SUSTAINABILITY PLAN
2012-2016

“Sustainability is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity.”

—Academic Advisory Committee Working Definition, Office of Sustainability, 2010
Forward

The University of Alberta gives a national and international voice to innovation in our province, taking a lead role in placing Canada at the global forefront. The vision for our Sustainability Plan is anchored on four cornerstones, which provide the foundation for a great university: Talented People; Learning, Discovery, and Citizenship; Connecting Communities; and Transformative Organization and Support.

We are attracting and growing our people so they can address the world’s challenges; creating an environment that allows for formal, informal and applied learning for sustainability; building connections that enhance the ability of our neighbouring communities to be sustainable; and transforming our organization to improve our sustainability performance. Our institution faces similar social, environmental and economic challenges as other post-secondary institutions, communities and countries around the world. We have an opportunity to explore and model how to address the difficult challenges of sustainability through our teaching, research, operations and campus engagement.

The University of Alberta has a long history of offering courses with a connection to sustainability beginning with the Faculty of Agriculture in 1915. Today there are 80 departments offering courses related to sustainability on our campuses. The university’s academic plan is supported by a companion document Integrating Sustainability into the Academic Experience which provides an institution-wide plan for integrating sustainability into our scholarly and educational practices.

Over thirty years ago, the University of Alberta began incorporating sustainability into our facilities and operations. In 2009, an Office of Sustainability was created with dual reporting to the Office of the Provost and Vice-President (Academic) and Office of the Vice-President (Facilities and Operations), with a mandate to promote, unite, and celebrate sustainability in three major areas: facilities, operations, and services; outreach and engagement; and teaching and research.

The university’s Sustainability Plan merges the goals and strategies of many teams and individuals across our institution, and expands our efforts to incorporate sustainability into more aspects of our campus. The University of Alberta is committed to working together to achieve a sustainable future.

A focus on sustainability will also help us advance the University of Alberta’s vision and all four cornerstones. Our institution’s vision is “To inspire the human spirit through outstanding achievements in learning, discovery, and citizenship in a creative community, building one of the world’s great universities for the public good.” This vision is in keeping with that of our founder Henry Marshall Tory.

Carl Amrhein
Provost and Vice-President (Academic)

Don Hickey
Vice-President (Facilities & Operations)
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1 INTRODUCTION
The University of Alberta recognizes that the planet faces serious socio-ecological predicaments, and that the survival of human life depends upon positive social, economic, technological, and ecological action. As consciousness grows about climate change, resource scarcity, overpopulation, pollution, and other issues related to ecology, economics, social justice, health, and well-being, the University of Alberta will be increasingly called upon to support the transition to a sustainable society.

We acknowledge that humanity has played a major role in the social, economic and environmental problems we face today. We also know that humanity will play a significant role in solving or adapting to these challenges. By integrating sustainability into the many aspects of university life, on our campuses, in our institution, and in the larger community of which we are a part, the University of Alberta’s students, faculty and staff will understand socio-ecological problems and develop means for building a sustainable future. We will become a leader in the multiple branches of sustainability, thereby contributing to the maintenance and enhancement of life on Earth.

The University of Alberta embraced this leadership role in 2008 by launching a university-wide sustainability initiative. Building on many years of sustainability practices and programs already in existence on campus, the university’s sustainability initiative brings the efforts of many individuals and teams together, creating a more formal focus on our sustainability efforts.

The sustainability initiative addresses three focus areas: 1) outreach and engagement, 2) academic teaching and research, and 3) facilities, operations and services. These areas largely mirror the categories used by the Sustainability Tracking, Assessment and Rating System (STARS™) which is used to measure and report on our institution’s sustainability performance.

The Office of Sustainability is the hub of the University of Alberta’s sustainability initiative. It exists to grow and enable a campus-wide network that works together to advance our sustainability performance. The Office of Sustainability reports to both the Office of the Vice-President, Facilities and Operations, and the Office of the Provost and Vice-President Academic.

The University of Alberta recognizes that we must do things differently to achieve sustainability. It requires balancing economic success with environmental and social considerations – also known as the triple bottom line.

The Sustainability Plan is a comprehensive, working document that fosters discussion, captures new ideas and inspires adoption of practices. It collates strategic goals and initiatives identified by staff, faculty and students from across our institution that will enhance our sustainability performance in the next four years. Some strategies involve quick wins and incremental changes to existing practices. Other strategies may require deep changes to policy and governance approvals. All decision-making regarding strategies will give consideration to the triple bottom line.
1.1 Sustainability Commitment

The sustainability initiative is guided by the institution’s Sustainability Commitment and Guiding Principles which were formalized in 2008 with the support of the Board of Governors.

The University of Alberta is committed to a continuous effort to instill sustainability into the many aspects of university life, on our campuses, in our institutions, and in the larger community of which we are part. In alignment with its values, vision and mission, the university takes an integrated approach to sustainability that incorporates teaching and learning, research, outreach, and the operations that support them, as it builds one of the great universities for the public good. The university strives to manage all resources in harmony, recognizing the interconnectedness of ecological, social and economic systems. To this end, the University of Alberta is committed to constant improvement guided by the following principles:

Integration
- Encourage the development of collaborative solutions involving all stakeholders.
- Promote a culture of integrated sustainability through excellence in teaching, learning, innovative research, and community engagement.

