transportation modalities and services by students, faculty and support staff.	Positive change values.	No data	No data	No data	No data
Anecdotal reports of information services, equipment, activities or events that promote sustainable transportation on campus.	Reports tabled.	No data	On file in CSO.	On file in CSO.	On file in CSO
Percentage of students, faculty and support staff who regularly walk to campus.	Increasing annually to practical maximum.	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office
Percentage of students, faculty and support staff who regularly cycle to campus.	Increasing annually to practical maximum.	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office
Percentage of students, faculty and support staff who regularly use urban mass transit to travel to campus.	Increasing annually to practical maximum.	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office

TRANSPORTATION

Indicator	Target	FY2006	FY2007	FY2008	FY2009
Percentage of students, faculty and support staff who regularly use carpooling or ridesharing to travel to and from campus for work or classes.	Increasing annually to practical maximum.	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office	2005 Wpg Transit Study – CSO Office
Percentage of students, faculty and support staff who regularly drive single occupant vehicles to campus.	Decreasing annually to practical minimum.	No data	No data	No data	No data
Participation rates for students, faculty and support staff in Resource Conservation Manitoba's Commuter Challenge.	Increasing annually to practical maximum.	No data	48	67	57
Avoided trips represented by distance-education course delivery, teleconferences, telecourse enrollments, etc.	Increasing annually to practical maximum.	No data	No data	No data	No data
Evidence that such measurement and monitoring system is in place.	Documented system.	Not in place.	Not in place.	Not in place.	Not in place

ACADEMICS

"It is the way we think and our capacity for wisdom that will ultimately produce the world we live in now and shape the world of the future."
~Konai H. Thaman ~

The University aims to **encourage research and learning that support** specific campus-based **sustainability** initiatives and that address local, regional, national and global sustainability concerns. In FY2009, **several research projects** with strong sustainability components were undertaken by University researchers. Efforts were also made to **reduce the ecological impact of course delivery**. Sustainability was given a prominent role in the University's **new academic plan**. Key in FY2010 will be facilitating campus-based research and experiential learning opportunities.

Key 2009 Initiatives and Achievements

- First Campus Sustainability Recognition Award conferred.
- Ongoing sustainability-related faculty research.
- Online course evaluations proposed to reduce paper consumption .

Key Challenges

- Establishing incentives for faculty and students to take up campus-based sustainability research remains a challenge.
- Increasing campus-sustainability related experiential learning opportunities for students remains a high priority but is difficult to realize given limited CSO staffing resources.

2010 Priority Areas

- Establish Sustainability Management System course that enables students produce the University's annual Sustainability report.
- Establish experiential learning course that supports campus-based sustainability learning.
- Identify & begin to address barriers to faculty & student campus-based research.

ACADEMICS

At a Glance

Central to the University's overall sustainability mission is encouraging teaching, learning, and research that support long term improvements in the University's sustainability performance and enable faculty and students to serve broader communities as they seek to improve theirs.

This includes encouraging research and learning to support specific campus-based sustainability initiatives. It also includes supporting course delivery and research activity that address local, regional, national and global sustainability concerns.

While there is no specific policy addressing sustainability in the academic life of the University, all administrative policies mention encouraging research and learning activities that have the effect of better equipping our graduates to exercise full and constructive citizenship in a society which must be concerned to develop in ways that ensure the realization of its fullest potentials in the future as well as the present.

Naturally, achieving these objectives may have implications for curriculum, but should not be understood in the first instance as aiming to increase the number of environmental science courses, faculty positions, or research publications per se. All faculties and departments of the University have a stake in sustainability, as it simply refers to ensuring the capacity of human societies and institutions to persist over time within healthy and intact ecosystems—a goal which should be shared easily enough by students of all disciplines.

The Campus Sustainability Council includes an Academic Initiatives Working Group charged with developing ways of integrating sustainability elements into the academic life of the university and encouraging high levels of student awareness of, and engagement with, sustainability issues.

In FY2009, several research projects with strong sustainability components were undertaken by University researchers. Efforts were made to reduce the ecological impact of course delivery. Sustainability was also given a prominent role in the University's new academic plan. Key in FY2010 will be facilitating campus-based research and experiential learning opportunities.

