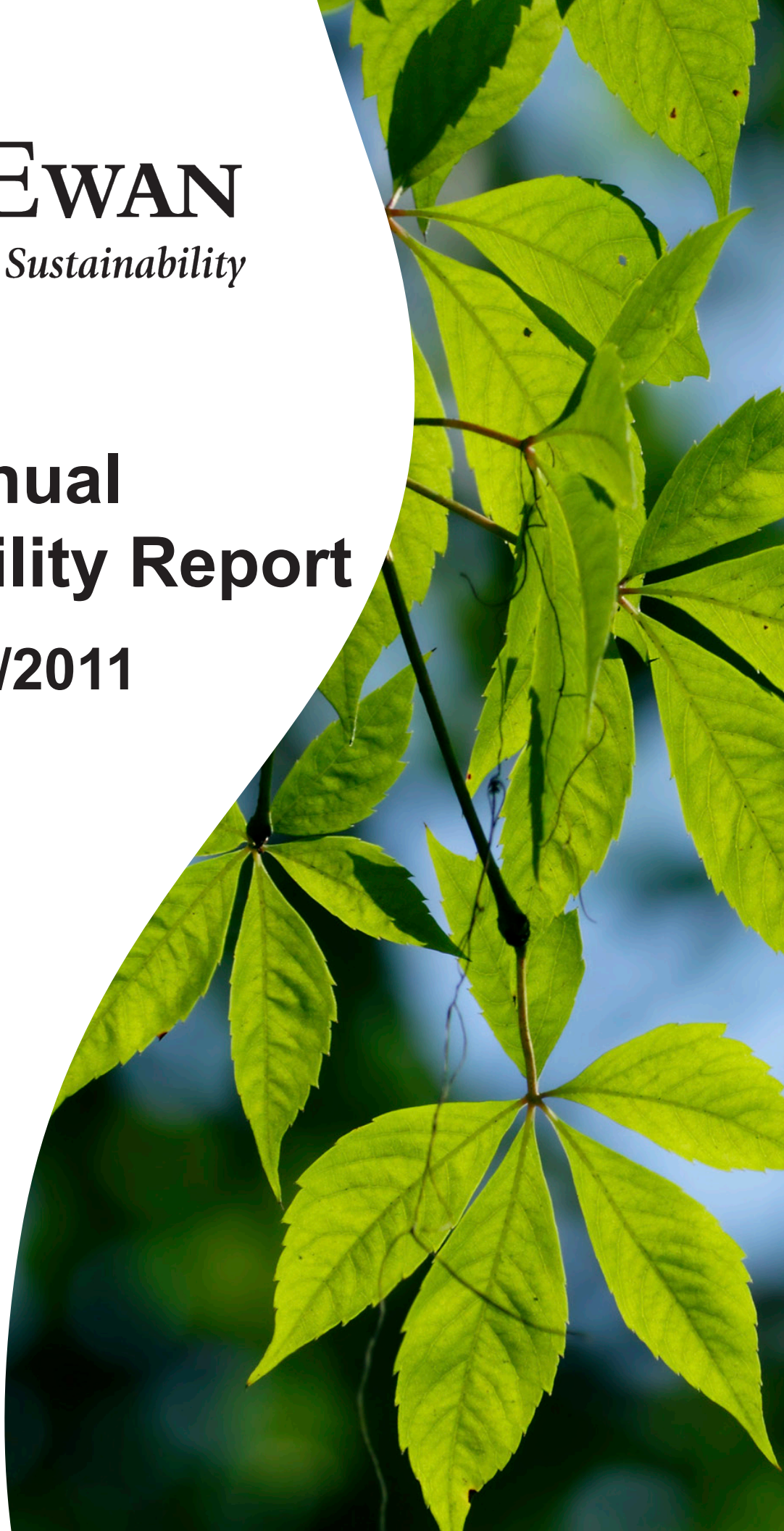


**MACEWAN**

*Office of Sustainability*

**Annual  
Sustainability Report  
2010/2011**





Acknowledgements:

Sustainability accomplishments at Grant MacEwan University have been due to the collaboration and hard work of many university departments. The innovative and dedicated participation of staff, students, and faculty have helped to ensure Dr. J.W. Grant MacEwan's legacy of environmental stewardship continues today and into the future

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***Grant MacEwan University is committed to the principle of sustainability in all its operations and to the recognition of the fundamental interdependence of environmental quality, economic prosperity, and social responsibility***

***~MacEwan Sustainability Policy D6000***

While many definitions have been used to define sustainability, the most widely accepted definition originates from the World Commission on Environment and Development by the General Assembly of the United Nations in 1982. In the report *Our Common Future*, published in 1987 by the Brundtland Commission, sustainability is defined as the following: “Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present, without compromising the ability of future generations to meet their own needs” (WECD, 1987, p.8).

This definition articulates the inexorable link between human goals and the environment. It emphasizes the focus of intergenerational equity (Kates, 2005) and the responsibility we all share to foster a resilient future. Ultimately, sustainability requires the efforts of a diverse range of stakeholders and perspectives (Kates, 2005), including post secondary institutions.

To this effect, sustainability planning at universities and colleges is growing as faculty members, staff, and students venture to advance stewardship on campuses. A defining moment in this endeavor was the signing of the Talloires Declaration in October 1990, in which universities from across the globe committed to support environmental citizenship and advance global environmental literacy. As stated in the Talloires Declaration, “universities have a major role in the education, research, policy formation, and information exchange necessary to shape a sustainable future” (University Leaders for a Sustainable Future, 1990).



In 2009, MacEwan signed the Talloires Declaration, as well as two other agreements committed to fostering sustainability on campus: the Pan-Canadian Protocol for Sustainability and the University and College Presidents' Climate Change Statement of Action.

To help achieve these commitments, the University established the Office of Sustainability. The Office oversees the creation and implementation of a Campus Sustainability Plan, which will provide an overarching framework focused on incorporating sustainability in three main pillars: Education for Sustainable Development; Sustainable Operations; and Planning, Administration and Engagement. Moreover, the Office provides guidance, fosters awareness, monitors progress, and promotes partnerships relating to campus-wide sustainability priorities.




The University also established the Sustainability Advisory Committee to support MacEwan's aspiration to be a leader in sustainability. This support is provided in the form of feedback to, and advice for, the Office of Sustainability. The committee has a diverse representation of faculty, staff, and students passionate about achieving stewardship goals.



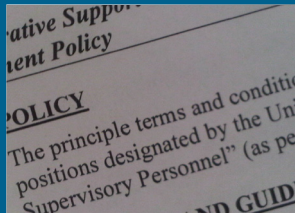
Accordingly, sustainability planning on campuses offers learners the knowledge and tools to discover solutions for a vibrant future. MacEwan is looking forward to working with students, staff, faculty, and the community to continually develop initiatives promoting sustainability. This is the first Sustainability Annual Report published by Grant MacEwan University, and will highlight the key sustainability initiatives and programming that took place up to, and including, the 2010/2011 academic year.