Education and Outreach
- Aid students and all other members of the university community in developing the knowledge and tools necessary to become informed future leaders, and global citizens during their experience at the University of Alberta.
- Promote a culture of sustainability at the university by providing opportunities for participation, discovery learning, and transformative experiences.
- Contribute to, and participate in, the advancement of sustainability in the local and global communities by sharing knowledge, expertise, best practices, and lessons learned.

Research
- Support innovative research and inquiry that improve understanding of challenges to sustainability and lead to real-world solutions and problem-solving.
- Encourage a collaborative approach to research that includes faculty research undertaken in partnership with operations staff, students, community organizations, industry and any other potential stakeholders.

Improvements in Operations and Practices
- Develop strategies and objectives that conserve resources, decrease the production of waste, minimize ecological footprints, and decrease greenhouse gas emissions.
- Provide practices aimed at sustainable supply chain management.
- Develop processes that support long-term ecological, socially, and fiscally responsible decision-making in activities, operations and practices.
**Stewardship**

- Protect the natural environment by enhancing local and global ecosystems and biodiversity for both present and future generations.
- Contribute to the protection of the Earth’s environmental life-supporting systems by minimizing the pollution of air, water, and soil.
- Aim to enhance the global environment through balanced and positive social, economic, and ecological activities.

The Sustainability Commitment and Guiding Principles will be updated periodically.

**1.2 Planning Process**

The Office of Sustainability helps coordinate and stimulate the sustainability initiative, through efforts of individuals and groups across all of our campuses. The Office of Sustainability is responsible for facilitating the development of the Sustainability Plan and coordinating reports on our progress.

A series of dialogues, consultations, gap analysis and reviews were used to create the Sustainability Plan (see below).
The Deliberation on Campus Sustainability (DoCS) was a student-lead initiative where the Office of Sustainability provided oversight and aided in the coordination of the consultation efforts within the broader university community. This project gave students, staff, and faculty an opportunity for input into the University of Alberta’s sustainability planning from January to April 2011. The DoCS process included a campus-wide survey and a series of three dialogues.

Phase 1 was launched in January 2011 with a survey measuring sustainability priorities, which was completed by 1,742 members of the campus community. The first dialogue, saw 80 students, staff, and faculty give consideration to the survey results and their own ideas leading to the identification of six priority issue areas for campus sustainability.

Phase 2 occurred in March 2011 and engaged 59 participants. It began with deep dives – where key knowledge-holders presented their perspective on sustainability and answered questions emerging from the Phase 1 deliberations. In the Phase 2 deliberation 37 participants explored the six priority issue areas in greater depth to develop a set of recommendations (referenced in the Campus Voices document). In October 2011, DoCS was recognized with a case-study award by the Association for the Advancement of Sustainability in Higher Education (AASHE).

In addition to DoCS, this Sustainability Plan is informed through individual and committee-level conversations, and existing practices, plans, activities and recommendations included in the following documents:

- Sustainability Commitment and Guiding Principles (2008)
- Travel Demand Management Plan (2007; update to this plan is in progress)
- Urban Land Institute Report for South Campus (2009)
- Campus Voices – Final Report of the Deliberation on Campus Sustainability (2011)
- Comprehensive Institutional Plan (2012)
- City of Edmonton’s Environmental Strategic Plan - The Way We Green (2011)
- Dare to Discover (2011)
- Dare to Deliver: Academic Plan 2011-2015 (2011)
- Greening the Campus: Sustainability Measures and Initiatives (2009)
- Integrating Sustainability into the Academic Experience – Companion Document to Dare to Deliver (2010)
- Sustainability Tracking, Assessment and Rating System (2012)

There is much to celebrate at the University of Alberta. We are proud to be among a growing number of institutions of higher education that have a broad-ranging plan to advance sustainability across our institution. We also recognize there are many opportunities to continue this work and further improve our performance, in implementing operational changes to reduce our greenhouse gas emissions and expanding sustainability across formal and informal modes of curriculum and research.
2 MEASURING SUSTAINABILITY PERFORMANCE
The University of Alberta has participated in two formal performance metric systems. The Sustainability Endowment Institute (SEI) produces the College Sustainability Report Card. The University of Alberta was recognized as a campus sustainability leader by SEI in both 2010 and 2011. SEI is now collaborating with the Association for the Advancement of Sustainability in Higher Education (AASHE) to enhance collaboration in sustainability reporting initiatives. AASHE developed a more extensive performance measurement framework for post-secondary institutions called Sustainability Tracking, Assessment & Rating System (STARS™). The University of Alberta registered as a charter participant in STARS™ in 2011.

STARS™ is a voluntary self-reporting framework for recognizing and gauging relative progress towards sustainability. STARS™ helps the University of Alberta to:

- Track and report on our sustainability performance
- Facilitate information sharing and access to information about our sustainability practices
- Enable meaningful comparisons over time of our performance using a common set of measurements developed by the campus sustainability community
- Create incentives for continual improvement
- Build a stronger culture of sustainability

The Office of Sustainability will coordinate with stakeholders across the university to prepare a submission to STARS™ every 2-3 years. Our first submission for a rating will be in February 2012.

