
2010 - 2011

Western Sustainability *Report*



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Executive Summary & Highlights

The 2010-2011 *Western Sustainability Report* contains a representation of sustainability initiatives, projects, and curriculum from departments, offices, and organizations across campus since the last edition in 2008. This document measures Western's progress in 12 categories following a basic model set forth by the Sustainability Tracking and Rating System (STARS), a campus sustainability tool created by the Association for the Advancement of Sustainability in Higher Education. These categories are able to describe many, but not all, of the curriculum and research developments, operational strategies, and outreach efforts that contribute to the character of *Western Sustainability*. To articulate strengths and weaknesses each category is divided into five subcategories, which include an Introduction, Area Updates, Metrics, Program Strengths, and Program Suggestions. Since the last edition of the Report, Western has seen a marked integration of sustainable thought and activity into the areas of academics, operations, and outreach.

ACADEMICS

Curricular sustainability initiatives exist in every college on Western's campus and in many cases these independent programs are working toward complimentary goals.

- The Faculty Sustainability Academy, formed by faculty members, began to meet voluntarily on a quarterly basis in 2008 to organize Western's sustainability programs and develop methods for

furthering sustainability education. Approximately 30 faculty are currently and actively invested in the Academy.

- A series of surveys distributed between 2008 and 2011 indicate approximately 120 additional faculty members either teach sustainability curriculum in their classes or have professional interest in sustainability education. Survey data shows that over 900 Western classes contain some sustainability information, while 20-25 classes are "sustainability focused."
- Following the Academy's lead, President Bruce Shepard called for a Sustainability Institute Initiative (SII) in 2009. From 2009 to 2011, staff and volunteers who formed the SII worked to monitor and support academic integration, transdisciplinary studies, and independent sustainability efforts between faculty, departments, and colleges.
- Between 2009 and 2011 the SII, the Academy, and student advocates successfully launched a three-part General Education course sequence titled "Sustainability Literacy" and drafted curriculum concepts for several minors and majors in Sustainability. Due to strong, goal-oriented progress from faculty, staff, and students, the SII remains a strategic goal of Western, but did not receive funding in 2011. The Academy continues to meet on a regular basis and the Sustainability Literacy sequence is offered for winter and spring quarters of 2012.
- The College of Business and Economics has been recognized for its efforts to integrate sustainability into the MBA program by ranking 74th globally within the 2010 Beyond Grey Pinstripes list of "green" business schools from the Aspen Institute.

OPERATIONS

The physical throughput of Western includes our energy and water use, CO2 and solid waste production, transportation, green building and other aspects that contribute to Western's "footprint."

- In 2009, the Board of Trustees approved Western's *Climate Action Plan* (CAP) setting Western on the path to climate neutrality by 2050.
- In support of this and other sustainability goals, students voted in 2009 to invest into a *Green Energy Fee* at \$260,000 per year for on-campus sustainability projects, along with both permanent and student staff to coordinate these efforts. As of January 2011, six projects will have begun, including a \$167,000 solar array on the Environmental Studies building.

- In 2011, also in support of the CAP, the Office of Sustainability launched the *10x12 Program* including improved monitoring, building operational changes, and departmental behavior change campaigns forecasted to produce \$50,000 annually in energy savings.
- Also in support of the CAP and campus sustainability goals, in 2011 Facilities Management completed contract agreements with energy savings company McKinstry, to implement \$3.2 million in energy conversation retrofits. Projected conservation is a 4.5% decrease in energy use with \$227,000 to \$370,000 saved annually.
- Western has completed two *LEED-certified buildings* within this period, the architecture-award-winning Academic Instructional Center and the Miller Hall Remodel boasting Western's first vegetated roof.
- The Sierra Club recognized these combined efforts in 2011, making Western 13th in the nation for universities in reducing carbon emissions. The Environmental Protection Agency (EPA) lists Western as the 17th largest higher education purchaser of renewable energy in the U.S., due to student purchases of Renewable Energy Credits. Despite these efforts, Western's 2011 gross carbon emissions are 23% higher than targets laid out in the CAP.
- Waste reduction efforts have redoubled, including organic waste composting efforts in several campus buildings, "landfill" labeling of campus trash bins, and an end-of-the-year recycling and reuse program throughout neighborhoods around Western.
- Our Academic Custodial Services staff have been recognized three times as being among the five "*greenest*" *cleaning operations in the nation*, including #1 in 2010. The *Princeton Review* gave Western a 93 out of 99 points within its *Guide to 311 Green Schools*.

OUTREACH

Adoption of sustainable practices in energy, waste, food, and residence life has been boosted by a number of on-campus student advocates and our connection with campuses regionally.

- Students for Renewable Energy launched a campus-wide marketing campaign to encourage students to vote for the Green Energy Fee and its support of campus projects at over \$260,000 annually.
- Quarterly waste audits have been performed for the past two years by the Air and Waste Management Club with data collected being used for development of organic waste recycling options.

- In 2009, Students for Sustainable Food, in coordination with the Office of Sustainability, proposed adopting the goals of the *Real Food Challenge*, a national initiative aimed at getting campuses to 20% local food by the end of 2012. To help meet this goal, a Sustainable Food System Coordinator student position was created.
- 2011 marked the fifth year of the Resident Resource Awareness Program reaching out to 4,000 Western students through peer EcoRep educators and the "Go for the Green" conservation contest. Western has also begun to link with institutions regionally to further campus sustainability efforts.
- In 2010, Bellingham Technical College, Northwest Indian College, Whatcom Community College and Western Washington University began meeting twice quarterly to share resources, combine efforts, and look for opportunities to overcome challenges together. This Northwest Higher Education Sustainability Consortium (NWHESC) has advanced efforts to assess the carbon footprint of all member institutions through an inter-campus project, and put forth a multi-campus green jobs program proposal to the EPA.

NATIONAL TRACKING

The culmination of these efforts has been catalogued and recorded using STARS, an assessment framework created by a number of higher education institutions, including Western, to highlight leading programs in the various dimensions of campus sustainability. Our own efforts now stand at a preliminary 55-60% or "silver" rating, placing Western squarely in the middle of those campuses nationally striving for a sustainable future.

OFFICE OF SUSTAINABILITY

Throughout these initiatives, the Office of Sustainability (OS) performs the roles of advocate, program developer, manager, liaison, and progress tracker. The OS acts as a hub for campus sustainability efforts to connect people, examine ideas, and promote strategies and has played a key role in each of the 10 initiatives below:

- **President's Climate Commitment (PCC)** – The OS acts as liaison to the American College and University President's Climate Commitment, and produced the 2009 Climate Action Plan and annual Greenhouse Gas Inventories to judge progress toward climate neutrality.