# MacEwan's Road to Sustainability

|  |   |  |
|--|---|--|
| <p><i>Feb</i><br/>2008</p>  | <p><i>Nov</i><br/>2008</p>  | <p><i>Feb</i><br/>2009</p>  |
| <p>Sustainability Policy D4500 approved by the Board</p>   | <p>Establishment of the Sustainability Advisory Committee</p>   | <p>Talloires Declaration Signed</p>  |

|   |   |  |
|---|---|--|
| <p><i>May</i><br/>2009</p>  | <p><i>June</i><br/>2009</p>  | <p><i>Sept</i><br/>2009</p>  |
| <p>Pan-Canadian Protocol for Sustainability Signed</p>  | <p>University and College Presidents' Climate Change Statement of Action Signed</p>                             | <p>Board of Governors approves Single Sustainable Campus Model</p>   |

|  |   |  |
|--|---|--|
| <p><i>Nov</i><br/>2009</p>  | <p><i>Jan</i><br/>2010</p>  | <p><i>May</i><br/>2010</p>  |
| <p>Creation of the Office of Sustainability</p>  | <p>Greenhouse Gas Emissions Inventory completed</p>   | <p>Sustainability Policy D6000 updated</p>   |

# Single Sustainable Campus



In September 2009, MacEwan's Board of Governors approved a plan to consolidate MacEwan's four campuses into one, central, urban campus. The Single Sustainable Campus is a 20-year vision that will eventually see all students, staff, and faculty from all four campuses move to the downtown location. This project is an innovative approach of expanding service through renovating existing infrastructure, optimizing land use, reducing our footprint, and improving the utilization of existing buildings.

The consolidation of services onto a single campus allows for fair, equitable, and efficient use of resources, as well as provides services, technology and facilities on-site for all learners.

The Single Sustainable Campus supports cultural vitality, social equity, environmental stewardship, and economic viability. Environmental considerations include energy, water, waste, land use, and transportation. New buildings, at a minimum, will also incorporate the following sustainable design principles:

- Mitigate impacts on environmental and human systems
- Enhance the health and performance of occupants
- Create spaces with performance appropriate for use
- Set and meet targets of LEED Silver certification
- Be cost-effective
- Incorporate innovative technologies for building and energy use
- Reduce waste
- Reduce the amount of potable water consumed in the building and carefully handle storm-water on site
- Use Integrated Design Processes to foster collaboration



# University Service Centre



The University Service Centre (USC) is the first phase of the Single Sustainable Campus model. This 5,000 square meter addition is home to over 200 MacEwan administrative staff which moved into the new space in April 2011. The University Service Centre is built to LEED™ Silver standard incorporating sustainable design principles and occupancy practices. The USC is also designed using an open concept strategy, integrating individual workspaces as well as collaborative high energy hubs throughout the layout.

Some of the sustainable aspects of the USC include:

- Innovative siting on top of the west parkade to minimize the physical footprint on the campus
- Sustainable transportation programming to encourage cycling, carpooling, and public transportation
- High albedo roof, or “solar reflective roof” to reduce the urban heat island effect
- Water conservation measures including low flush toilets and low flow faucets
- Low VOC (volatile organic compound) materials, adhesives, sealants, paints, coatings, and carpets
- Controllable thermostats and operable windows
- Indoor air quality analysis and air flush
- Optimized energy performance through electrical and mechanical systems
- EcoLogo™ certified renewable energy credits to offset over 80% of the electrical load
- Diversion of construction and demolition waste
- Use of recycled and regional materials

# University Service Centre



# Campus Sustainability Plan

*“The men and women who, in 20 years, will lead our businesses, educational institutions and government agencies are in school now. We need to offer them the kind of academic and professional preparation that will ready them to envision and create a different kind of world”  
(National Wildlife Federation, 2008, P.3)*

MacEwan has committed to establish a Campus Sustainability Plan (CSP) that will focus on three main pillars:

- Pillar I: Education for Sustainable Development
- Pillar II: Sustainable Operations
- Pillar III: Planning, Administration, and Engagement

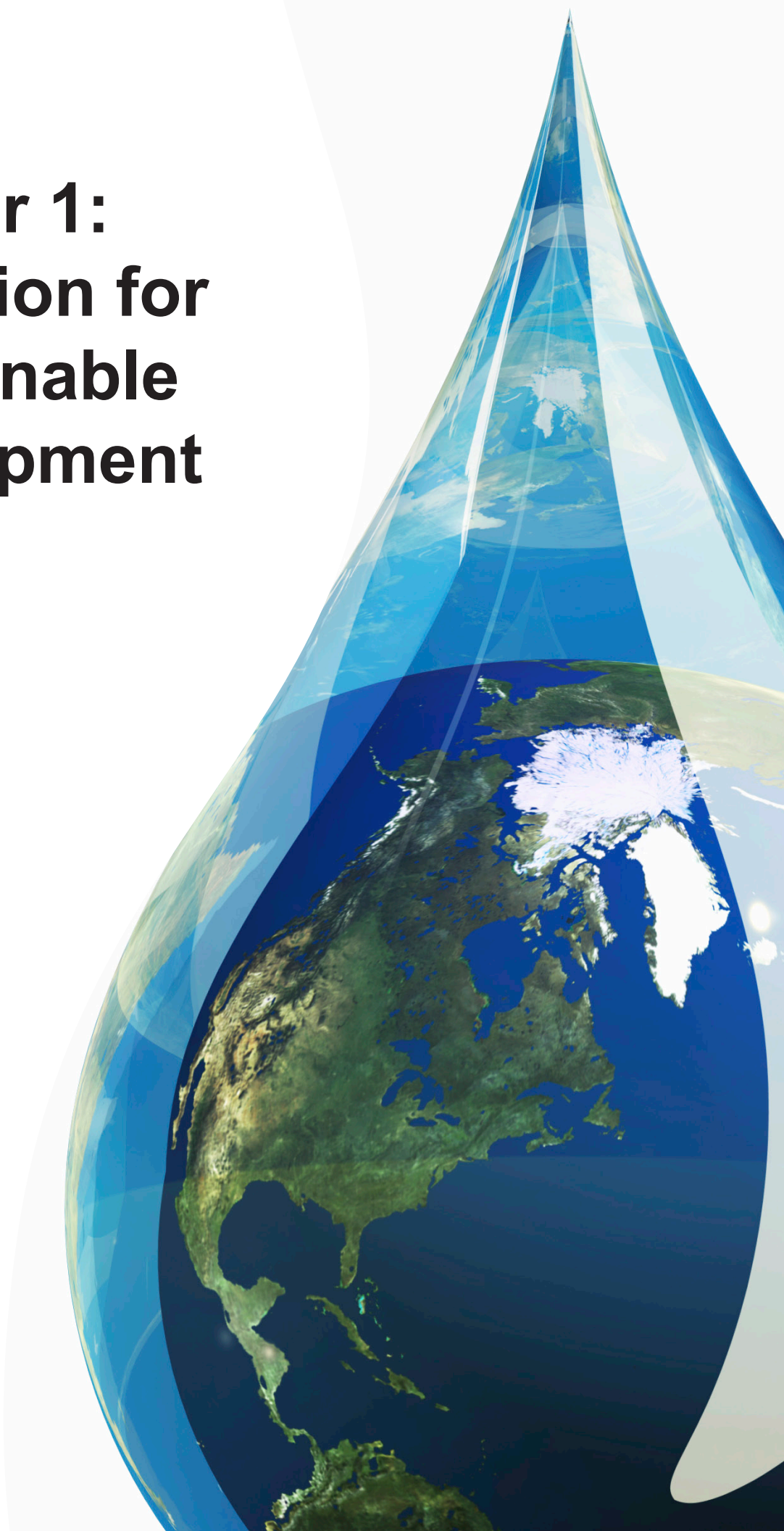
Within each of these pillars, strategic actions will be identified to ensure that sustainability is incorporated throughout all aspects of the campus.