3 GOALS & KEY PRIORITIES
This section outlines the University of Alberta’s goals for promoting and implementing sustainability. This Sustainability Plan addresses 17 goals that largely mirror the three pillars in our sustainability initiative, and the main reporting categories in STARS™: 1) Education & Research, 2) Operations, and 3) Planning, Administration & Engagement.

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Below is a short list of key strategic areas, that will produce meaningful results across a wide range of sustainability areas:

1. Launch an embedded undergraduate sustainability certificate.
2. Design and deliver faculty development workshops.
3. Completion of a sustainability literacy assessment.
4. Expand implementation of the Building Owners and Managers Association, Building and Environmental Standards (BOMA BESt) program.
5. Develop an institution-wide greenhouse gas emissions reduction plan.
6. Launch the new energy management program.
7. Develop an institution-wide sustainable food systems strategy.
8. Update the transportation demand management study.
9. Improve waste diversion rates and explore ways to reduce packaging waste.
10. Grow outreach program related to green procurement.
11. Implement a campus-wide water reduction initiative.
12. Incorporate sustainability into staff and faculty orientation and leadership development programs.
13. Update sustainability commitment and guiding principles and develop place-based sustainability plans for Augustana Campus and Campus Saint-Jean.
14. Enhance engagement in national and international initiatives related to sustainability in higher education.

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<td>Investment</td>
<td>16. Achieve a long-term rate of return that in real terms shall equal or exceed the rate of spending established for endowments, within an acceptable level of risk.</td>
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<td>Public Engagement</td>
<td>17. Grow opportunities for students, faculty and staff to engage with each other on sustainability issues both on and off-campus.</td>
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3.1 Education & Research
3.1.1 Co-Curricular (Student Outreach and Engagement)

Student engagement is at the core of the University of Alberta’s commitment to learning, discovering and citizenship. Learning comes alive through the opportunities that are made available both on and off campus. The Report of the Provost’s Advisory Task Team on Student Engagement (2009) suggests the co-curricular experience “includes the supporting services, activities, and campus facilities that encourage and help facilitate student success around four areas: academic engagement, social/community, health and wellness, and career/life development.” Sustainability has served and will continue to serve as an excellent platform for engagement in all of these areas. Campus programs and accomplishments include:

The University of Alberta’s accomplishments include:

- Outreach projects: International Week, Campus Sustainability Summit, Care for Our Air, Campus Sustainability Tours, Sustainability Awareness Week, One Simple Act on Campus, Deliberation on Campus Sustainability, RecycleMania, Waste in Residence Project, Earth Hour and more.
- SUSTAIN SU’s student sustainability services: Reusable Dish Program, SUSTAINexchanges, Bike Library, Campus Gardens, Rethink.
- Four community gardens that promote organic and sustainable growing practices.
- Campus sustainability volunteers and student sustainability internships.
- Community service-learning programs and student placements with sustainability oriented organizations.
- Creation of outreach materials and publications to enhance awareness of campus sustainability accomplishments, activities and ways to get involved.
- Embedding sustainability into Orientation (for new students) and Week of Welcome (for new and returning students).
- Expanded coverage of sustainability by both campus and off-campus media.

**Goal:** Inspire students, faculty, and staff to engage in sustainability-oriented activities that develop leadership, foster social and moral responsibility, and contribute to the further enhancement of our society and its institutions.

**Strategies:**

a) Explore opportunities to involve community experts in sustainability as teachers and mentors in courses and programs.

b) Enable students to become more involved in sustainability by offering community service-learning, co-curricular activities, and access to a sustainability fund.

c) Facilitate campus-wide dialogue on sustainability by generating micro-grants that support deliberative dialogues, workshops, colloquial, seminars, conferences, and speaker series.

d) Develop and launch a green event and green office certification program.

e) Develop additional outreach and engagement programs to promote awareness and engagement in sustainability-related services, initiatives and groups.
f) Expand programs that engage students to serve as educators in peer-to-peer sustainability outreach.
g) Grow the inclusion of sustainability in orientation activities and programs.
h) Explore the opportunity to establish a sustainability-related theme for a semester, year or first-year experience.

3.1.2 Curriculum
Established in 1908, the University of Alberta has a long history of offering courses with a connection to sustainability beginning as far back as the creation of the Faculty of Agriculture in 1915. More recently, “Integrating Sustainability into the Academic Experience” was written as a companion document to Dare to Deliver (the University of Alberta’s academic plan). It provides an institution-wide plan for integrating sustainability into the scholarly and educational practices at the University of Alberta between 2011 and 2015.

As of November 2011, there are 80 departments offering courses on campus, with 40 of them offering at least one sustainability-focused or -related course. Together, across all campuses, faculties offer 79 courses that are sustainability-focused, and 339 courses that are sustainability-related. More information on these offerings is available on the Office of Sustainability’s website.

Goal: Broaden integration of sustainability into the academic experience.