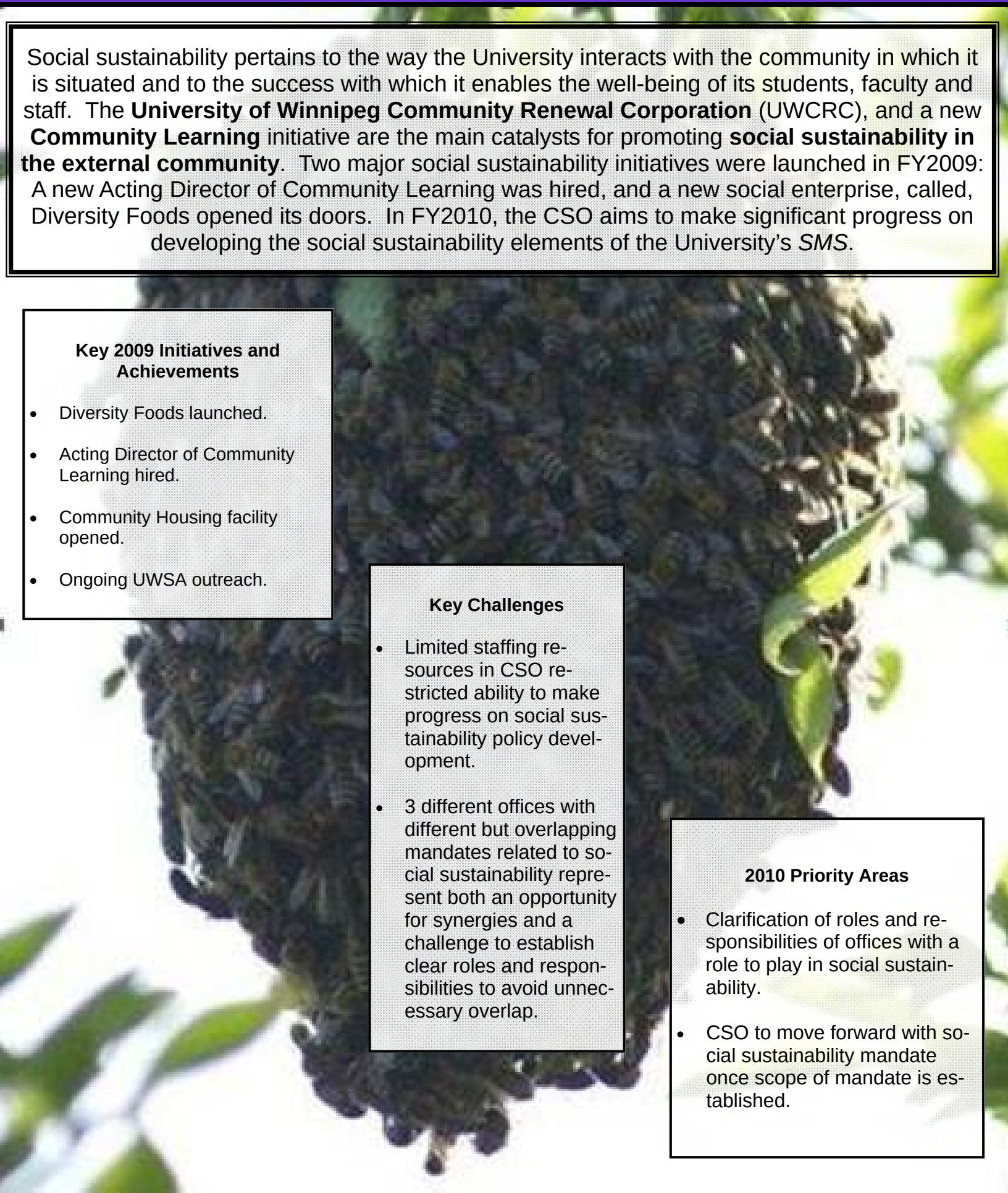
ACADEMICS

2009 Achievements and Initiatives

- Conferred the first **Campus Sustainability Recognition Award** to EcoPIA and the Library at fall convocation for their work in establishing a journal recycling program. Recipients for next year's recipients were also selected by the awards committee.
- A research proposal was been submitted to the **Sustainable Development Innovation Fund** to investigate the ecological impacts of classroom delivery of instruction and committee work and identify ways of reducing these impacts and publishing a best-practices compendium for use by University of Winnipeg faculty. At this writing, the outcome of the application is still forthcoming.
- A **feasibility study** was undertaken to assess the viability of establishing a materials conservation centre at the University.
- An initiative is currently in process to establish **online course evaluations**. Approval on an online evaluation is subject to: (1) Approval of the current draft document (for content) by Labour/ Management Committee on Student Evaluation at UW by the Senate. (2) Updating infrastructure at the UW. (3) Cisco upgrades and resolving any compatibility issues. (4) Final decision by the UW on appropriate software (internal, commercial, etc.) and content management that would all be compatible with the newer systems being implemented. (5) Major upgrades to currently old LMS (WebCT) by 3 versions that involves major server upgrades. Hence, a large budget approval. (6) Substantive issues that are to be addressed include: return rate, confidentiality, stability, reliability, compatibility, personnel & training.
- Sustainability is a central element of the University's **new academic plan**.
- Several **research projects** underway at UW have strong sustainability elements. Titles include:
    - Phytochemical Studies on Medicinally Important Plants
    - Methane and Nitrous Oxide cycling in the Red River
    - Developing renewable green bioproducts from aquatic natural resource
    - Reintroduction and Recovery of the Burrowing Owls in Manitoba
    - Managing Public Health Crisis: The Role of Models in Pandemic Preparedness
    - Artificial Thermal Refugia and WNS
    - Case studies of multi-level learning in resource and environmental governance in Canada
    - Silos and systems, development and sustainability: Catalytic forces in mineral policy?
    - Characterizing and Bioremediating Human Pharmaceutical and Personal Care Product Contaminants (PPCPs) in a Western Canadian Sewage Lagoon
    - Phosphorus Leaching in Manured Soils
    - Assessing the Practice of Sustainable Teaching
    - Comparing cumulative growth, stand biomass, and carbon storage among fire-origin and planted stands of Red and Jack pine in Sandilands Provincial Forest, Manitoba
    - Morden's Community Lead Environmental Action on Nutrient Elimination and Removal (CLEANER) in Dead Horse Creek
    - Ecological Energetics of Small, Wild Animals: From Flexibility to Fitness
    - Environment, Sustainability and Health

SOCIAL SUSTAINABILITY

Social sustainability pertains to the way the University interacts with the community in which it is situated and to the success with which it enables the well-being of its students, faculty and staff. The **University of Winnipeg Community Renewal Corporation** (UWCRC), and a new **Community Learning** initiative are the main catalysts for promoting **social sustainability in the external community**. Two major social sustainability initiatives were launched in FY2009: A new Acting Director of Community Learning was hired, and a new social enterprise, called, Diversity Foods opened its doors. In FY2010, the CSO aims to make significant progress on developing the social sustainability elements of the University's *SMS*.