## Defining the Scope of the Plan:

In February 2010 the Office of Sustainability and Sustainability Advisory Committee chose to frame the CSP on the Sustainability Tracking Assessment and Rating System (STARS) managed by the Association for Advancement of Sustainability in Higher Education ([www.aashe.org](http://www.aashe.org)). In 2011, four student, staff, and faculty forums were held to gather input on Sustainability at MacEwan. Highlights of the feedback are presented throughout the annual report. Complete summaries of what students, staff, and faculty had to say can be found at [www.MacEwan.ca/sustainability](http://www.MacEwan.ca/sustainability).



# **Pillar 1: Education for Sustainable Development**



# Pillar 1: Education for Sustainable Development

In 2002, the United Nations General Assembly adopted resolution 57/254 to put in place a Decade of Education of Sustainable Development (ESD) to integrate the principles, values, and practices of sustainable development into all aspects of education and learning (The Canadian Commission for UNESCO, 2010).

ESD challenges the context of learning to make "...human and environment interdependence, values, and ethics a seamless and central part of teaching of all the disciplines" (Cortese, 2003, p. 19). By fostering environmental literacy, learners can develop the skills, knowledge, values, and competencies to effectively understand and address sustainability challenges and build the experiences of an emerging "green-collar" sector.

Within the STARS framework there are three sub categories within Education for Sustainable Development. The CSP will identify actions and deliverables that will foster:

- Sustainability co-curricular education – providing students with sustainability learning experiences outside the classroom
- Sustainability curriculum – providing students with formal education programs and courses that address sustainability
- Research – providing opportunities to conduct research related to, or focused on, sustainability



## Did You Know?

ESD provides the skills and training for those seeking employment focused on sustainability. Green jobs can be defined as work in agricultural, industry, services, and administration that contributes to preserving or restoring the quality of the environment (UNEP, 2008).

# What did students, staff, and faculty say about ESD?

Participants in the sustainability forums identified that MacEwan could enhance sustainability within education and research by:

- Increasing sustainability outreach campaigns and publications
- Incorporating sustainability courses and programs into curriculum
- Establishing a sustainability undergraduate and graduate program
- Creating incentives to conduct academic research in the area of sustainability

Survey responses ranked the following ESD elements as either extremely important or important:

- Sustainability Events - 40 respondents (68.96%)
- Sustainability Courses - 38 respondents (65.52%)
- Sustainability Orientation - 38 respondents (65.52%)
- Sustainability Volunteer Opportunities - 37 respondents (63.79%)

## ESD Initiatives 2009-2011

**Sustainability course identification.** In 2010, the Office of Sustainability completed an initial review of courses currently offered with a link to sustainability. Research was also conducted on incorporating sustainability across the institution, within the curriculum, and infusing it within courses or programs.

**Service Learning Projects.** A number of dedicated instructors and students have identified opportunities to address sustainability in their courses. The Office of Sustainability provided assistance to eight student led service learning projects, as well as presented to four classes on what is occurring at MacEwan. Service learning projects addressed composting, paper reduction, cigarette waste, natural landscaping, waste management, bottled water, single sustainable campus business study, and communications and marketing. The Office will continue to be a resource to students and faculty interested in infusing sustainability into their course work. The Office also participates on the School of Business Principles for Responsible Management Education Coordination Committee [www.unprme.org](http://www.unprme.org).



**Student Outreach Campaigns.** The Office works closely with the Students' Association to support and promote sustainability events on campus. Events promoting the Commuter Challenge, Carpool Week, Earth Hour, Earth Day, Environment Week, Clean Air Day, and Waste Reduction Week, were organized.

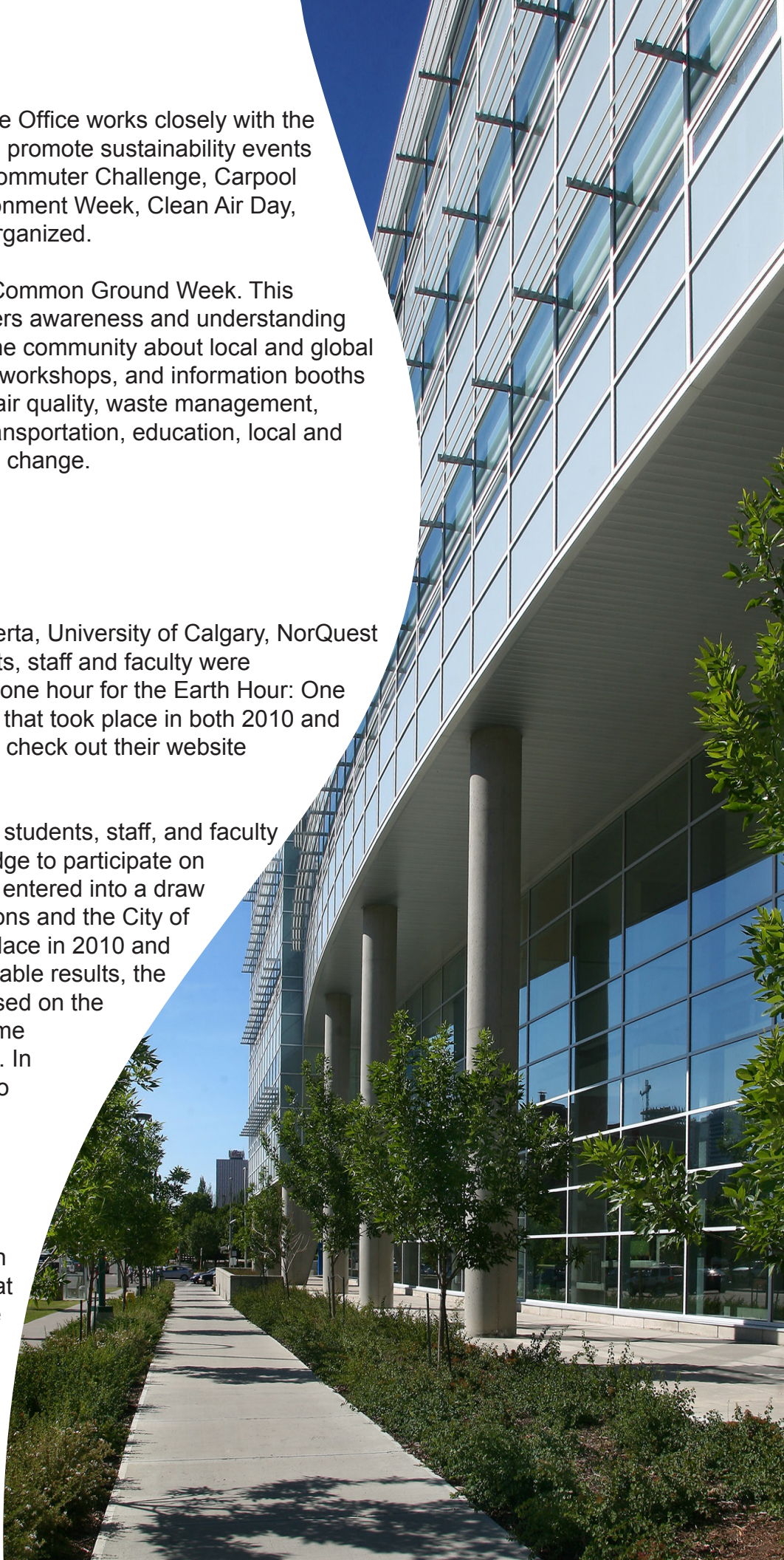
An annual event held every year is Common Ground Week. This Students' Association led event fosters awareness and understanding among students, staff, faculty, and the community about local and global sustainability issues. Presentations, workshops, and information booths focus on a variety of topics such as air quality, waste management, energy conservation, biodiversity, transportation, education, local and organic food production, and climate change.

