UWinnipeg Sustainability Performance Report

FY2010

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- President & Vice-Chancellor Lloyd Axworthy, March 2005

Comprehensive facilities audit: Johnson Controls International was hired to conduct a sustainability audit of Ashdown, Bryce, Centennial, Graham, Lockhart, Manitoba, Riddell, HBO, Duckworth, Sparling, MacNamara, and Young buildings in summer 2010. Opportunities for energy v '‚' • À]vP• Á Œ] v š](] v ht[• µŒŒ v š Á š Œ }v• ŒÀ š]}v •šŒ š mPÇ Á•a 24%À] Á X reduction of GHG emissions and 27% energy reduction target for the buildings audited, with a payback of approximately 15 years. We have begun implementing some recommended measures internally.

Water retrofit: UWinnipeg plumber Doug Ester introduced a bathroom fixture retrofit program that promises to save the University in excess of one million gallons of water per year. This initiative developed as a result of COPSE (Council on Post-Secondary Education)

2 Introduction

2.1 Reporting Period and Scope

This report applies to FY2010 (April 1 2010 – March 31 2011), and applies to the full scope of the University of Winnipeg's Sustainability Management System. This 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 University may provide physical facilities, active partnerships, or other support when such programs or events are delivered by institutions, groups, corporations or organizations that are not formally recognized as part of the University community.
5. [illegible] persons, institutes, research centres or other entities, to which University policies may generally apply.

2.2 Sustainability Governance & Strategic Plan

Implementation of [illegible]

dZ hv]À Œ•]šÇ [for FY 2011 will be to complete its sustainability strategic plan. This is likely to include a careful consideration of the merits of participating in the STARS (Sustainability Tracking & Rating System) program, administered by the Association for Advancement of Sustainability in Higher Education (AASHE).

In FY 2010, UW President and Vice Chancellor Lloyd Axworthy also signed the hv]À Œ•]šÇ v }oo P WŒ•] vš•[o]u š Z vP Action for Canada dZ]• (}Œu o]Ì • ht[• }uu]šu vš š}i}]v v š]}v o }uuµv]šÇ }(hv]À Œ•]š] • šZ š knowledge for society and our obligation to demonstrate leadership in areas of community, national and global importance and that are committed to tracking, monitoring, and strategically reducing their greenhouse gas emissions.

2.3 Annual Demographic, Weather, and Space Variations

The number of people on campus, annual variations in weather, and changes in the campus footprint all affect sustainability performance. More people, cold winters, hot summers, and a larger footprint will all increase resource demand, while fewer people, warmer winters, cooler summers, and reductions in the University's footprint (}}š‰Œ]vš Á}µo Z À šZ }‰‰}•]š ((šX

2.3.1 Area Under Operational Control

dZ hv]À Œ•]šÇ }(t]vv]‰ P[• vvµ o •µ•š]v]o]šÇ Œ ‰}ŒšŒ (o š• šUniversity exercises some degree of control over utilities Ç }v•µu‰š]}vX µŒŒ všoÇU õí9 }(šZ •‰ } µ‰] Ç šZ hv]À Œ•]š remaining 9% represents space over which the University does not have any operational control and does not have access to utility consumption dat

3 GHGEmissions & Air Quality

d Z h v] À Œ •] š Ç [• P Œ v Z } µ • P • u] • •] } v • vaddressed in its Air Quality Management Policy and monitored on the basis of the indicators developed to reflect the goals set down in it.

3.1 GHG Emissions & Air Quality Key Initiatives

Hybrid heating system: The system consists of two electric boilers (one in Centennial Hall and one in Ashdown Hall) and new controls to enabl UW to switch from Natural Gas to electric boilers at peak times. The boiler in Centennial was operational as of January 2011. The boiler in Ashdown Hall continues to experience challenges with its emergency release valve and is therefore not yet operational. Numerous fixes have been attempted without success, and efforts to make the boiler operational are ongoing. Once fully operational, we can expect annual savings in the order of 1000 T CO2e relative to the campus heating system operating without the electric boilers.