Key 2009 Initiatives and Achievements

- Diversity Foods launched.
- Acting Director of Community Learning hired.
- Community Housing facility opened.
- Ongoing UWSA outreach.

Key Challenges

- Limited staffing resources in CSO restricted ability to make progress on social sustainability policy development.
- 3 different offices with different but overlapping mandates related to social sustainability represent both an opportunity for synergies and a challenge to establish clear roles and responsibilities to avoid unnecessary overlap.

2010 Priority Areas

- Clarification of roles and responsibilities of offices with a role to play in social sustainability.
- CSO to move forward with social sustainability mandate once scope of mandate is established.

SOCIAL SUSTAINABILITY

At a Glance

Social sustainability pertains to the way the University interacts with the community in which it is situated and to the success with which it enables the well-being of its students, faculty and staff.

The University of Winnipeg Community Renewal Corporation (UWCRC), and a new Community Learning initiative are the main catalysts for developing and implementing initiatives and projects related to the University's role in promoting social sustainability in its external community.

The UWCRC's mandate is to support the University by developing a sustainable University community that promotes the attractiveness of the University to its faculty, staff, students, and the greater community.

Community Learning pertains to an increasingly integrated approach to learning that recognizes the University campus belongs to and is anchored within a diverse community - a community that includes adult learners, war-affected children, new immigrants, Aboriginal students and international students from every part of the globe.

Within the internal University community, student, faculty and staff wellbeing is also addressed through student associations and groups as well as various administrative councils and bodies. Many of these bodies also engage in community outreach work that has not been documented here.

The Campus Sustainability Office has a mandate to incorporate the University's social sustainability goals into its sustainability management system. To date, this effort has consisted of research into the meaning and potential scope for such a project. In FY2009, the Director's position for the CSO was made into a full-time (from a 60% FTE) position with the understanding that this increase in staffing would facilitate progress on developing the social sustainability elements of the *SMS* in FY2010.

Three major social sustainability initiatives were launched in FY2009: A new Acting Director of Community Learning was hired, a new social enterprise - Diversity Foods - opened its doors, and the University began offering community housing.

SOCIAL SUSTAINABILITY

2009 Achievements and Initiatives

Diversity Foods

In September, The University of Winnipeg Community Renewal Corporation (UWCRC) and SEED Winnipeg launched a joint venture called Diversity Food Services. Diversity employs approximately 25 people to provide all food services on campus including meal-plan students living at the new McFeetors Hall student and community residence. In the coming months, employees and managers of Diversity Food Services will be invited to invest in its ownership. It is an approach that is unique among universities in Canada. In developing nutritious, affordable and ethnically diverse food options, Diversity focuses, wherever possible, on locally sourced, organic ingredients, reducing transportation costs, decreasing the dependency on food grown with herbicides and pesticides, and securing products that benefit those who grow them through a commitment to fair-trade practices.