Strategies:
  a) Enable all departments and faculties to implement courses related to sustainability and to integrate sustainability into existing courses for degree and non-degree learners.
  b) Support research in all faculties to further knowledge of sustainability and related matters.
  c) Establish certificates in sustainability as adjuncts to specialization area programs.
  d) Develop sustainability certificate that enables students to pursue multiple interests and interdisciplinary learning.
  e) Strengthen and develop research on society and culture to advance the understanding and resolution of complex issues that underpin many of Alberta’s socioeconomic challenges and those of Canada and the international community.
  f) Invite a faculty member to co-develop a sustainability literacy assessment with students that involves measuring the same cohort over time at least once every 2-3 years.
  g) Expand the number of graduates that are exposed to programs that have sustainability learning outcomes.
  h) Develop additional outreach and engagement programs to promote awareness and engagement in sustainability-related studies and associated funding opportunities.

3.1.3 Research
The University of Alberta has an internationally recognized strength in research related to sustainability. Currently, 192 faculty members and 36 academic departments are identified as being engaged in sustainability research.

We are one of Canada’s top institutions in research with more than $536 million in external research funding. Our research strengths address everything from humanities and society,
to energy and the environment. Research at our institution has a huge positive impact on the lives of Albertans, Canadians and people around the world. Our research efforts generate another $450 million in spending and supports more than 17,000 jobs directly and indirectly.

There are many faculties, centres and institutes doing work to address the social, environmental and economic aspects of sustainability, including but not limited to: the Canadian Circumpolar Institute (CCI), the Helmholtz-Alberta Initiative (HAI), the Centre for Global Citizenship Education and Research (CGCER), the Centre for Earth Observation Sciences (CEOS), the City-Region Studies Centre, and the Office of Sustainability's Sustainability Enhancement Fund. The Undergraduate Research Initiative was launched in September 2011 to support undergraduate student leadership and experience in research, and it provides an important opportunity to profile campus-related sustainability research needs.

**Goal:** Generate and disseminate knowledge that informs policy for a sustainable future through inter-disciplinary research activities of faculty and students.

**Strategies:**

a) Encourage the campus community to identify research needs related to campus sustainability and to promote these programs throughout the campus community through vehicles like the Undergraduate Research Initiative.

b) Seek opportunities to assist faculty members and departments conducting research into sustainability.

c) Grow incentive programs to encourage students and faculty to research various aspects of sustainability.

d) Develop additional outreach and engagement programs to promote awareness and engagement in sustainability-related research and associated funding opportunities.

### 3.2 Facilities, Operations & Services

#### 3.2.1 Buildings

The University of Alberta strives to design, construct and maintain its buildings in a sustainable manner. It endeavors to build upon its past success through the evolution of current and development of new green building guidelines. Recently constructed green buildings include Triffo Hall, which achieved LEED® Gold certification for New Construction and Major Renovation. Six other new facilities totaling over 184,046 m² are currently pursuing minimum LEED® Silver certification. The university’s North Campus and Augustana Campus recently completed an assessment of 10 buildings under the Building Owners and Managers Association, Building and Environmental Standards (BOMA BEST) certification which gives credit for environmental performance and management of our campuses’ assets.

**Goal:** Provide sustainable places to study, work and live through sustainable planning, design, construction, retrofits, and operations.

**Strategies:**

a) Seek a minimum Leadership in Energy and Environmental Design (LEED®) Silver
certification or equivalent for new buildings, and where feasible, on major renewal projects. Work with the provincial government in assessing additional green building rating systems (such as Green Globes) in order to gather a suite of rating system tools, which may be adapted to the specific needs of each project.
b) Expand the implementation of the Building Owners and Managers Association, Building and Environmental Standards (BOMA BEST) program to enhance the energy and environmental performance of existing facilities.
c) Review our current Design Guidelines and Commissioning protocols, and update as required, to ensure we maintain green performance standards for new, renovated, and retrofitted university buildings, which incorporate high levels of energy efficiency performance.
d) Formalize and further develop Sustainable Operations and Maintenance Guidelines and Procedures that expand upon existing green operational practices.
e) Take and create opportunities to incorporate sustainability elements in infrastructure upgrade and facility alteration projects.
f) Continue to develop and use library of LEED® credits applicable to all major new construction projects on campus.
g) Ensure that recycling and composting program needs are accommodated in the design of all new and renovated buildings.
h) Include sustainability commitment and experience as a key criteria in the selection of external design professionals.
i) Increase staff capacity in the area of green building practices across Facilities and Operations.

3.2.2 Energy & Climate
The University of Alberta has operated an extremely successful Energy Management Program (EMP) since 1975. As a result of these efforts the university has saved over $258 million in utility costs and reduced its cumulative greenhouse gas (GHG) emissions by over 2.3 million tonnes. Completion of the current seven-year Energy Management Program is predicted to further reduce the University’s CO₂ emissions by an additional 27,000 tonnes per year. The university currently operates the largest District Energy System (DES) in Canada, including a heating plant, electrical plant, two cooling plants, and ten kilometers of underground service corridors. Further energy and GHG savings are achieved through cogeneration, peak power generation, and free cooling. Since 1996/1997, the DES and EMP have collectively reduced the university’s CO₂ emissions by 27 per cent.

**Goal:** Continue to reduce the University of Alberta’s greenhouse gas emissions through continued action on energy efficiency and conservation and through implementation of renewable and alternative energy on campus.