Comprehensive facilities audit: Johnson Controls International was hired to conduct a sustainability audit of Ashdown, Bryce, Centennial, Graham, Lockhart, Manitoba, Riddell, HBO, Duckworth, Sparling, MacNamara, and Winnipeg buildings. Opportunities for energy and GHG savings Á Œ] v š] ( ] v h t [• µ Œ Œ v š Á š Œ } v • Œ À š] } v • š Œ š P Ç Á • Œ À] Á X ction • of GHG µ] š Œ • emissions and 27% energy reduction target for the buildings audited, with a payback period of approximately 15 years.

Science Building and Richardson College for the Environment: This new building will add approximately 30% more space to the campus, which presents a challenge with respect to Z µ v] À t Œ •] š Ç [• energy, water, and GHG performance. However, once open (summer of 2011), some of this added consumption will be offset by allowing the University to vacate some leased space over which it has little control building systems. The University will also decommission several old, inefficient labs in core buildings. Converting these labs into basic classrooms and offices should help reduce energy consumption of core buildings, while the labs in the Science Building are among the most energy efficient in North America.

3.2 GHGEmissions & Air Quality Performance

See Appendix for air quality performance indicators. In FY2010, University greenhouse gas emissions increased by 0.89%. Provincial and national data for 2010 emissions is not yet available. Total emissions in Manitoba in 2009 decreased 6.3% and total emissions in Canada decreased

2009 vs. 2010 electricity by building	KwH change	% change	2009 (KwH)	2010 (KwH)
370 Langside (McFeetors)	-636,117	-77.75%	818,171	182,054
511 Ellice	-18,919	-7.97%	237,492	218,573
342 Young	-13,683	-100.00%	13,683	0
Duckworth Centre	-13,570	-0.71%	1,923,570	1,910,000
440 Spence	-3,756	-100.00%	3,756	0
284 Balmoral	-2,110	-13.84%	15,243	13,133
359 Young	-1,920	-3.82%	50,220	48,300
MacNamara Hall	-1,800	-0.76%	236,880	235,080
270 Balmoral	-1,580	-13.66%	11,570	9,990

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2009 vs. 2010 Natural Gas by Building	volume change (m 3)	% change	2009 (m3)	2010 (m3)

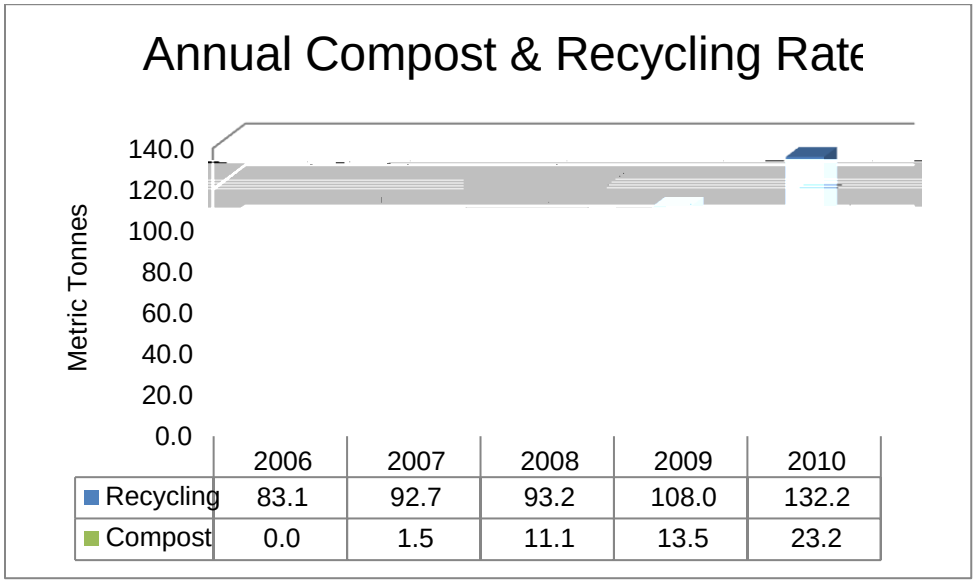
% Consumption vs. % Total Area	% of total area	% of natural gas consumption
T21 (Theatre)	4.33%	4.70%
370 Langside (McFeetors)	6.97%	5.79%
548 Furby (Daycare)	0.87%	0.97%