## Feature:

In a bid to outshine University of Alberta, University of Calgary, NorQuest College and NAIT, MacEwan students, staff and faculty were encouraged to embrace the dark for one hour for the Earth Hour: One Hour. No Power. Campus Challenge that took place in both 2010 and 2011. For information on Earth Hour, check out their website <http://www.earthhour.org>.

The Campus Challenge encouraged students, staff, and faculty from all four campuses to sign a pledge to participate on earth hour. Pledge participants were entered into a draw to win prizes donated by the institutions and the City of Edmonton. MacEwan came in 2nd place in 2010 and 3rd place in 2011. To ensure comparable results, the standings of the institutions were based on the percentage of participation of Full Time Enrollments (FLE) of each institution. In support of Earth Hour, MacEwan also committed to turning off all non-essential lighting and electrical usages on its four campuses during Earth Hour.

This event is planned in collaboration among the Office's of Sustainability at the institutions and has set the stage for future partnerships. By collaborating, these institutions are working in synchrony to foster student, staff, and faculty ambassadors for sustainability.



# **Pillar 2: Sustainable Operations**





## Pillar 2: Sustainable Operations

***“The manner in which [a university] carries out its daily activities is an important demonstration of ways to achieve environmentally responsible living and to reinforce desired values and behaviors in the whole community”  
(Cortese, 2003, p. 91).***

It can be stated that a “...university is a microcosm of the larger community” (Cortese, 2003, p.19). Therefore, sustainable operations on campus serve as an example to students, staff, and faculty to not only learn about environmental stewardship, but to work within it. MacEwan can serve as a model to the community at large of fostering sustainability in everything we do.

Within the STARS framework, the CSP will identify actions and deliverables to address seven sub categories within Sustainable Operations:

- Climate Change, Energy, and Air Quality
- Food Services
- Grounds
- Purchasing and Asset Management
- Transportation
- Waste
- Water

### Did You Know?

It takes 130 trees to produce the amount of oxygen needed to combat the carbon dioxide emitted from one car each year (Commuter Challenge, 2011).



# What did students, staff, and faculty say about Sustainable Operations?

Participants in the sustainability forums identified that MacEwan could enhance sustainability in operations by:

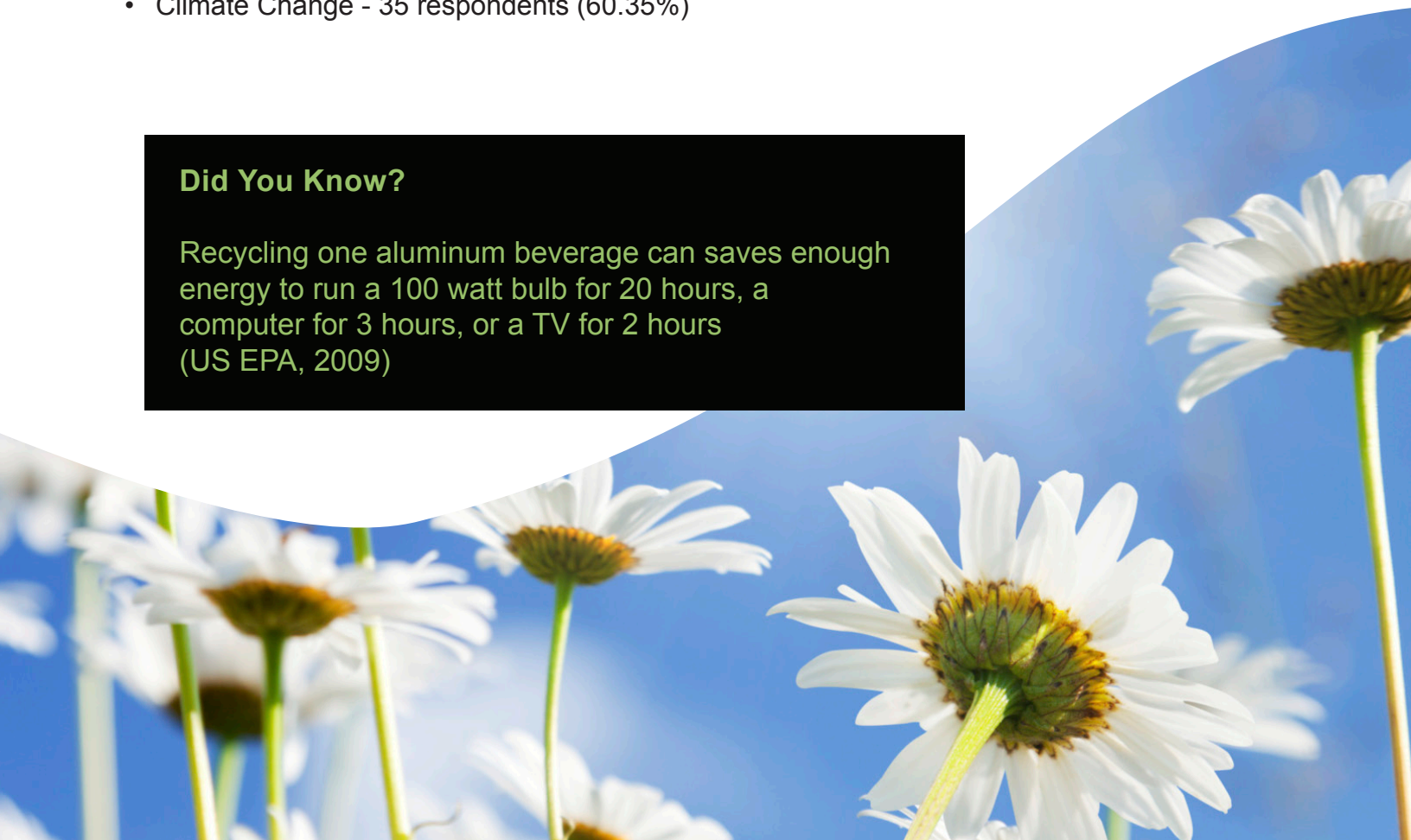
- Investigating additional ways to reduce building energy consumption
- Utilize more renewable energy sources
- Enhance the waste management program to include composting and reduced paper use
- Reduce water consumption on campus including limiting access to bottle water