**Strategies**
 a) Complete and release the University of Alberta’s Greenhouse Gas Emissions Inventory for all of our campuses and establish annual GHG inventory reporting processes.
d) Implement new energy reduction projects by launching a new second generation Energy Management Program.

e) Expand Energy Management Program activities to include Ancillary Services and their residence operations.

f) Explore the University of Alberta’s District Energy System’s capacity for additional co-generation.

g) Develop a strategy and plan for further renewable energy implementation on campus, including:
   • Piloting renewable energy implementation on the Chemical Materials Engineering Building and the Physical Activity and Wellness Centre
   • Increasing the capacity for renewable energy generation on campus
   • Pursuing renewable energy implementation in South Campus development
   • Assessing the potential for waste recovery and gasification options

h) Work with Supply Management Services and Academic Information and Computer Technologies to incorporate standards and guidelines regarding equipment purchases to ensure highly efficient equipment, which is Energy Star rated.

i) Re-commission existing buildings to ensure all are operating in the most efficient optimal state with respect to their age and current base building systems.

j) Develop outreach and engagement programs to promote reduced energy use on campus.

3.2.3 Food & Dining Services

University Dining Services has already taken steps to reduce its environmental impacts. Lister Dining Hall recently switched to all china service to reduce waste, save money and encourage organic waste collection. University Dining Services offers post-consumer composting services in some locations, reusable mug discounts and provides reusable containers for patron use.

The Augustana Campus has implemented tray-less dining to reduce food and water waste and has adopted a Sustainable Food Policy that prioritizes the purchase of food from local suppliers and from farmers who implement sustainable farming practices.

**Goal:** Continue to enhance incorporation of sustainable criteria into food purchasing, preparation, waste disposal and related equipment and supplies.

**Strategies:**

a) Work within the context of the University’s Dining Services Agreement and procurement of contract services to advance sustainability in campus food systems.

b) Create a multidisciplinary working group to develop an institution-wide Sustainable Food Systems strategy at the University of Alberta.

c) Conduct a sustainability audit to identify opportunities for reducing the impact of University Dining Services’ operations.

d) Define ‘sustainable food’ on campus, and work to identify and achieve procurement targets over time for food that meets the selected criteria.

e) Create a voluntary Green Dining Commitment for all food-service vendors on campus.
f) Increase the proportion of organic waste diverted from university dining facilities.
g) Develop an outreach and engagement program to promote sustainable food choices to students, staff and faculty.
h) Develop outreach programs that support healthy, sustainable food choices.

3.2.4 Grounds
The University of Alberta strives to keep its grounds aesthetically pleasing, while reducing the impact of their maintenance on the environment. Sustainable grounds practices already employed include Integrated Pest Management, composting of leaves, lawn and flower clippings, use of native and drought tolerant plants wherever feasible, xeriscaping, decreased frequency of mowing, and a satellite-controlled, weather-informed irrigation system. Grounds staff use only organic (not chemical) fertilizers. In addition, wherever possible, gravel is used for snow and ice maintenance during the winter months. A pilot program was launched in 2011, testing the feasibility of beet juice as a de-icing alternative. Large green spaces are protected for the enjoyment of campus users and local wildlife.

**Goal:** Further develop sustainable grounds management practices through the incorporation of ecological principles, while fulfilling the recreational needs and aesthetic standards of the university community.

**Strategies:**
a) Reduce the amount of domestic water used for irrigation and explore opportunities to use recycled storm water.
b) Complete the Organic Turf Management Pilot Project and assess for implementation of regime across campus.
c) Build a solar-electric charging station for our electric grounds vehicles.
d) Promote increased use of native plant species on campus.
e) Continue to evaluate possible alternatives to concrete in hard landscape construction and maintenance and identify other Low Impact Development best practices for possible implementation on campus.
f) Identify possible organic herbicides for deployment in hard to manage areas or where hand-picking of weeds is unsafe.
g) Increase integration of edible landscaping into campus grounds.
h) Work to increase biodiversity on campus.

3.2.5 Transportation
The University of Alberta has taken steps to decrease the environmental impact of transportation to and through the university’s campuses. A Universal Transit Pass Program (UPASS) offers students transit passes at a reduced rate through subsidies funded by the Travel Demand Management Program. The Staff Limited Use Transit Pass (LPASS) encourages employees to use the LRT for work-related travel between our South, North and Downtown campuses, as well as a shuttle service from our North Campus to Campus Saint-Jean. Ancillary Services has also partnered with Hertz on Demand to run a car-sharing program on campus.
The university owns twenty-one hybrid vehicles and several alternative fuel vehicles, ten solar-powered golf carts for grounds staff, and a free shuttle service runs between our North Campus and Campus Saint-Jean. The SUSTAIN SU Bike Library provides bicycle rentals and free bicycle mechanic services to students.

**Goal:** Reduce the environmental impact of university-related transportation by decreasing single occupant vehicle trips to our campuses and ensuring university community members have access to sustainable transportation options.

**Strategies:**

a) Complete audit of fuel used by university fleet vehicles on an annual basis; establish a baseline for fuel-use and develop a plan to reduce fuel usage in the future.
b) Update the 2007 Travel Demand Management (TDM) study to reflect current modal splits and identify new opportunities for action.
c) Increase awareness of sustainable transportation options by building upon existing and creating new outreach and incentive programs.
d) Continue to replace aging fleet vehicles with alternative fuel and power technologies.
e) Develop dedicated indoor end of journey facilities for cyclists.
f) Increase the availability of on-campus housing to reduce individual travel demands.
g) Reduce the amount of university-owned fleet vehicles.
h) Work towards incorporating bio-diesel in all diesel-run vehicles.
i) Incorporate idling reduction information into mandatory fleet safety training.
j) Implement preferred parking for carpoolers at the Jubilee and E-lot parking lots.
k) Continue to employ parking allocation, delivery and rate structures that support TDM strategies.
l) Develop South Campus as a pedestrian and cyclist-friendly campus.