- **10x12 Program** – The 10x12 Program is a partnership between campus operations and volunteer Departmental Conservation Coordinators aimed at goal of a 10% reduction in utility consumption by the end of 2012. This program includes building operations, energy conservation retrofits, and a departmental behavior change campaign.
- **Sustainable Transportation (ST) Program** – The ST Program combines the efforts of employee and student transportation to manage student bus pass distribution, offer commute trip reduction assistance, and promote safe and low-carbon strategies for students, staff and faculty.
- **Residence Resource Awareness Program (ResRAP)** – Each year 35 volunteer “EcoReps” encourage over 4,000 residents to turn off lights, take shorter showers, and sort their waste to win the “Go for the Green” conservation contest. This program, supported by University Residences, has created utility reductions including a winter quarter electricity decrease of 20% on average for three years.
- **Green Energy Fee** – The OS led development of the current program through partnership with the Associated Students, Facilities Management, and Facilities Development and Capital Budget. \$275,000 is allocated annually for the development of pilot projects to demonstrate technical and financial feasibility, and motivate the campus to adopt sustainable practices. This student fee also pays for the purchase of Renewable Energy Credits to offset the carbon emissions from Western’s electrical energy consumption.
- **Zero Waste Western** – This coordinated effort with the Associated Students Recycle Center aims to eliminate landfill waste from Western. Sorting stations, removal of stand-alone classroom trashcans, improved signage, and departmental waste assessments have greatly improved waste sorting.
- **Real Food Challenge** – This joint student/Dining Services/OS project created the goal of 20% local foods by the end of 2012 through connection with local farmers, seasonal menus, and student education. Purchases for October and November of 2011 equaled 19% local foods.
- **Campus Sustainability Planning Studio (CSPS)** – The CSPS has created over 30 proposals for Western and the surrounding community dealing with energy efficiency, waste reduction, conservation education, local foods, and more. These projects have formed the basis for many campus initiatives.
- **NWHESC** – Founded by the OS, the NWHESC brings together five regional colleges to share resources, create joint goals, and link the campuses for the common goal or regional sustainability.
- **Sustainability Tracking and Rating System (STARS)** – The OS provides research on Western sustainability metrics for this national campus sustainability performance rating system. STARS allows Western to identify both achievements as well as areas needing improvement relative to peers and other institutions across the U.S.

NEXT STEPS

The next phase of *Western Sustainability* includes creation of a comprehensive Campus Sustainability Plan, enhanced metrics and goal setting for areas beyond CO2 emissions, and increased connection with regional campuses for attainment of sustainability goals.

SUSTAINABILITY INDICATORS SUMMARY

	BASE YEAR	PERFORMANCE YEAR	DELTA	TREND*
CAMPUS				
Gross eCO ₂ Emissions (MT eCO ₂)	2005: 37,084	2011: 41,057	+10% eCO ₂ emissions	
Net eCO ₂ Emissions (MT eCO ₂)	2007: 26,977	2011: 1,885	-93% eCO ₂ emissions	
eCO ₂ Goal per WWU CAP (MT eCO ₂)	2011 Goal: 31,744	2011 Performance: 41,057	+23% eCO ₂ emissions	
eCO ₂ per FTE Student (MT eCO ₂)	2007: 3.34	2011: 2.89	-15% eCO ₂ emissions	
eCO ₂ per Building Sq. Ft. (MT eCO ₂)	2007: 13.1	2011: 11.8	-10% eCO ₂ emissions	
Electrical Use per FTE Student (kWh/FTE)	2007: 2,957	2011: 2,759	-7% kWh/FTE	
Electrical Use per Building Sq. Ft. (kWh/Sq.Ft.)	2007: 12.00	2011: 11.23	-6% kWh/FTE	
Natural Gas per FTE Student (Therms/FTE)	2007: 189.6	2011: 182.5	-4% Therms/FTE	
Natural Gas per Building Sq. Ft. (Therms/Sq.Ft.)	2007: 0.77	2011: 0.74	-4% Therms/Sq.Ft.	
All Campus Energy Use per FTE Student (MMBTU/FTE)	2007: 28.6	2011: 27.0	-4% MMBTU/FTE	
All Campus Energy Use per Building Sq. Ft. (MMBTU/Sq.Ft.)	2007: 0.116	2011: 0.110	-5% MMBTU/Sq.Ft.	
Total Sq.Ft. LEED Certified or Higher	TBD	TBD	TBD	TBD
Water Consumption (gallons/FTE)	TBD	TBD	TBD	TBD
Compostable/Recyclable Items in Waste Stream	N/A	2011: 85%		
% student reporting non-SOV taken 3 or more times per week	2008: 88%	2010: 76%	-13% non-SOV	
% employees reporting non-SOV trips taken during survey week	2007: 45%	2009: 46%	-1% non-SOV	
WWU Boardings on WTA Buses	2009: 2,965,074	2010: 2,840,809	-4% boardings	
Reams 100% Recycled Paper Purchased	TBD	TBD	TBD	TBD
10x12 Program Stats	TBD	TBD	TBD	TBD
CULTURE				
Go For the Green Electricity Use Reductions	2008: 13%	2011: 22%	TBD	TBD
Go For the Green Resident Signatures on Heat and Waste Reduction Pledges	2008: 15%	2011: 50%	TBD	TBD
CURRICULUM				
"Sustainability-Focused" Degree Offerings	N/A	2011: 6	-	-
Sustainability-Focused Classes	N/A	2011: 20	-	-
Sustainability-Related Classes	N/A	2011: 900	-	-
Total Sustainability-Related Research Grants (in % of total WWU grants)	N/A	2011: 36%	-	-

Academics

In 2009 Western President Bruce Shepard called for a Sustainability Institute Initiative and appointed Dr. George Pierce as the project's coordinator. Dr. Pierce began work with the Provost and the Vice Provost for Undergraduate Education, monitoring and supporting the academic integration of sustainability efforts from faculty, departments, and colleges. The Sustainability Institute is an initiative to form a whole institute approach to education and bring curriculum from across the campus into conversation, unifying Western as a knowledge-sharing and solution-focused academic community.

AREA UPDATES

FACULTY SUSTAINABILITY ACADEMY

The Faculty Sustainability Academy (FSA) is composed of faculty members from different colleges and disciplines who meet voluntarily to discuss strategies for furthering sustainability education on Western's campus. Early members of FSA composed and released a survey to ascertain how many members of the faculty at Western are invested in sustainability curriculum. Results from this survey indicated approximately 150 faculty either teach sustainability curriculum in their classes or have professional interest in sustainability education. FSA is an integral component of the Sustainability Institute Initiative. Students interested in sustainability also participate with, shape, and lead the discussion. During the Academy's first meeting in 2008 the faculty created a list of existing courses at Western with sustainability in the curriculum and used the information to propose three new curricular models: a General Education course sequence titled "Sustainability Literacy," a

Sustainability Minor available to students in any discipline; and an eventual Sustainability Major.

TRANSDISCIPLINARY CURRICULUM

- **Sustainability Literacy Sequence** In 2010 the Sustainability Academy launched the Sustainability Literacy Sequence using experiential curriculum taught by a rotating faculty speaker series. More than 30 faculty members from every college and 15 different disciplines are invested in the program's success.
- **Environmental and Sustainability Specialty Area Endorsement** In 2009 Washington Professional Educators Standards Board approved a Specialty Area Endorsement in Environmental and Sustainability Education (ESE). This endorsement requires K-12 Washington State teachers to incorporate sustainability education into their course curriculum. Woodring College of Education is currently developing a Western program that will lead to an ESE Endorsement.
- **Education for Sustainable Development Center (ESDC)** Woodring is designing ESDC to address global initiatives for integrating sustainability education into Pre-K through Secondary schools.
- **Teaching for a Positive Future** In 2012 Woodring's Teaching for a Positive Future pilot will investigate ways to instill sustainability education into teacher preparation models.
- **Northwest Higher Education Sustainability Consortium (NHESC)** NHESC is a cooperative to further sustainability research between Western Washington University, Whatcom Community College, Bellingham Technical College, Skagit Valley College, and the Northwest Indian College. Two projects included a joint Greenhouse Gas Inventory and a proposal for alternative energy production at St. Joseph's Hospital in Bellingham.