Survey responses ranked the following operations elements as either extremely important or important:

- Energy Conservation - 55 respondents (94.82%)
- Waste Management - 54 respondents (93.11%)
- Water Management - 52 respondents (89.66%)
- Sustainable Purchasing - 51 respondents (87.93%)
- Sustainable Food Services - 48 respondents (82.76%)
- Alternative Transportation - 47 respondents (81.03%)
- Sustainable Landscaping - 46 respondents (79.31%)
- Climate Change - 35 respondents (60.35%)

## Did You Know?

Recycling one aluminum beverage can saves enough energy to run a 100 watt bulb for 20 hours, a computer for 3 hours, or a TV for 2 hours (US EPA, 2009)

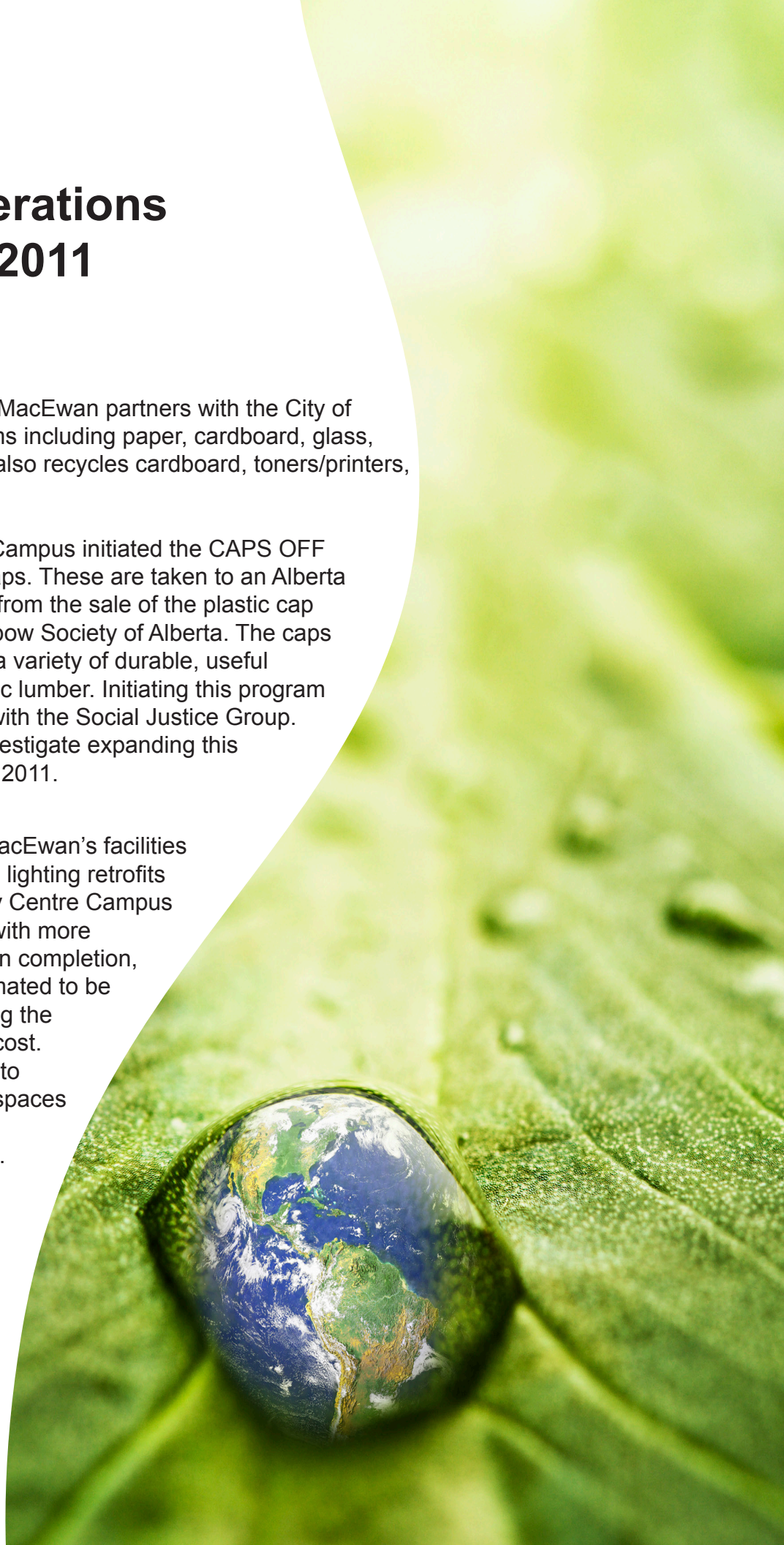


# Sustainable Operations Initiatives 2009-2011

**Enhanced Recycling Program.** MacEwan partners with the City of Edmonton to recycle blue bag items including paper, cardboard, glass, plastic, and aluminum. MacEwan also recycles cardboard, toners/printers, electronics, and fluorescent lights.

In October 2010, the City Centre Campus initiated the CAPS OFF Program to collect plastic bottle caps. These are taken to an Alberta bottle depot and all money raised from the sale of the plastic cap materials are donated to the Rainbow Society of Alberta. The caps are then recycled and turned into a variety of durable, useful products, such as reinforced plastic lumber. Initiating this program at MacEwan was a joint initiative with the Social Justice Group. The Office of Sustainability will investigate expanding this program to the other campuses in 2011.

**Lighting Retrofit.** A number of MacEwan's facilities are in the process of, or have had, lighting retrofits completed. Most recently, the City Centre Campus replaced T12 fluorescent lighting with more efficient T5 fluorescent bulbs. Upon completion, expected energy savings are estimated to be 1.9 – 2.1 million kWh a year, saving the campus over \$250,000 in energy cost. Lighting sensors were also added to classrooms, offices, and meeting spaces for an additional savings of about \$10,000 per year, or 120,000 kWh.