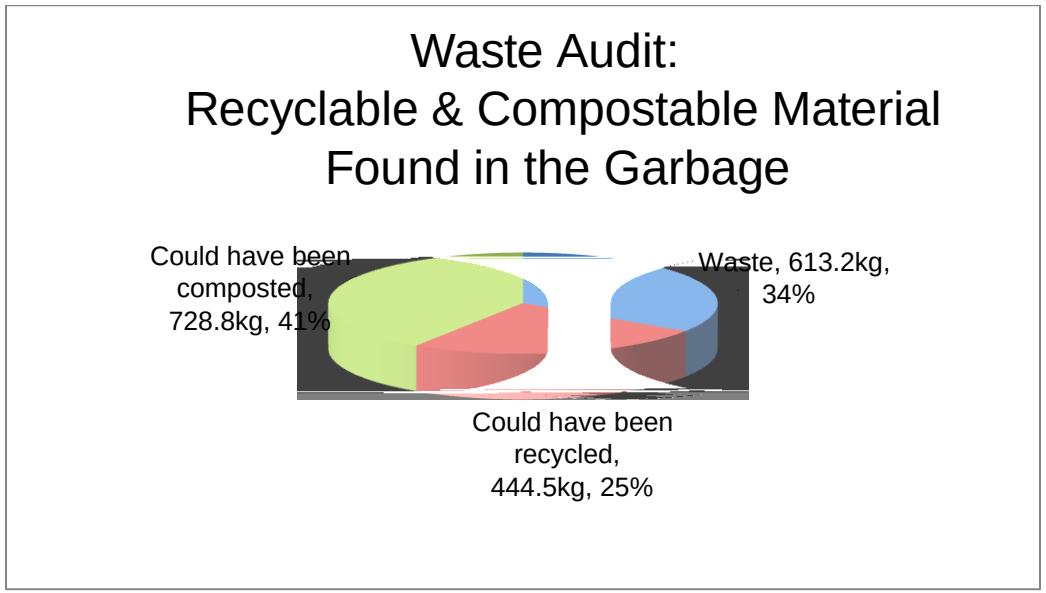
4.3 When can we expect our energy performance to improve?

The completion of the comprehensive facilities audit in FY2010 positions the University to achieve real energy efficiency improvements to core buildings in FY2011 and for years to come. The hiring of a new Controls Technician in the Physical Plant establishes the in-house capabilities required to undertake several audit measures internally. The potential for energy performance improvements forms an integral part of the u v] À Œ •] š Ç [• v µ] v] (š •] v u] v U Á v Z } ‰ š } •] u ‰ Œ } À u v š •] v š Z h v strategic planning process. With these efficiency in FY2011, while overall energy use reductions remain a goal upon which we can set our weights as we continue to pursue our sustainability goals

6 Waste

2010/2011, while recycling collection increased by 22.38%. These results suggest improvements in diversion rates. This contradiction further highlights the need to establish reliable waste to landfill data. For data on hazardous and electronic waste, see waste indicators in appendix.





7 Transportation

d Z h v] À Œ •] š Ç [• š Œ Ê acts are addressed in its Sustainable Transportation Policy and monitored on the basis of the indicators developed to reflect the goals set down in it.

7.1 Key Transportation Initiatives

Bike Lab: The UWSA Bike Lab/UWinnipeg Bike Hub project continues to inch its way forward and should be operational on time for the start of the 2011/2012 academic year. Key financial contributors to the project include a private major donor ($100,000), Ken Shapiro (shipping containers), the UWSA ($55,000), and the VP HR, Audit & Sustainability Office ($10,000).

Ice Riders: Launched in the spring of 2010, the UWSA-run Ice Riders winter cycling team had an incredibly successful season. Membership ballooned from about 10 to over 50; regular bicycle maintenance workshops were held through the cold winter months, and the team produced a high-quality video about the Bike Lab. This momentum promises to propel programming in the Bike Lab once it is completed.

Underground bicycle parking: In FY2010, indoor secure bicycle parking underground the Duckworth Centre was made available to students, faculty, and staff for $10 a month. All students, as well as faculty and staff with Duckworth Centre memberships, have access to Duckworth showers from this parking location. For an additional $2.00/month, faculty and staff without Duckworth Centre memberships can also access showers.