PENDING DEGREE TRACKS

- **Bachelor's Degree in Renewable Energy** Western will soon offer a Bachelor's degree in Renewable Energy. The program is directed by Deans Brad Smith, Arlan Norman, and Brian Burton and incorporates curriculum from Huxley College, the College of Science and Technology, and the College of Business and Economics. Western will be the one of two colleges on the west coast that offers a Renewable Energy Degree. The other is Stanford University.

RECENTLY PROPOSED

- **Bachelor's Degree in Sustainable and Environmental Business** Huxley is partnering with the College of Business and Economics to create a degree in Sustainable and Environmental Business. The degree is intended to have a holistic approach to the tenants of sustainability with a focus on business and marketing.
- **Master of Professional Studies degree in Sustainable Urban Planning and Environmental Policy** Huxley College and the College of Industrial Design are working to create a Master of Professional Studies degree in Sustainable Urban Planning and Environmental Policy.
- **Post Baccalaureate Professional Certificate in Sustainable Urban Planning** Huxley proposal to form a Post Baccalaureate Professional Certificate in Sustainable Urban Planning and a graduate degree in professional studies.

WOODRING COLLEGE OF EDUCATION

Faculty members in Woodring are pursuing sustainability research projects in the following areas:

- Dr. Bill Lay is planning to include curriculum related to sustainability in a GUR class that explores the scholarship of teaching and learning.
- Dr. Lauren McClanahan is conducting research and using place-based writing to explore the impact of climate change.
- Dr. Suzanne Krogh is exploring environmental and sustainability themes in early childhood curriculum.
- Dr. Chris Schaefer is examining the way her personal interest in organic gardening informs her work in preparing high school teachers.
- Dr. Ray Wolpov is exploring sustainability education plays in preparing teachers to foster resilience among colleagues and students.

HUXLEY COLLEGE OF THE ENVIRONMENT

- **Paddle for Sustainability** Marc Van Grinsven's MEd project, *Paddle for Sustainability*, is used by Western and other institutions for community outreach, sustainability education, and curriculum development.
- **The Polaris Project** Polaris is an international effort funded by the NSF engaged in arctic research and student training to gather and distribute information about the Arctic and global climate change.

- **Campus Sustainability Planning Studio** Western students work directly with institutional stakeholders to find sustainable solutions for energy conservation needs, waste reduction, sustainable transportation, local foods production and consumption, purchasing, and the built environment.
- **Urban Transitions Studio (UTS)** UTS is a partnership between Western, the City of Bellingham, and Sustainable Connections. In 2010, UTS students participated in service-learning curriculum to develop new urban planning concepts for the City.
- **The Resilience Institute** *The Resilience Institute* is focusing on four research projects: ResilUS, Western's Institute for Global and Community Resilience, Small Farms Resilience, and Guatemala Urban Disaster Risk Reduction.
- **International Sustainable Development Studies Planning Program** Dr. Nicholas Zaferatos oversees the award winning International Sustainable Development Studies Planning Program conducted on the Greek islands Kefalonia (2005-2009) and Ithaca (2010-2011), and on the island of Haiti in 2010-2011.

COLLEGE OF SCIENCES AND TECHNOLOGY

- **The Patrick Group (PG)** PG is organized in Western's Chemistry Department and conducts research in solar energy, thin films, carbon-based electronics, and liquid crystals.
- **Vehicle Research Institute (VRI)** VRI and the Western Hybrid Team focus on the design and engineering of environmentally friendly, energy-efficient vehicles. Current research includes a hybrid bus model for the Western student shuttle.

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

- **Sustaining Words** Between 2009-2011 English 101 curriculum was based on the text, *Sustaining Words: Readings in Consumption and Complexity, Responsibility and Renewal*.

CENTER FOR CANADIAN-AMERICAN STUDIES

- **The Border Policy Research Institute (BPRI)** BPRI is a multi-disciplinary research institute that focuses on research for the purpose of informing policy-makers on matters related to the Canada/U.S. border. BPRI works closely with similar research organizations on campus and collaborates with many public and private entities within the Pacific Northwest.

WESTERN'S STUDY ABROAD PROGRAM

- **Collaborative International Service-Learning in Kenya (CISL)**
CISL focuses on collaboration with local partners to generate sustainable income projects and research toward resolving negative impacts to local cultural from global modernization.
- **Sustainable Ithaca** A course in Mediterranean Sustainable Development that explores architecture and culture by performing fieldwork in the coastal village Kioni in Ithaca, Greece.
- **Seminar in Peru** Studies existing sustainable tourism projects in Peru, meets with non-governmental eco-tourism organizations and builds experience in tourism planning and resource management.
- **Rainforest Immersion and Conservation Action (RICA)** The RICA program focuses on sustainability through international leadership in ecological conservation, commitment to the environment, and high diversity forests.

METRICS

- 6 degrees with a sustainability focus include: BS Environmental Sciences, BA Environmental Studies, BA Geography and Environmental Resource Management, BA Environmental Economics, BA Environmental Education, and a Minor in Planning and Sustainable Design.
- Between 2009-2010 approximately 15 faculty-led summer abroad programs integrated components of sustainability education and curriculum.
- A 2011 survey completed by SII showed roughly 900 courses at Western are *related* to sustainability education. An additional 20 to 25 courses are *focused* on sustainability education.
- Currently proposed sustainability-focused degrees include 2 bachelor's degrees, 2 master's degrees, and 1 post-baccalaureate certificate in sustainability.
- 36% of the total research grants received by Western since 2008 are funding sustainability related scholarships for faculty, students, and staff.
- In a series of three surveys administered by the SII between 2008 and 2010, approximately 150 faculty members representing every college on campus indicated an interest in sustainability.

PROGRAM STRENGTHS

- Active, diverse, consistent faculty support and voluntary initiative

- Student engagement, participation, and demand for sustainability education
- Community networking and support through partnerships in business and educational institutions throughout Whatcom County

PROGRAM SUGGESTIONS

- Centralize coordination and staff for integration of sustainability into the Western academic efforts
- Increase administrative support for faculty and students who desire to further formal sustainability education
- Dissolve administrative barriers that prevent long-term transdisciplinary critical inquiry and collaboration

Climate and Energy

In 2004 the College of Business and Economics took an active leadership role in developing the Green Power initiative that allows Western to purchase green energy using Renewable Energy Credits (RECs). Since 2005, Western has balanced 100 percent of its electricity usage through the purchase of RECs, first from the Endeavor Wind Farm in Iowa and currently through the EarthEra Renewable Energy Trust. In 2007 former Western President Karen Morse signed the *American College and University President's Climate Commitment*. The three goals for compliance with the President's Climate Commitment include a carbon emissions inventory, options assessments for reducing greenhouse gas emissions, and developing a management plan. In 2010, the Office of Sustainability (OS), in cooperation with Facilities Management (FM), and the Board of Trustees completed a Climate Action Plan that outlines a strategy for Western to become climate neutral by 2050. At present, each of the energy saving strategies at Western serve directly or indirectly to support the President's Climate Commitment and the *Climate Action Plan*. Some of these projects are large scale, such as the ESCO proposals, and some are smaller scale, such as the 10x12 Program sponsored by the OS.