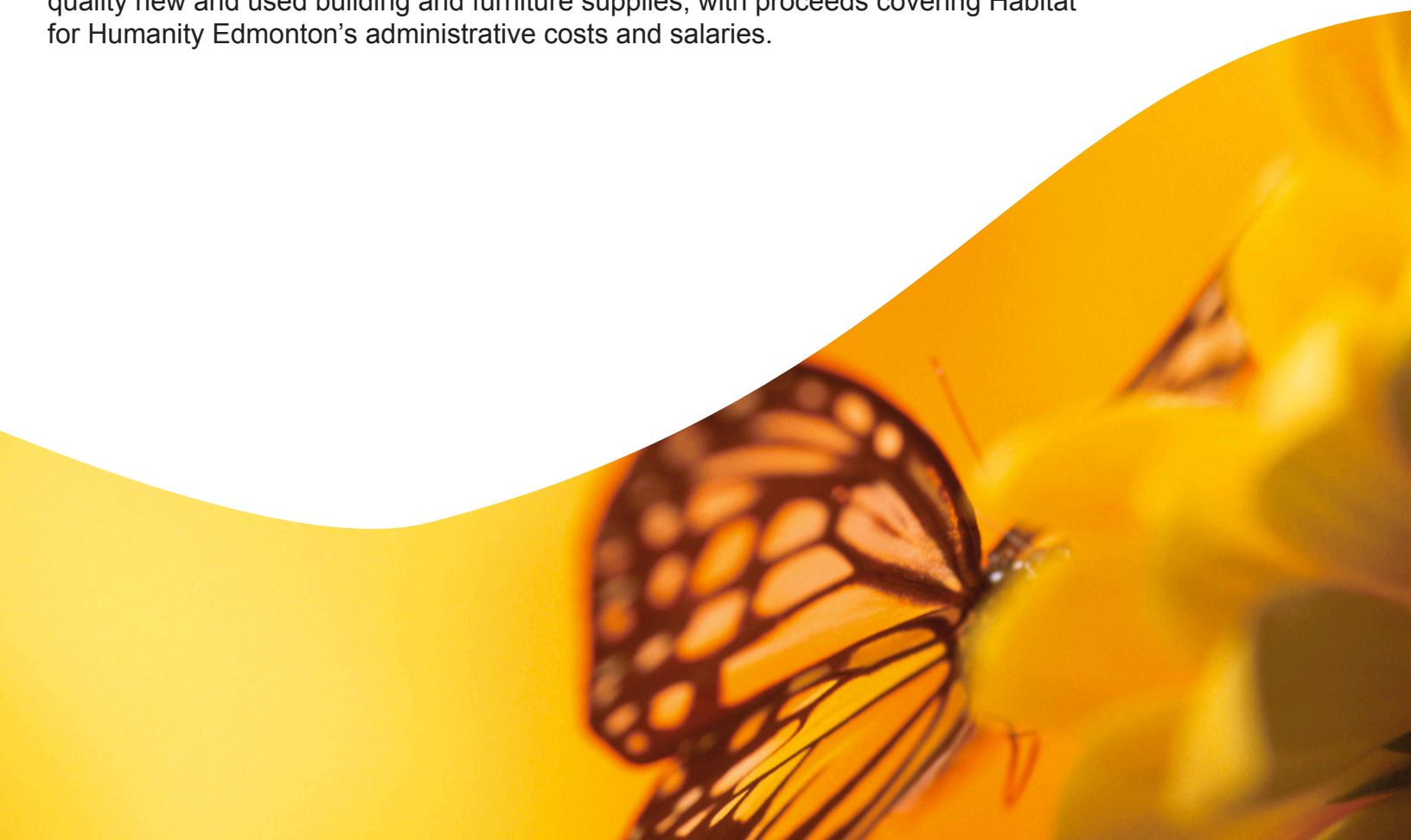
**Transportation.** In 2010 and 2011, three transportation surveys were completed to identify travel patterns of students, staff, and faculty. The Transportation Survey, Student Cycling Survey, and Secure Bike Storage Survey focused on the number of people who used public transit, walked, or cycled. Questions also asked what would encourage individuals to take alternative modes of transportation.

To address bike storage at the four campuses, a bike storage subcommittee for the Sustainability Advisory Committee was struck in November 2009. This group analyzed current storage at MacEwan and is working to identify new opportunities for bike parking. Currently, 100 secure bike stalls are located in the Robbins Health Learning Centre and 18 secure stalls have been added to the West Parkade as part of the University Service Centre LEED application.

To encourage carpooling, carpool designated spots are located at the City Centre Campus, including six preferred stalls in the west parkade and ten preferred stalls in the Robbins Health Learning Centre. MacEwan is also a member of carpool.ca, an online database that matches drivers with similar destination points.

To promote public transportation, eligible students can use the Universal Transit Pass (U-PASS) for unlimited access to regular Edmonton, St. Albert, and Strathcona County Transit services. MacEwan also ran an ETS@Work pilot project in 2008, which subsidizes 24% of the cost of bus fares for staff and faculty. Researching the extension of this project was investigated throughout 2010, including surveying staff and faculty and identifying funding options.

**Surplus Assets.** MacEwan has committed to ensure that surplus assets are disposed of in a sustainable way. In 2010 seven labs were refurbished. Excess millwork was donated to the Habitat for Humanity Edmonton ReStore. The ReStore is a retail outlet that sells quality new and used building and furniture supplies, with proceeds covering Habitat for Humanity Edmonton's administrative costs and salaries.



MacEwan has also investigated donating surplus computers to Computers for Schools, which is a non-profit organization that refurbishes computers and related equipment. Computers are distributed across Canada to schools, libraries, and registered not-for-profit learning organizations.