### 3.2.6 Waste

With over 50,000 (or full time equivalent) students, staff and faculty on North Campus, reducing the amount of waste created and sent to landfills has long been a priority for the University of Alberta. A paper recycling program was first introduced at the university over thirty years ago and the university has been collecting beverage containers since the early 1990s.

Since 2005, the university has decreased the amount of waste we divert from landfill from 22% to 33%. In 2007, the university expanded its recycling program by building a Recycling Transfer Station to facilitate the collection of additional recyclables, including glass and light metals, plastics, and organic waste. In 2010, nearly 850 tonnes of recyclables and organics, and 350,000 beverage containers were diverted from landfill.

**Goal:** Expand waste reduction initiatives across all campuses and increase the amount of waste diverted from the University of Alberta’s North Campus to 50% by 2015.

**Strategies:**

a) Develop a solid waste management plan for the University of Alberta.
b) Establish a working committee to advise on the advancement of recycling and solid...
waste management programs at the University of Alberta.
c) Work towards the implementation of a single stream recycling program on campus.
d) Introduce a pilot program for post-consumer organic waste collection in office spaces.
e) Develop an organic waste collection pilot program for collecting paper towels in washrooms across campus.
f) Work with Supply Management Services to develop a strategy for reducing packaging waste on campus.
g) Develop specific programs to improve waste diversion in residence and ancillary service buildings, and during move-in and move-out periods.
h) Explore ways to reduce use of polystyrene packaging and food containers.
i) Work collaboratively with the Faculty of Engineering to develop annual waste audit methodologies suited to the University of Alberta’s specific context.
j) Pilot and assess a waste-to-energy project to enable further waste diversion and reduce reliance on fossil-fuel based energy sources.
k) Improve tracking and diversion of construction and demolition waste on campus.
l) Continue to sponsor the annual E-Waste Round-Up and explore options for developing an institutional e-waste strategy.
m) Leverage incentives, education and partnerships to improve waste reduction on campus (e.g., freestores, education sessions in student orientation, model student residence, and waste diversion event volunteers).
n) Continue to explore methods to reduce the chemical waste footprint associated with education and research activities.

3.2.7 Water
Several initiatives at the University of Alberta have resulted in significant reductions in water usage since 1975. Each building on campus is metered for water usage and measured on a monthly basis, campus irrigation systems are satellite monitored and fully programmable, and motion sensors and low-flow fixtures have been installed in newer buildings and retrofitted into older buildings.

Augustana Campus recently installed a 76.8 cubic metre rainwater tank to collect water that is then used for campus irrigation. The university’s Cleaning for a Healthy U green cleaning program uses state of the art cleaning equipment that has reduced the amount of water used for cleaning purposes by 33% compared to traditional practices – this amounts to 230-265 cubic metres of water per year.

**Goal:** Reduce the university’s annual water consumption intensity through action on water efficiency and conservation.

**Strategies:**
a) Complete a campus-wide water audit on non-lab facilities.
b) Develop an institution-wide Water Reduction Plan.
c) Implement a campus-wide Water Reduction Initiative for non-lab facilities as part of the next generation Energy Management Program.
d) Develop and upgrade current specifications and guidelines to incorporate a standard for water efficient systems for all major renovations, new construction projects, and facility upgrades.

e) Expand water reduction activities to include residences and ancillary services.

f) Complete a campus-wide audit of all lab and research equipment using domestic potable water.

g) Develop an institution-wide strategy to work with faculties and departments to explore initiatives to use water more efficiently in labs, lab equipment/processes and research activities.

h) Work with Supply Management Services on procurement guidelines and specifications, focusing on energy and water-efficient equipment.

i) Leverage incentives, education and partnerships to encourage water conservation.

j) Explore different options for increasing the use of captured rain or grey water.

3.2.8 Purchasing
The University of Alberta purchases a wide range of goods and services with current annual expenditures of over $400 million. Supply Management Services provides the University of Alberta with efficient and effective procurement and contract management and distribution processes and systems. In 2011, Supply Management Services partnered with the Office of Sustainability on the development of green procurement principles and an accompanying outreach strategy.

**Goal:** Strengthen our leadership and practices in sustainable purchasing.

**Strategies:**

a) Expand education and outreach program to raise awareness and use of green procurement principles with staff, faculty and suppliers.

b) Incorporate sustainability into competitive bidding requests for proposals.

c) Explore opportunities to build product “take-back” programs into new contracts and contracts that come up for renewal.

d) Develop an education and outreach program to expand awareness and use of “take-back” or “recycling” programs for goods at the end of their life.

e) Work with preferred suppliers to improve the visibility and number of environmentally-preferred products available.

f) Work with U of A Bookstore to expand the number of environmentally- and socially-preferable products available.

g) Pursue a policy, guideline or directive that states a preference for purchasing of recycled content office paper.

h) Subject to the requirements of applicable Trade Agreements, explore opportunities to partner with local food organizations to make purchasing arrangements that drive demand and reduce the cost of more local and sustainable products.

i) Subject to the requirements of applicable Trade Agreements, develop programs that support local products and businesses.

j) Explore the potential for a vendor code of conduct that sets expectations about the social and environmental responsibility of vendors with whom the University does business.
k) Produce and annually update a green guide to purchasing that highlights environmentally-friendly products or services.