AREA UPDATES

Green Fee Using funds from the Green Fee, FM will be installing three new technologies anticipated to conserve energy costs. These projects include:

- Solar Panels on 5th floor roof of the Environmental Studies building
 - Approximate allocated funding amount: \$167,500
 - Seattle-based A&R Solar's bid to provide solar panels, inverter, electrical interconnections and solar panel framing for installation: base-bid \$81,200 dollars; Alt 1 \$11,800; total \$93,000
 - Additional costs include structural engineering, equipment rental, etc. This bid does not reflect total cost of project
 - Approximate utility savings: \$4,430 per year
- Hand Dryers
 - Preliminary estimate for units, labor, fees, and permits: \$9,700 - \$12,000. These numbers do not include educational components.
- LED Retrofits
 - Preliminary estimate for units, labor, and fees: \$50,000 - \$59,000. These numbers do not include educational components.
 - Approximate utility savings: \$1,200 per year

10x12 Program The 10x12 Program is an initiative to reduce Western's utility use 10% by 2012. The program focuses on operational changes from the university and behavioral changes from the campus community in four areas: Electricity, Natural Gas, Water, and Zero Waste. Parks Hall, Arntzen Hall, the Biology Building, and the Chemistry Building serve as pilot areas for this program.

OPERATIONAL ASPECTS

ZERO WASTE

- Western spends more than \$375,000 per year for landfill waste disposal
- Waste audits show that 85% of landfill material could be recycled or composted
- Landfill waste could be reduced to 15% of current levels

ENERGY SAVINGS COMPANY

- By installing ESCO-proposed sustainable technologies Western will save a little over \$244,000 annually in utility costs. Sustainable Technologies include:
 - Energy efficient lighting
 - Water conservation technologies
 - New ceiling and wall insulation
- **68-degree Set Point** Setting building temperatures at 68 degrees is expected to reduce natural gas and electricity costs by \$42,000 dollars annually.

BEHAVIORAL ASPECTS

- **Department Conservation Coordinators (DCC)**
 - A commitment to conservation concepts and actions, reducing utilities costs, and working toward zero waste in their departments
 - Plans 10x12 Program training and networking agendas.
- **10x12 Program Toolkit** A series of tools for DCCs to employ for reducing utility costs.
 - **5 Things in 5 Minutes** A poster distributed by DCC reminding campus of five steps to reduce power use.
 - **“Power Down”** Department Conservation coordinators send “Power Down for Break” reminders to reduce unnecessary energy use.
- **Western Unplugged** and the **Western Unplugged Pledge**
 - A commitment from individuals in the student body to turn off electronic components that are not in use.
- **Go for the Green Challenge**
 - Students reduced electricity consumption in university residences by an average 21.4% per month in 2010.

METRICS

- Puget Sound Energy’s Green Power program annually provides Western with 33 million kilowatt hours of domestically-produced, alternative energy via RECs. This makes Western the nation’s 4th largest buyer of green energy among academic institutions in the nation.

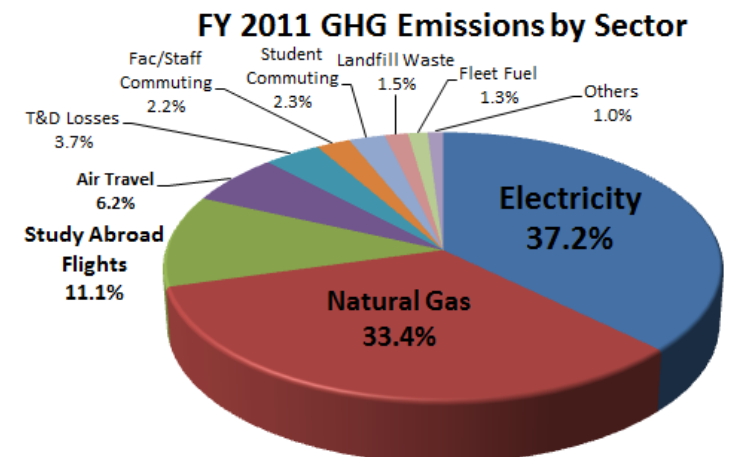
- Power Down for Break is based on the following data: One PC and monitor operated continuously accumulates up to 1,000 Kilowatt hours energy use, produces 1,230 lbs of CO₂, and costs Western just under \$100 per year, per computer, based on local electricity rates.
- **Natural Gas** Western burns natural gas in the central steam plant to heat campus buildings. This process accounts for about 36% of the total GHG emissions.

PROGRAM STRENGTHS

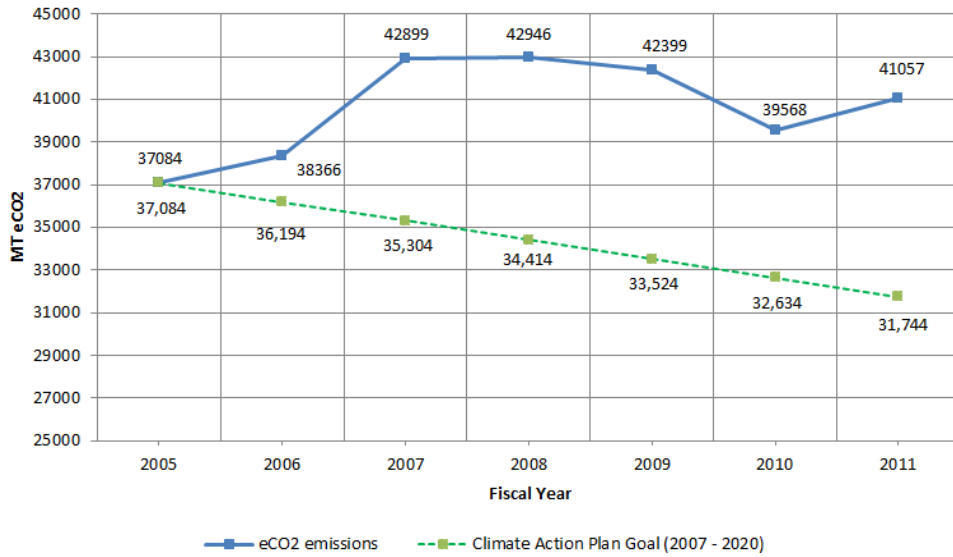
- Western has clear goals set for energy and CO₂ emissions reduction via the President’s Climate Commitment and the Climate Action Plan.
- The Office of Sustainability and Facilities Management dedicate scarce resources to work toward these goals.
- Financial support of efforts by students, via the Green Fee – a way to pilot technologies on a small scale.
- Community efforts help bolster efforts – the Community Energy Challenge.