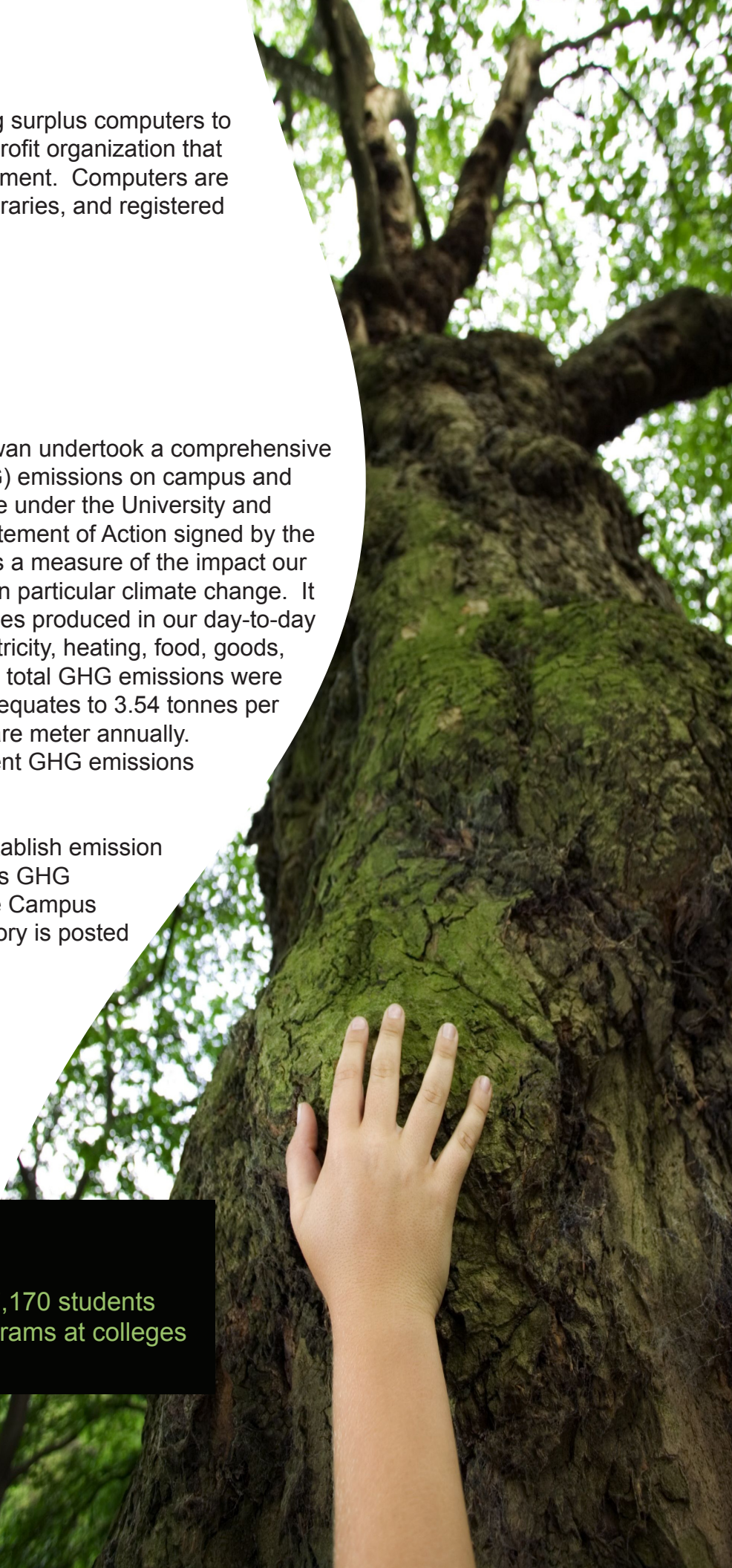
## Feature:

Led by the Facilities Department, MacEwan undertook a comprehensive study to calculate greenhouse gas (GHG) emissions on campus and its carbon footprint. This was an initiative under the University and College Presidents' Climate Change Statement of Action signed by the University in 2009. A Carbon Footprint is a measure of the impact our activities have on the environment, and in particular climate change. It relates to the amount of greenhouse gases produced in our day-to-day lives through burning fossil fuels for electricity, heating, food, goods, services, and transportation. MacEwan's total GHG emissions were calculated at 36,172 tonnes/year, which equates to 3.54 tonnes per FLE annually and 0.153 tonnes per square meter annually. MacEwan will be conducting a subsequent GHG emissions inventory in the fall of 2011.

The next step for MacEwan will be to establish emission reduction targets. Action plans to address GHG reductions will be incorporated within the Campus Sustainability Plan. The complete inventory is posted on the Office of Sustainability website at [www.MacEwan.ca/sustainability](http://www.MacEwan.ca/sustainability).

### Did You Know?

As of 2006, there were a total of 127,170 students enrolled in environment-related programs at colleges and universities in Canada.



# **Pillar 3: Planning, Administration, and Engagement**



## Pillar 3: Planning, Administration, and Engagement

The Planning, Administration, and Engagement pillar seeks to ensure that MacEwan dedicates adequate resources to sustainability coordination, as well as promotes sustainability across campus-wide planning processes. It encourages the professional development among staff and faculty to increase awareness of sustainability, as well as promotes partnerships with other organizations.

### What did students, staff, and faculty say about Planning, Administration, and Engagement?

Participants in the sustainability forums identified that MacEwan could enhance planning, administration, and engagement by:

- Ensuring coordination of sustainability efforts through additional resources (human and financial) dedicated to the University's sustainability platform
- Supporting more sustainable purchasing practices including sourcing more sustainable funding sources and supply chains
- Dedicating funding for sustainable efforts
- Advocating sustainable policies at the University beginning with demonstrable commitment from executive leadership

Survey responses ranked the following planning, administration, and engagement elements as either extremely important or important:

- Sustainability Plans - 53 respondents (91.37%)
- Faculty/Staff Sustainability Orientation - 47 respondents (81.04%)
- Sustainable Budgeting - 45 respondents (77.58%)
- Engaging in partnership and with the community - 43 respondents (74.14%)

### Did You Know?

69% of students surveyed in The Princeton Review's "College Hopes and Worries" (over 12,000 people surveyed) said a college's "environmental commitment" would be a factor in where they applied (The Princeton Review, 2010).



# Planning, Administration, and Engagement Initiatives 2009-2011

**Administration.** The establishment of the Sustainability Policy, Single Sustainable Campus Model, and Office of Sustainability help to achieve the sustainability coordination and planning objectives of the university. Sustainability has also been identified within the University-wide values: “The University, as an educational institution, a responsible employer, and as a good corporate citizen, must actively contribute to the recognition and resolution of the challenges impacting the Earth’s environment and University resources.”

**Policies and Programs.** MacEwan has approved additional programs and policies to ensure sustainability is continuously incorporated into our practices.

The Facilities Green Cleaning Program requires sustainable custodial services to be implemented throughout the institution. Green cleaning is defined as a solution which safeguards human health, while minimizing its impact on the environment (One Simple Act, 2011). MacEwan’s program prevents the use of unsafe cleaning chemicals. Products must be certified by the Environmental Choice Program or approved by Green Seal.

The Facilities Whole Life Cycle Sustainability Policy ensures that the decommissioning, deconstructions, and/or disposal of facilities are in a sustainable manner. All construction, renovation, and deconstruction proposals will consider Whole Life Cycle Costs in project estimates, and projects will comply with LEED practices where possible.

The Facilities Planning and Design Policy ensures that MacEwan will plan and design facilities to meet or exceed building codes for the optimal balance of cost, environmental, social, and human benefits. The integrated approach promotes the principles of whole building design and environmental sustainability.