McFeetors' Hall Housing

The University's new student residence facility opened in the fall of 2009. The facility includes accessible town houses and dorm rooms, two and three bedroom townhouses for families and 172 dorm-style beds to accommodate students in single and double bedroom suites. An important intent of this facility is to help remove barriers to university education for recent immigrants, Aboriginal people, rural students and adult learners by providing safe, affordable housing. In addition to providing housing to UW students, the facility provides affordable housing to community members. Community residents are given priority spots in the UWSA's new childcare facility.

Community Learning

Community learning describes the active integration of the university into the social, cultural and educational life of the community. It recognizes the responsibility of the university to function in an accessible manner and to open itself up to the wide diversity of knowledge and experience represented within society. Broadly speaking, community learning, as applied in this second sense at The University of Winnipeg, consists of: 1) the provision of innovative learning opportunities for various populations currently underrepresented in the University population; 2) the use of the resources of the University to analyze and address social, economic, cultural and environmental issues in partnership with community organizations and other groups; 3) the cultivation of dynamic and reciprocal relationships between the campus and the surrounding community in which University resources are used to facilitate community-university learning development in ways that are sustainable in social, economic, cultural and environmental terms and; 4) the understanding that these initiatives serve as learning opportunities for our students and others from within a broad range of local and global communities.

The University's Community Learning mandate builds on existing programs and initiatives such as the Innovative Learning Centre, the Global Welcome Centre, the Wii Chiiwaakanak Learning Centre, and service learning and experiential learning programs run through various departments.

SOCIAL SUSTAINABILITY

Wellness/Sustainability Benefit
As of January 1, 2009 the University's wellness/sustainability benefit was extended to include eligible UWFA-Collegiate employees. The benefit is now available to all AESES, IUOE, UWFA, and excluded employees. The $100 taxable benefit was established to encourage healthy living for employees as well as better health for our communities and the environment by helping to offset the cost of physical activity, wellness programs, recycling, sustainable transportation, etc.

Freestyle (UWSA)
Freestyle is a weeklong festival where community youth members and university students are invited to learn and create in a highly structured (and artistically driven) programming environment at the University of Winnipeg and Magnus Eliason Recreation Centre.

Free workshops highlighting all 4 elements of hip-hop: (rap, dj skills, b-girl/b-boy "break" dancing and graffiti art) are offered throughout the week. We also offer a basketball clinic for participants through the generous partnership of The U of W Athletics department and Duckworth Centre.

Last year more than 140 community youth participants from a variety of after school programs and community centres took part in Freestyle, alongside many University of Winnipeg students.

Their participation culminated in a CD release event and performance featuring their own original work, written and developed throughout the week.

The UWSA will also be introducing youth mentorship/ peer to peer programming coordinator positions this year where community youth will be hired to work alongside staff for this year's festival.

UWSA Bike Lab
The UWSA Bike Lab project that is currently in development will be a cycling education and advocacy program and facility. It will support the cycling activity of, and offer free cycling workshops to, students, faculty, staff and community members. One specific programming focus will be community outreach build a bike programs, where youth and adults who live in our neighborhood will have the opportunity to work alongside students and staff in learning the skills to build a "good as new" bike from donated and recycled parts. Once completed, and after receiving safety training and equipment, the participants (and/or the organizations that may have facilitated their participation) will own the bikes they have restored. The vision of The UWSA Bike Lab program has a strong experiential and community learning focus and will provide many opportunities to engage and partner with other like-minded on campus programs and initiatives.

SOCIAL SUSTAINABILITY

UWSA Daycare Facility
The UWSA's new child care centre opened in the fall of 2009, adjoining McFeetors' Hall. The new facility has space for up to 112 children from both the University community and surrounding neighbourhood and includes outdoor play areas in an enclosed green space.

Campus Sustainability Office Mandate
The Campus Sustainability Council commenced work in November of 2006 to respond to the provision of the Campus Sustainability Policy which calls for development of policies and initiatives which specifically address the social dimension of sustainability. The process was stalled in 2008 owing to the demands on the CSO with respect to other elements of the *SMS.* In FY2009, the Director's position for the CSO was made full-time (from a 60% FTE position). This increase in staffing in the office should facilitate progress on developing the social sustainability elements of the *SMS.*