PROGRAM SUGGESTIONS

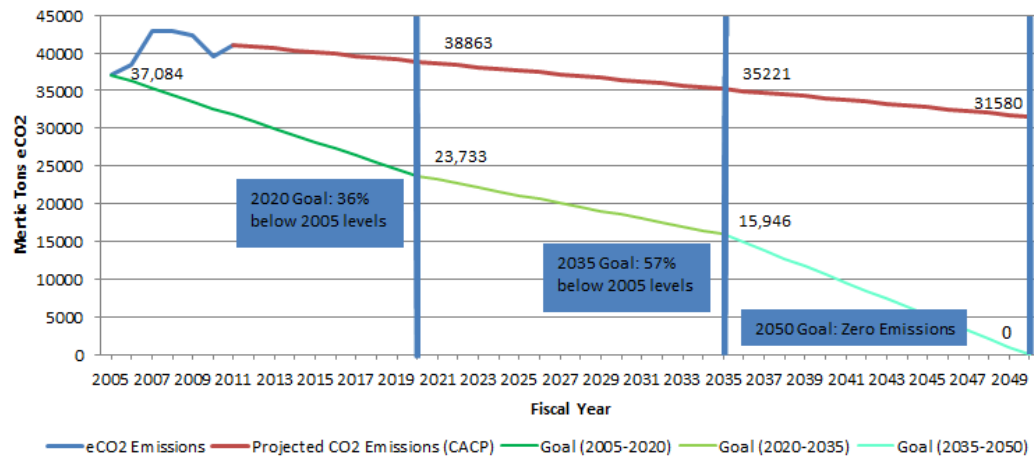
- Create a visible mechanism to roll energy efficiency savings back into additional projects
- Match energy efficiency demand with necessary labor
- No a campus-wide energy policy for building set points, operating hours, computer settings, and other areas



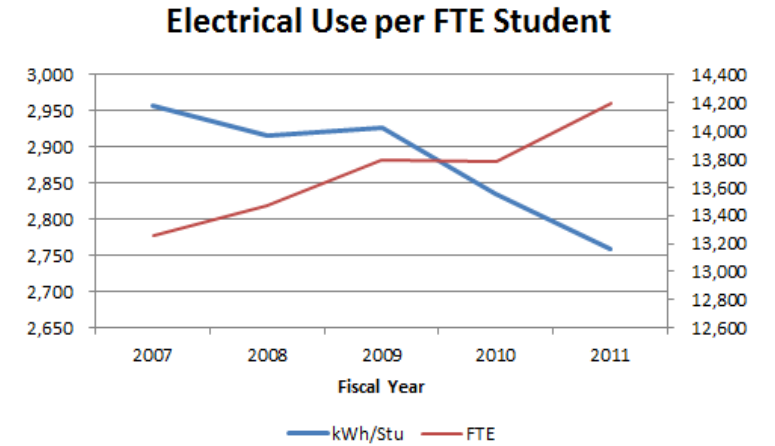
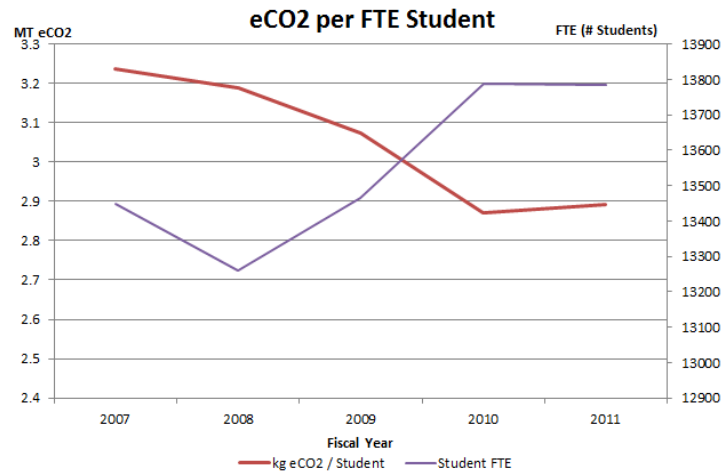
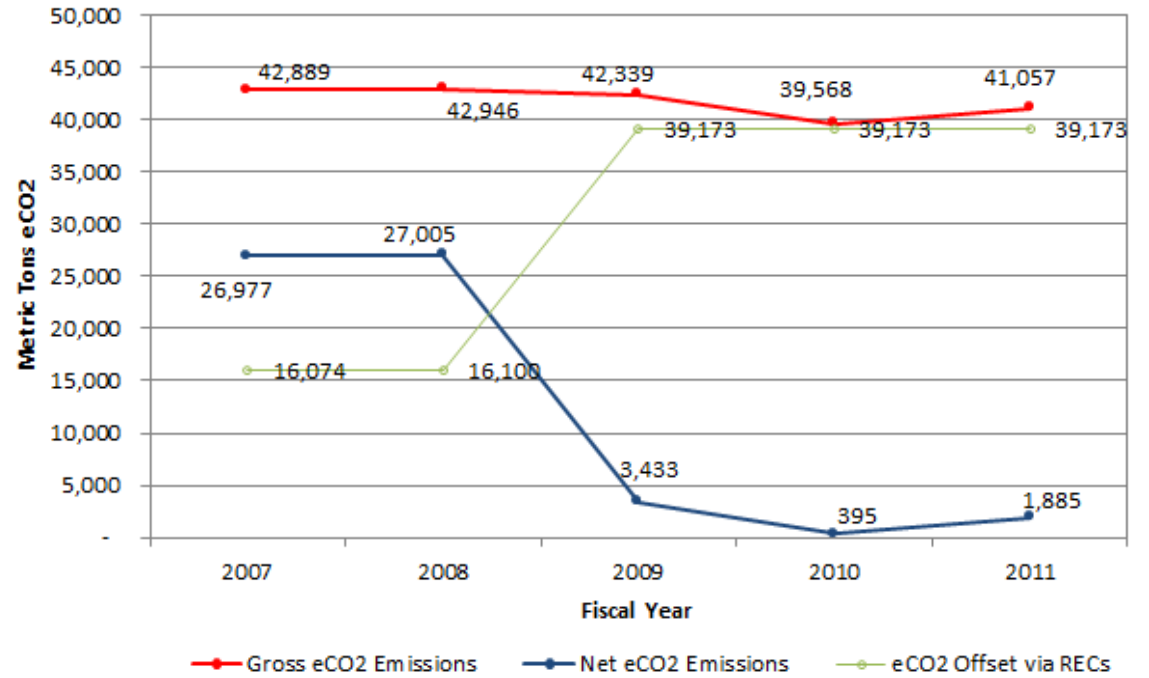
Gross University eCO2 Emissions (2005-2011)



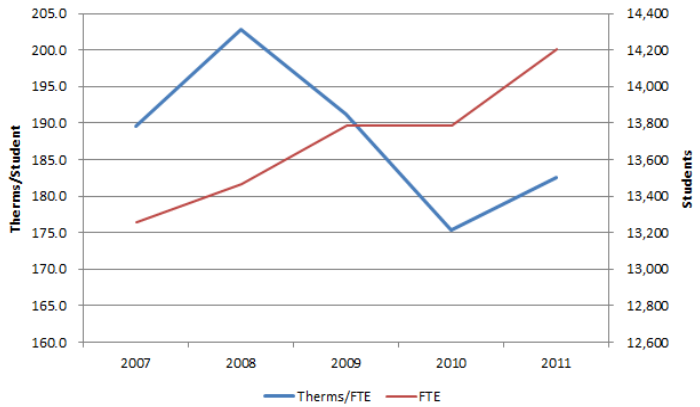
Projected eCO2 Emissions & CAP Goals (2005 - 2050)