**Internal Facilitation.** In 2009 and 2010, the Office of Sustainability facilitated internal workshops, retreats, and in-services for departments seeking to learn more about sustainability at MacEwan. Some of these sessions included the Student Services Annual Workshop, Centre for the Fine Arts and Communications Bachelor of Applied Communications Administration Annual Retreat, and Student Resource Centre Annual Retreat. The Office of Sustainability and





Sustainability Advisory Committee have also spoken at meetings held by the Academic Governance Council, Academic Leadership Team, Service Advisory Group, Students' Association, Library Services, Financial Services, and University Services.

**External Presentations.** MacEwan has also had the opportunity to share our journey at external conferences. In 2010, the MacEwan Director of Facilities presented at the Society for College and University Planning conference on the Single Sustainable Campus Model. The same year, the Sustainability Advisory Committee and Office of Sustainability presented at the Alberta Colleges and Institutes Faculties Association on incorporating sustainability at the university. The Office of Sustainability also presented at the Association of Canadian Community Colleges in 2011 on key sustainability initiatives taking place at the institution.

**Communications.** In the first year of operating, the Office of Sustainability website was created ([www.MacEwan.ca/sustainability](http://www.MacEwan.ca/sustainability)) and is continually being updated to provide information on stewardship efforts. Internal updates are also continuously provided to staff through internal newsletters, memos, or presentations.

## Feature:

In 2011, the Earth Common Publication was launched. Earth Common is an online journal that publishes articles written by undergraduate students, graduate students, and faculty focused on conservation, sustainability, and global warming. The Journal is published annually and submissions can be written in a number of forms, from in-depth features, to personal reflections. All submissions must be evaluated by a Peer Review Committee and Editorial Board. Earth Common was conceptualized by Lucille Mazo, instructor in the School of Communications and Professional Writing at Grant MacEwan University. Check out Earth Common at [www.earthcommon.com](http://www.earthcommon.com).

### Did You Know?

College and University enrolments in environment-related programs represented 7.6% of all college and university enrollments in Canada in 2006" (Eco Canada, 2011).



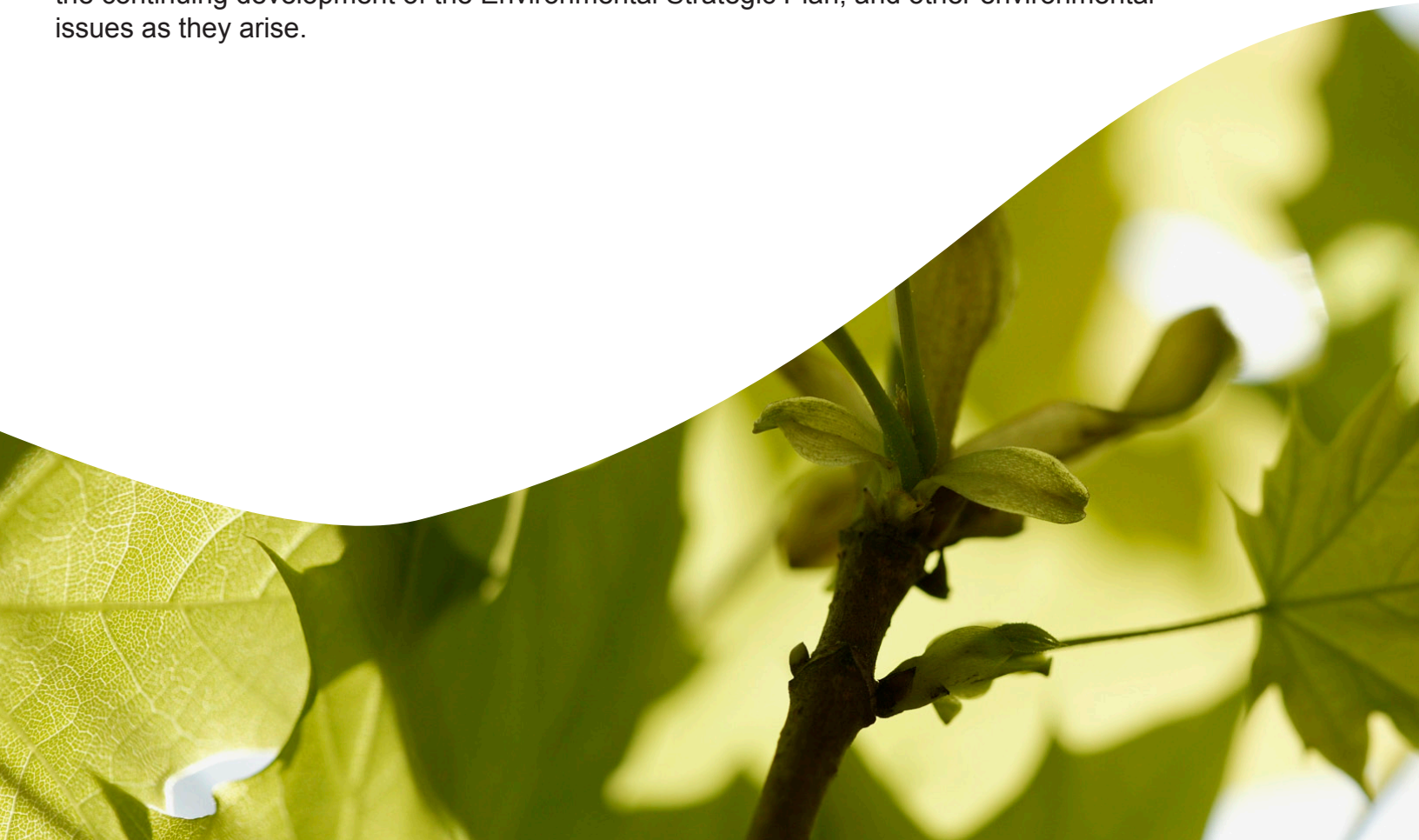
# Memberships and Partnerships

MacEwan participates on the following boards, committees, and organizations committed to sustainability:

**Alberta Capital Airshed Alliance.** The Alberta Capital Airshed Alliance (ACAA) was formed in 2006 to address air quality in the Edmonton capital region. It brings together a diverse range of stakeholders from all three levels of government, various industries, Non Governmental Organizations (NGOs), institutions, and other entities located in the area. The Sustainability Officer represents MacEwan on the ACAA Board and also sits as the Vice-President.

**Association for the Advancement of Sustainability in Higher Education (AASHE).** The Association for the Advancement of Sustainability in Higher Education (AASHE) is an association of colleges and universities across North America and comprises of institutions that facilitate sustainability initiatives on campus. This association ultimately provides a forum and resource base for institutions addressing environmental stewardship. Grant MacEwan University has been a member since 2009 and was spotlighted by AASHE for completing a Greenhouse Gas (GHG) Emissions Inventory in 2010.  
<http://www.aashe.org/>

**Edmonton Environmental Advisory Committee.** The Edmonton Environmental Advisory Committee provides strategic advice and expertise between the community and officials of the City of Edmonton for the continuing development of the Environmental Strategic Plan, and other environmental issues as they arise.



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