3.2.9 Green Computing
The University of Alberta’s Green Computing Initiative was launched in the Fall of 2009. Under the leadership of the Vice-Provost (Information Technology), the University of Alberta encourages all computer users to apply green computing practices to ensure that our use of information technologies is sustainable.

**Goal:** Strengthen our leadership and practices in sustainable information technology.

**Strategies:**
- a) Reduce desktop printing and move to fewer and larger multi-function devices.
- b) Reduce the number of data centres to cut power costs and AC maintenance.
- c) Virtualize servers onto equipment housed in professionally operated data centres, and gather statistics on percentage of campus servers virtualized.
- d) Configure desktop and laptop computers with appropriate energy saving settings.
- e) Gather baseline statistics for percentage of Electronic Product Environmental Assessment Tool (EPEAT) Gold and Silver computers and update annually to determine progress.
- f) Develop programs to increase the daily use of green computing practices by faculty and staff.
- g) Educate administrators about the merits of ENERGY STAR® computers.
- h) Inform administrators about viable ways to extend the life of computers.
- i) Educate purchasers about appropriate computers for different types of work.
- j) Pilot test ways to enhance the energy efficiency and cost effectiveness of local area networks and data centres.

3.3 Planning, Administration & Engagement

3.3.1 Coordination & Planning
Strategic plans (e.g., Dare to Discover; Capital Plan), and physical campus plans (e.g., Long Range Development Plans; Sector Plans) guide our institution and our physical development.

The Capital Plan sets the framework for how the university is building toward the future by outlining key capital priorities, assumptions, objectives, and risks as they relate to meeting the outcomes outlined within the Comprehensive Institutional Plan. It takes a balanced approach in identifying the need for capital funding in support of identified planning, engineering, and/or construction activities.

The Long Range Development Plan (LRDP) provides the overall planning framework for that development, guiding physical growth at the five campus sites of the University of Alberta in Edmonton, as well as Augustana Campus in Camrose. The LRDP was passed by the Board of Governors on June 21, 2002, and is formally administered by the President.
Sector plans “provide guidance to future development regarding: available development sites; development guidelines, including height, massing, site coverage, setback and other related criteria that outline the historic, physical, academic, social and cultural character of the sector; pedestrian and bicycle system considerations; open space considerations; land use compatibility, adjacency and transition issues”.

The University of Alberta participates in sustainability performance reporting to help gauge our progress.

**Goal:** Demonstrate leadership by ensuring sustainability is recognized and considered in strategic planning and decision-making.

**Strategies:**

a) Update and renew the University of Alberta’s Sustainability Commitment and Guiding Principles.

b) Maintain existing sustainability committees through the Office of Sustainability (Academic Advisory Committee, Sustainability Advisory Committee, and Facilities and Operations Committees representation from students, faculty and staff), Augustana Campus (Green Campus Committee) and Campus Saint Jean (Le développement durable au Campus Saint-Jean).

c) Develop place-based sustainability plans for Augustana Campus and Campus Saint-Jean.

d) Honour the university’s existing commitment to sustainability by advancing our overall standing in the Sustainability Endowments Institute’s College Sustainability Report Card and the Association for the Advancement of Sustainability in Higher Education ‘Sustainability Tracking, Assessment & Rating System’.

e) Cross-reference, review, and update the Comprehensive Institutional Plan and other plans to ensure existing and new sustainability commitments are integrated accordingly.

f) Proceed with coupling renewal and backfill projects to provide a sustainable, best-value model that meets future operational and academic needs at a reduced capital cost.

g) Continue to review and respond to industry standards promoting strong urban design and sustainability principles and deliver base infrastructure at South Campus with sustainability at the forefront.

**3.3.2 Diversity**

The university recognizes that creating and supporting diversity in our students, faculty and staff creates a rich environment for learning and collaboration. To achieve environmental and social justice, the University of Alberta provides and supports many services that create opportunities for diverse groups to live, learn and work together.

The Aboriginal Student Services Centre provides a suite of services to support Aboriginal students and remove barriers to their success. There are a number of programs that dedicate seats to Aboriginal students and preparing future Aboriginal teachers. The Institute for Sexual Minority Studies and Services supports the needs and concerns of sexual-minority students at the University of Alberta, as well as sexual-minority youth in the larger community. The WISEST (Women in Scholarship, Engineering, Science and...
Technology) program provides a community where women can develop their interests and skills in non-traditional career opportunities related to science, engineering, and technology.

The University of Alberta recruits and retains a diverse and representative workforce and we have had an equity plan in place since 1994. We have both an Employment Equity Advisory Committee and an Employment Equity Program which offers coaching, consulting, and formal learning opportunities to explore ways to encourage more applications from qualified diverse candidates, and sessions on valuing and managing diversity in the workplace.