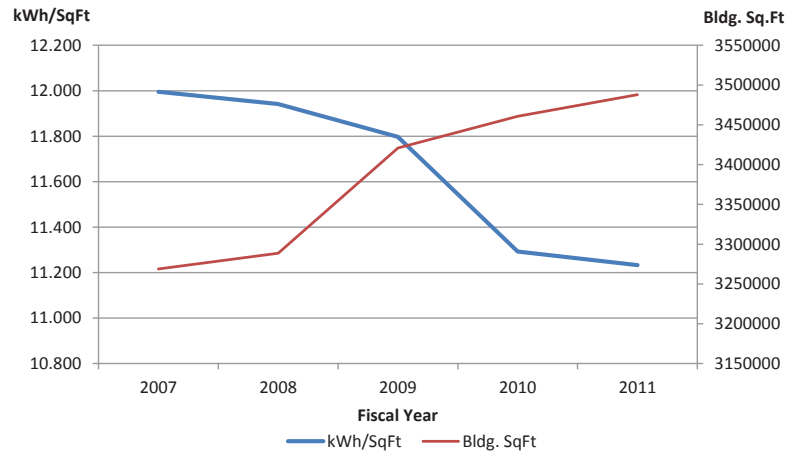
Net eCO2 Emissions



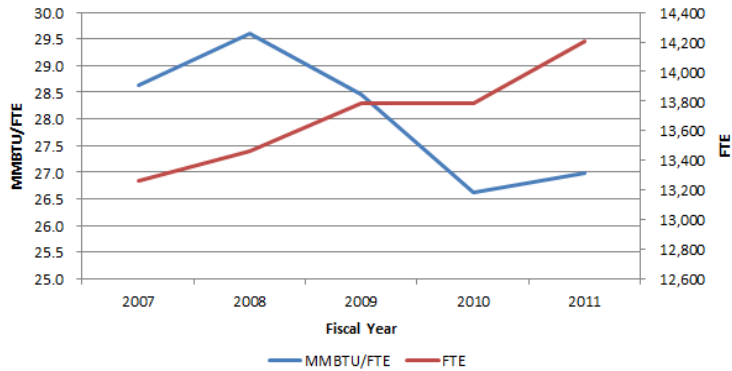
Natural Gas Use per FTE Student



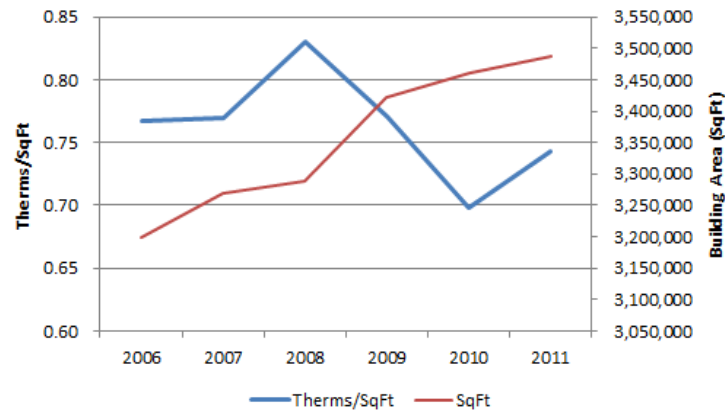
Electrical Use per Building Sq.Ft.



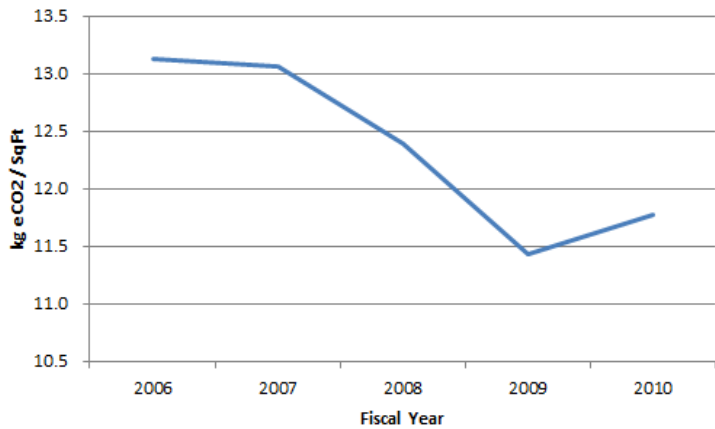
All Campus Energy Use per FTE Student



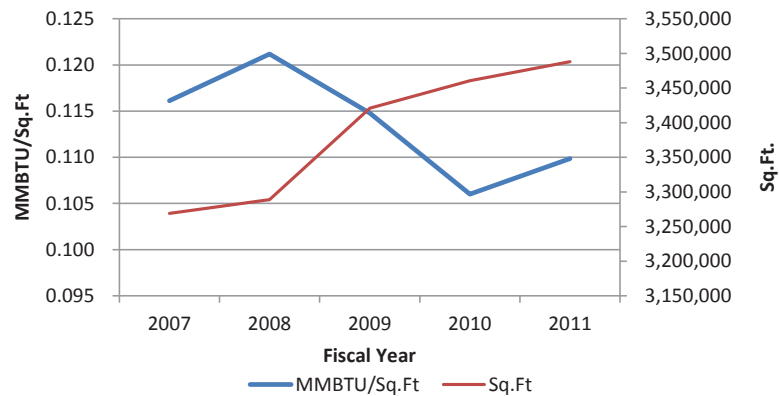
Natural Gas Use per Building Sq.Ft.



eCO2 per Building Sq.Ft.



All Campus Energy per Building Sq.Ft.



Built Environments and Grounds

In 2005 Washington State passed 39.35D RCW requiring all state-funded buildings and renovation projects to be completed according to USGBC standards and achieve LEED Silver Certification. Western works within the guidelines provided by the Green Buildings Council and LEED standards. Western became a member of USGBC, attends green building technology seminars and design workshops, and participates in LEED training classes. Following LEED and USGBC guidelines, Western, FM, the OS and auxiliaries examine the built environment according to site development standards, water savings, energy efficiency, material-type selections, and the indoor environmental quality.

Western's current staffing level does not allow for high-level grounds maintenance. Gardening staff choose hardy plants with good drought tolerance over plants that will require more maintenance. Native plants are installed where possible; landscaping designs usually include a combination of native, native varieties, and hardy exotics. Tree preservation is a priority at Western. Gardening department staff makes a strong effort to replace each tree that is lost from disease, damage, or removal due to a construction project.

AREA UPDATES

- **The Academic Instructional Center**, completed in 2008, is a LEED certified facility equipped with natural ventilation, cloud ceilings, dual flush toilets, and radiant panels.

- **The Buchanan Towers Addition (BTA)** The BTA uses a minimum of 35% electricity provided by renewable sources, 90% of lighting is natural, 20% construction materials are recycled; 100% of construction materials are "regional," defined as within 500 miles of the project site; a minimum of 50% of the wood is certified by the Forest Stewardship Council; water efficient landscaping, native species plantings, and light pollution reduction are incorporated into the design.
- **Miller Hall Renovation** Completed in 2011, the project is a \$51.5 million dollar investment renovating 134,000 sq. ft. All utilities systems in the building have been upgraded with higher energy efficient technology, recycled or recyclable products, and products purchased locally. Project is aiming for LEED Gold.
- **Vegetated Roof Project** Western's first "green roof " is part of the Miller Hall renovation. A green roof requires very little maintenance and provides savings on heating and cooling costs, better sound insulation, reduced stormwater runoff, and is projected to achieve a greater lifespan than traditional roofing materials.
- **Urban Transitions Studio** is a collaborative partnership with Bellingham's Office of Planning and Community Development and Sustainable Connections. Beginning in 2010, the Transitions Studio participated in service learning curriculum that partnered with community and institutional groups. Some of these projects include a concept proposal for revitalizing downtown Bellingham's retail core, a proposal for transitioning single-use retail zones into New Urbanism neighborhoods, and a concept for infill and alleyway redevelopment along Cornwall Avenue.