UWinnipeg Balmoral Transit Terminal: In FY2010, The University of Winnipeg partnered with Winnipeg Transit to redevelop the former Greyhound Bus depot into the new UWinnipeg Balmoral Transit Terminal, providing improved service to students and thousands of downtown commuters. Once the first phase of the Southwest Rapid Transit Corridor is completed in late 2011, the terminal will make it possible for commuters to travel efficiently from neighbourhoods such as St. Norbert, Fort Garry, Fort Richmond, Waverley Heights and Woodlands in the southwest end of the city to the UWinnipeg campus.

7.2 Transportation Performance

Though staff travel budgets decreased by 4% in FY2010 over FY2009, significantly more reimbursed travel took place (+61.48% T CO2e, +63.17% km). This increase likely reflects an increase in research-related travel, funded through external grants. Establishing means of minimizing research-related travel impacts remains a challenge. At present, the University is working to facilitate the substitution of travel with distance communication technologies by installing two Cisco TelePresence™ video conference sites on campus.

8 Buildings and Land

9 Procurement

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9.1 Key Initiatives

Social Responsibility: In FY2010, UW purchasing P P v š • Á } Œ l š }] v } Œ ‰ } Œ š • }] o Œ • ‰ } v •]] o] š Ç Œ ‹ µ] Œ u v environmental requirements.

Provincial Procurement Initiatives: Members of the University purchasing department continue to participate in the Province of Manitoba sustainable procurement initiatives and activities.

9.2 Performance

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9.3 Comments

^ µ • š] v] o] š Ç o v P µ P Z • v] v o µ -level policy; however, administrative policies require review in order to fully include sustainability into procurement decisions. There is also an ongoing need to develop purchase/materials based tracking and monitoring capabilities in order to support the purchase of more responsible goods and services and to reduce material inputs into the University.

11 Key Challenges

Campus development & planning: h t] v v] ‰ P [• P Œ } Á] v P u ‰ µ •] • jivatic E] pu šel vitalizat]o šoZ our dowvntown key elements of intelligent urban design for sustainable cities.

12 Conclusion – campus sustainability, campus growth & the bigger picture

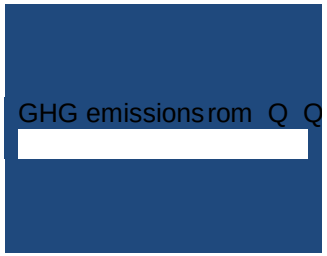
d Z h v] À Œ •] š Ç } (t] v v] ‰ P [•] š Z (o r e] v v] ‰ w a s i n i t i a l l y b u i l t f o r a c a m p u s p o p u l a t i o n a p p r o x i m a t e l y 6 6 % s m a l l e r t h a n i t s c u r r e n t e n r o l m e n t a n d staff complement represents. This situation, along with the ongoing interest in attracting increasing numbers of students, contextualizes UWinnipeg campus expansion. This expansion can serve to rectify existing space restrictions and prepare UWinnipeg for future increases in enrolment. It can also help š } Œ À] š o] Ì v] v Œ • š Z v •] š Ç } (t] v v] ‰ P [• } Á v š } Á v X

Global energy and resource trends suggest the need to meet these goals by pursuing development strategies that respond to limited global supplies of natural resources and to global excesses of carbon emissions.

In January 2011, BP Oil published BP Energy Outlook 2030: 60 years Statistical Review.[3] According to its estimates, flattening population growth and energy demand in OECD countries, along with increasing populations, standards of living, and energy demands in non-OECD countries, will cause global energy demand to continue to increase through to 2030.

Accordo Œ] v P š } W [• • µ Œ À Ç } (À] o o v Œ P Ç • } µ Œ • U š Z] •] v Œ Related GHG emissions Á] a t o] u ‰ o Ç v] exceeds 350 ppm of CO2e in the atmosphere, the level that is considered to be safe. Even the most aggressive climate change policies (which few countries are succeeding in successfully implementing) fail to deliver greenhouse gas emission reductions that approach these levels (see chart below).