Creating and maintaining a teaching and research environment that is supportive and welcoming for members of designated groups is also critical to the successful implementation of employment equity on campus. Opening Doors: A Plan for Employment Equity at the University of Alberta is the university’s current plan. It was passed by General Faculties Council in March 1993 and was approved by the Board of Governors in January 1994. The plan was developed to guide implementation of employment equity on campus and as a requirement of the Federal Contractors Program (FCP), a workplace equity program of the federal government. Opening Doors has been reviewed and a new employment equity plan is currently under development.

**Goal:** Support initiatives that encourage a diversity of students, faculty and staff.

**Strategies**

As identified in the Comprehensive Institutional Plan, the university will:

a) Continue to move towards an international undergraduate enrolment target of 15 percent, and an international graduate enrolment target of 30 percent of the graduate student body.

b) Increase access and engagement of underrepresented groups, particularly Aboriginal and rural students, and expand our research and internship opportunities in rural Alberta and with underrepresented populations.

**3.3.3 Human Resources**

The University of Alberta is committed to enhancing sustainability in our human resource practices and to meeting our obligations as a reasonable and responsible employer. Employee well-being, health and safety, gender equality, employee learning and growth are some of many areas where the University of Alberta is building social sustainability on campus. Our compensation, benefits and retirement programs are excellent relative to comparable organizations. We also have an outstanding work environment and high levels of staff retention.

Our Human Resource Services group continues to provide numerous services that support inclusiveness and equity within a diverse and healthy workplace. To support the cornerstone connected to creating a transformational organization, we foster high levels of staff engagement in the university community and in its decision making processes, and have developed collegial and respectful relationships with the associations representing university faculty and staff.
**Goal:** To be recognized as an employer of choice, employing people who understand the systems in which they operate so they can contribute to sustainability goals.

**Strategies:**

- a) Promote and support HR practices that foster organizational effectiveness and sustainability.
- b) Gather feedback from faculty and staff about the quality of the work and learning environment and identify opportunities for improvement.
- c) Continue to ensure that university faculty and staff earn a sustainable compensation. Enhance professional development opportunities for faculty and staff relating to sustainability in partnership with the Office of Sustainability.
- d) Incorporate sustainability in new employee orientation program content and delivery processes.

**3.3.4 Investment**

Investment objectives for our endowments can be described as being very long-term in nature. The investment philosophies and styles employed by our external investment managers complement and support the endowment’s objectives. Given this long-term approach, our external managers take into account a corporation’s business, labour, social and environmental practices. Corporations with questionable practices in these areas are generally not seen as suitable long-term investments by our external managers.

**Goal:** Achieve a long-term rate of return that in real terms shall equal or exceed the rate of spending established for endowments, within an acceptable level of risk.

**Strategies:**

- a) Continue to retain institutional quality external investment managers who fully comply with all applicable laws and regulations, as well as the Code of Ethics and Standards of Professional Conduct established by the CFA Institute.
- b) Continue to maintain transparency with respect to all investment policies, investment performance and investment holdings.

**3.3.5 Public Engagement**

Learning, discovery and citizenship is one of the four cornerstones of the university’s vision document. Within that cornerstone, the University of Alberta is committed to inspiring students, faculty and staff alike to engage in activities that develop leadership, foster social and moral responsibility and contribute to the further development of our society and its institutions. The University of Alberta regularly gives back to the community through community service, engagement and partnerships. From students in community service-learning placements, to collaborating with other institutions on sustainability-oriented campaigns and events, the university has established a track record of performance in this area.

The University of Alberta’s accomplishments include:

- Collaborations with a range of institutions in Edmonton and Calgary in regards to outreach projects, such as Earth Hour, the Sustainability Speaker Series, and the donation and purchase of reused goods.
• Providing continuing education opportunities through the Faculty of Extension in Environmental Resources Management.
• Participating in the Community Service-Learning program which links academic coursework to community-based experiences by placing students with community groups and non-profit boards.

**Goal:** Grow opportunities for students, faculty and staff to engage on sustainability issues both on and off campus.

**Strategies:**

a) Encourage individual instructors who demonstrate sustainability commitments and implement innovative sustainability education into their respective curricula.
b) Facilitate collaboration and knowledge—sharing between university staff working in services and operations, and instructors and researchers working on sustainability.
c) Create networks and reciprocal relationships with local, provincial, national, and global communities and organizations interested in advancing sustainability.
d) Improve the system for tracking and reporting on the number of students involved in community service and the hours they have served.
e) Explore opportunities to invite convocating undergraduate students to make a voluntary graduation pledge that indicates they will give consideration to economic, social and environmental sustainability in future job and other decisions.
f) Grow and expand opportunities for staff and faculty to serve as campus sustainability advocates.
g) Develop and launch a green event and green office certification program.
h) Develop a formal awards program for recognizing the contributions of those helping the campus meet its sustainability goals.
i) Explore opportunities to host a regular farmers’ market for the community on campus.
j) Develop a Sustainability Support Network or “one-stop-shop” for learning about existing sustainability programs/activities.
4 ACKNOWLEDGMENTS

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- Facilities and Operations, Sustainable Operations Committee
- Graduate Student Association
- Office of the Dean of Students
- Office of the Provost and Vice-President (Academic)
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