METRICS

- AIC West, the Student Recreation Center, and Miller Hall were built in accordance to LEED Certification totaling 278,414 sq. feet.
 - o BTA LEED Certified square footage is under investigation
- Members from FM's staff have attended LEED training and certification workshops. At present four employees are LEED certified designers.

PROGRAM STRENGTHS

- Washington State law 39.35D RCW requires all state-funded buildings and renovation projects over 5000 sq. ft. to be completed according USGBC standards and achieve LEED Silver Certification.

- Campus Sustainability Planning Studio provides a forum for students to make informed decisions about how ecological constraints define sustainability and how human choices shape the context in which sustainable projects may be used effectively.

PROGRAM SUGGESTIONS

- Open LEED education to all design staff
- LEED Silver is now seen as easily achievable throughout the green building industry—Western has an opportunity to draft campus policy requiring LEED Gold or higher for all new campus building construction and renovations.
- Consider “Living Building” design guidelines for the future waterfront development.
- Install continuous commissioning technology to help reduce energy consumption and carbon emissions, and design more applicable management strategies.
- Pursue LEED Existing Building (LEED EB) to address operations, maintenance and systems retrofits.
- Secure funding for a PM Coordinator to maintain new high-efficiency technology and ensure that it will continue to perform at designed levels and generate total projected savings.

Cleaning Program

Western's Green Cleaning program is maintained by Western's Academic Custodial Services (ACS). In 2003 ACS instituted team cleaning into the standard operating procedure, a transition that has allowed the program to use resources more efficiently and effectively in every building on campus. Custodial staff organizes and completes training programs on an annual basis using leadership and management guidelines from the Cleaning Management Institute, a national organization. ACS prioritizes sustainable technology for cleaning practices, including waste reduction, water conservation, and maintaining a hygienic campus setting that does not compromise environmental health.

AREA UPDATES

- **National Award** In 2009 ACS received the *Grand Award in Green Cleaning for Higher Education*, a national recognition organized by the American School & University's Green Cleaning Award program.
 - The categories include one *Grand Award*, three *Honorable Mention* awards, and one *Best New Program*.
 - In 2008 and 2011 Western earned an *Honorable Mention*
- **Ionized Water** Ionized water and dry vapor steam cleaning technology is used for all aspects of the cleaning operation, including restroom sanitization, hard-surfaces, upholstery, and carpet.
- **Recycled Paper Towels** As of 2010, the custodial staff uses 100% recycled-content roll-towels and toilet paper.

- **Automated Fixtures** Automatic paper towel dispensers and water faucets are replacing manual fixtures in some restrooms.
 - No-touch facilities conserve water and minimize opportunities to spread disease.
- **Paper Towel Alternatives** With support from the Green Energy Fee, ACS is transitioning from paper towel dispensers to high-speed electric hand dryers in some restrooms.
- **Recycling Program** ACS is developing a campus-wide recycling program that will use mini-cans, rather than large barrels or canisters, to collect waste.
 - This process is an attempt to better monitor individual waste streams.

METRICS

- ACS eliminated 75 hazardous and residue producing cleaning agents from the custodial inventory.
- The total water-use and product consumption was reduced in facilities where motion-activated paper towel dispensers and foaming hand-soap dispensers have been installed. There is no technology in place to accurately measure water use per building or facility.
- Western spent \$30,436 on cleaning chemicals that are green seal certified or ionized water.

PROGRAM STRENGTHS

- "Zero impact" policy regarding the indoor environmental quality for both custodian and client
- "Leave No Residues Behind" policy regarding chemical applications
- Using only non-chemical cleaning technology whenever feasible

PROGRAM SUGGESTIONS

- Adopt ACS cleaning standards and procedures in all custodial areas on campus.
- Provide technology to accurately measure water use per building and per facility.
- Provide funding for a mini-can pilot program to reduce waste.
- Eliminate the use of garbage can liners where possible.

Student Life

Students at Western are key supporters for sustainability efforts at Western. Their efforts can be seen most easily in the number of sustainability-focused student clubs and in the residence halls. Student clubs have worked toward a number of goals including the Green Energy Fee, local foods, and alternatives to bottled water. Sustainability programs in Western's residence halls are organized under the Resident Resource Awareness Program (ResRAP) and led by the ResRAP Coordinator and Eco-Reps. Eco-Reps are elected by their peers to work as sustainability advocates in residence halls, attend peer-to-peer sustainability education trainings, and broaden their knowledge via student club involvement and student government programs. Every winter quarter, the Go for the Green contest uses hall-to-hall competition to reduce electricity, natural gas, water, and landfill waste. Additionally, the ResRAP works to increase composting facilities on campus.

AREA UPDATES

STUDENT CLUBS

Current Associated Students clubs that focus on sustainability include:

- **Air and Waste Management Association** Conducts quarterly waste audits in campus buildings
- **Students for Renewable Energy** Focuses on promoting energy efficiency and renewable energy production on campus
- **Green Builders** Promotes low impact development and cutting-edge sustainable building techniques

- **Students for Urban Planning and Policy, Learning, Environment, Action, Discovery (LEAD)** Hosts ecological restoration work parties at sites around Bellingham
- **Students For Sustainable Water** Promotes alternatives to bottled water and water efficiency
- **Surf Rider** Advocates for ocean pollution prevention and host beach clean-ups
- **Western Washington Student Food Cooperative** Looks to connect students with local foods and cooking
- **Engineers Without Borders** EWB-USA supports community-driven development programs worldwide by collaborating with local partners to design and implement sustainable engineering projects
- **Contributors of *Read The Dirt*** Prints a regular student publication emphasizing the benefits of local foods and connection with local farmers

RESIDENCE HALLS

- **GFTG *Go for the Green*** Residence Hall Energy Program entered its fifth year on campus, building on four years of demonstrated success.
- **Student Pledge** All residence halls have the option to participate in a Landfill Waste Reduction Pledge to reduce landfill waste. The pledge is part of the GFTG energy conservation program.
- **Resident Composting** Birnam Wood has entered their third year of the composting pilot program. Residential composting will be implemented in halls across campus pending the program's success.
- **Shower Timers** ResRAP and University Residence initiated the Shower Timer water conservation pilot program in Higginson Hall. Initial findings from May 2011 suggest 10,098 gallons of water were saved, as compared to 2010 data.

METRICS

- **Go for the Green Results** The 2010-2011 *Go for the Green Challenge* achieved:
 - o 21.3% reduction in electricity use
 - o \$21,000 saved
 - o 250,000 pounds of CO2 eliminated

o 30% reduction in overall landfill waste

- **EcoRep Growth** During the first year of the ResRAP program, six volunteer EcoReps were in the program; now in year five over 30 students are present