This global challenge is characterized by a flattening OECD energy demand by improved efficiency and continued physical growth, along with the pressures of increased populations and standards of living elsewhere. h t] v v] ‰ P [•] (( ] µ o š] •] v Œ } v] o] v P š Z • ‰ represented by its increased population and lifestyle expectations with the pressures that these demands pl


GHG emissions rom Q Q

		ation of steps taken to address them.	Complaints still ongoing ±4	Complaints still ongoing - 3	Complaints still ongoing - 1	NA

Total percentage of indoor space in square meters designated scent-free	%	100

Water Indicators	Unit	Target	FY2006	FY2007	FY2008	FY2009	FY 2010

activities, practices, and product choices							initiative
Participation in educational, professional development, and general awareness							

reeducation activities, practices and product choices							

Transportation Indicators	Unit	Target	FY2006	FY2007	FY2008	FY2009	FY 2010
Total annual fossil fuel consumption for University fleet vehicles.	L	Reducing annually to theoretical minimum.		6,111	7,717	7,835	9,248
Total estimated annual fossil fuel consumption incurred from reimbursed air travel by University faculty, students or support staff	km	Reducing annually to theoretical minimum.		2,988,800	3,599,160	2,054,975	3,393,691
	L			104,608	125,971	71,924	118,785
Total estimated annual fossil fuel consumption incurred from reimbursed automobile travel by University faculty, students or support staff	L	Reducing annually to theoretical minimum.		12,589	22,059	12,879	15,831
Total estimated annual fossil fuel consumption incurred from reimbursed intra-city bus travel by University faculty, students or support staff	km	Reducing annually to theoretical minimum.			5,851	631.54	8,956
	L			No data	175	19	

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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

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	Campus

2005 Wpg Transit Study ± CSO Office
2005 Wpg Transit Study ± CSO Office
No data

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%	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%	90% (some products used in kitchens have no Environmental Choice alternatives)
Percentage of cleaning products defined as							

		reports.	reasonably priced is somewhat fluid, but generally hovers around 150% of the less desireable product. In the case of specific equipment required by researchers, there are instances in which no alternatives are available.	reasonably priced is somewhat fluid, but generally hovers around 150% of the less desireable product. In the case of specific equipment

Percentage of goods, services and materials procured annually that are approved / certified as environmentally friendly / sustainable	text	Year over year increase in %age to practical maximum.				No data - Purchasing agents ensure that they pick WKH ³JUHHQ products they can and attempt to steer end-users towards the most sustainable choice possible.	No data - Purchasing agents ensure that they pick WKH ³JUHHQ 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	text	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 PRVW ³JUHHQ manner possible. The purchase of recycled or used equipment is encouraged.	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 PRVW ³JUHHQ manner possible. The purchase of recycled or used equipment is encouraged.

Total annual weight (in kilogr

14 Appendix B List of Committee Members & Focus Group Participants

Staff	
Jodene Baccus (Community Learning)	Campus Sustainability Council
Len Cann (Physical Plant)	Campus Sustainability Council, Materials Conservation Working Group
Steve Coppinger (Retired)	Campus Sustainability Council
Michael Dudley (Institute of Urban Studies)	Campus Sustainability Council
Michael Emslie (Financial Services)	Campus Sustainability Council
Laurel Repski (VP-Sustainability.)	Campus Sustainability Council
Mark Burch (Retired)	Campus Sustainability Council

Student s

William Ring (EcoPIA)	Campus Sustainability Council
Ava Jerao (UWSA)	Campus Sustainability Council
Matt Morison	Academic Initiatives Working Group
Andree Forest	Volunteer
Jordan Janisse	Volunteer
Avery Artimowich	Volunteer
Caleigh Christie	Volunteer
Marlowe Brownlee	Focus Group
Andrea Globa	Focus Group
Katie Haig-Anderson	Focus Group
Ginger Boyer	Focus Group
Katrina Derbecker	Focus Group
Christopher Clacio	Focus Group
Kaeleigh Ayre	Focus Group

Jino Distasio, Churchill Sustainability Planning Framework (through the Institute of Urban Studies).

Patricia Fitzpatrick, Government and Voluntary Policies for Mining Sustainability: Development, Implementation and Learning in Canada and Brazil, Silos and Systems, Development and Sustainability: Catalytic Forces in Mineral Policy?

Other
Samantha Arnold (Politics)