PROGRAM STRENGTHS

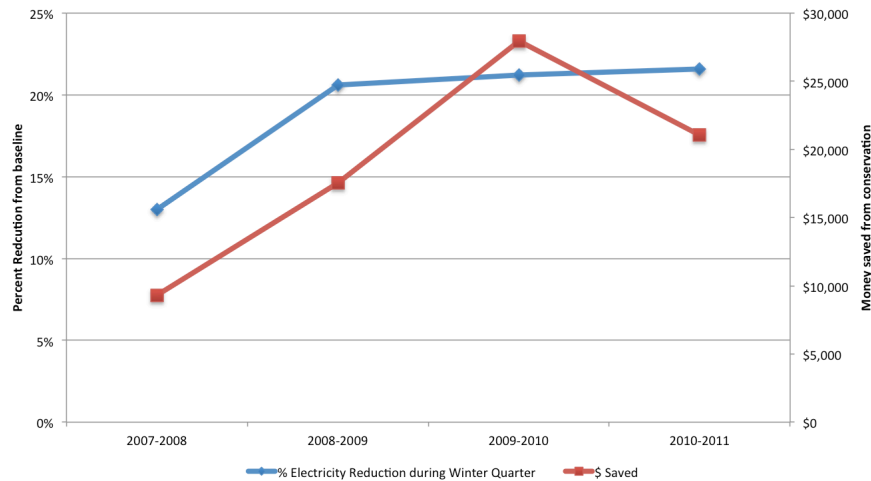
- High student interest in peer-to-peer education in Western residence halls

- Support from University Residences staff for ResRAP program
- Accurate, easy to use, up-to-date website

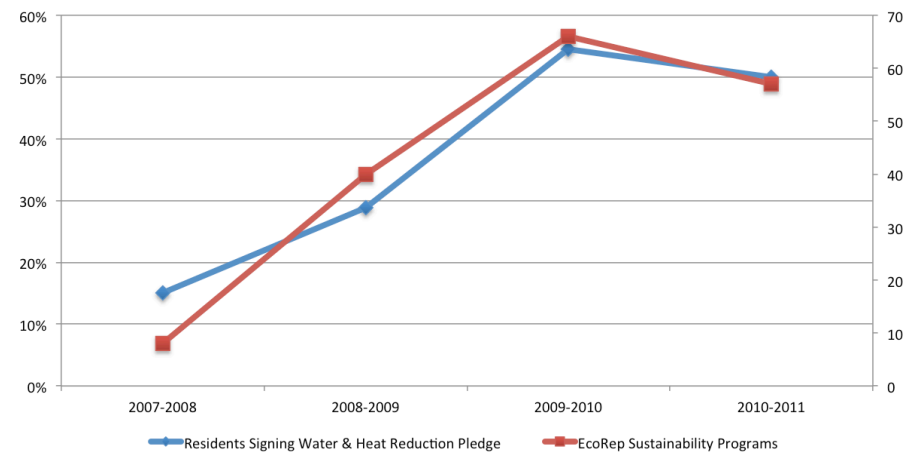
PROGRAM SUGGESTIONS

- Create real-time monitoring capability for residence halls
- Provide organic waste options for all residence halls
- Involve academic credit for EcoRep volunteers

Electricity Reduction and Savings in Residence Halls During Go For the Green, 2007-2011



Resident Pledge Signatures and EcoRep Programs 2007-2011



Purchasing

Western's Purchasing Department contracts with local businesses and customizes their policy so that it caters to industry in Bellingham, Whatcom County, and the greater northwest region. Western is taking steps toward improving campus sustainability in purchasing methods, particularly in larger expenditures and traditionally unsustainable products such as virgin paper stock, chemical-based cleaning products, and electronics. At present, the Purchasing Department is working toward formalizing internal policies that result in sustainable purchases and reduce overall products consumption. Western receives direction for its purchasing policy from the Washington State General Administration Department, Chapter 43.19a RCW, a law that defines sustainable guidelines. These guidelines define the minimum requirements, leaving room for institutions to "personalize" strategies that are unique to campus culture or, if an institution chooses to do so, legislate more rigorous sustainability policies.

AREA UPDATES

- **Print Quotas** In 2011 Western removed the standard per/student printer paper quota and initiated a charge per/sheet for all public printers. This may result in fewer pages printed. The basic charge is 4¢ per page for standard black and white copies.

METRICS

- Western purchases 900 to 1,000 new computers annually. All new computers are Gold certified by Electronic Product Environmental Assessment Tool, an environmental rating that helps identify energy efficient electronics.

- Western's *Print and Copy Services* use 100% recycled paper
- Western purchases roughly 4,000 cases of paper annually at 5,000 sheets per case and uses approximately 20 million sheets of paper each academic year.
 - o 40% recycled content paper = 17395 reams/1739.5 cases or approximately 78,277 lbs
 - o 30% recycled content paper= 1420 reams/142 cases or approximately 2,568 lbs
 - o 100% recycled content paper= 7486 reams/748.6 cases or approximately 29,994 lbs
 - o Total recycled content paper = 110,789 lbs
- Dollars spent on recycled paper by % content:
 - o \$66,095 spent on 30/40% recycled paper
 - o \$39,077 spent on 100% recycled paper.
 - o Total paper expenditure = \$105,172

PROGRAM STRENGTHS

- Central Stores' commitment to carry recycled content products and use only vegetable-based inks
- Ability to customize guidelines to institutional desires
- Institutional per/sheet printing fee

PROGRAM SUGGESTIONS

- Create purchasing policy for local products preference
- Set targets for recycled content purchases and printing levels

Transportation

Western's sustainable transportation is a collaborative effort between a number of divisions and departments on campus and in Whatcom County. These include Western organizations: the Office of Sustainable Transportation, Western Student Transportation, and the Department of Public Safety; local organizations: the City of Bellingham, the Whatcom Transportation Authority, Skagit Transit; and regional organization, the Bellair Airporter. Together these groups pursue alternative transportation opportunities and look for ways to create incentives for sustainable modes of transportation on campus.

Sustainable Transportation has three main goals: Service, Accountability, and Sustainability. The object of these goals is to provide information, assistance and outreach services to the Western community such as walking and bicycling routes, and transit and carpooling options. To reach these objectives, Transportation focuses on: 1) the Commute Trip Reduction Act requirements; 2) meeting fiscal and procedural accountability requirements for the Employee Transportation Program and the Student Transportation Fee; and 3) evaluating transportation impacts and solutions. The projected outcome for each objective is to improve services and infrastructure.

Western's sustainable transportation support staff consists of three classified employees, one student coordinator, and temporary student staff hired for specific projects.

AREA UPDATES

- **Student Bus Pass** Western successfully completed a three-year project to integrate the Western Card and the Student Bus Pass into one card, eliminating the need to purchase, process,

and dispose of large volumes of plastics and the attending engineering, IT services, and production costs.

- **Extended Bus Routes** Collaboration between Western and Whatcom Transportation Authority (WTA) achieved extended bus routes and schedules for the Western Night Shuttle, increased service to South Campus, an expanded service area in north Bellingham, the York Neighborhood, and two additional buses serving the Greyhound/Amtrak terminal and the west end of Fairhaven.
- **Bike Rack Utilization Report** Western's Bike Rack Utilization Report was completed in spring quarter 2010.

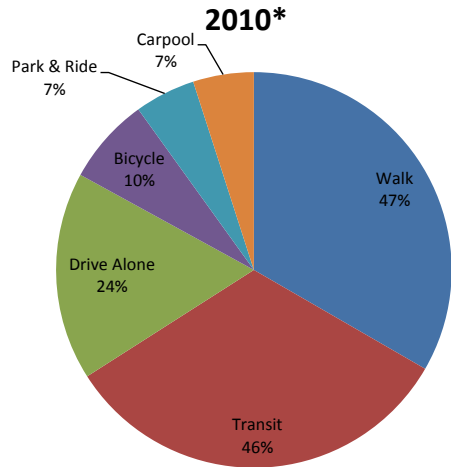
METRICS

- The 2012 Bike Rack Utilization Report describes bike rack types, placement, and use between 2004 and 2010. Overall, the number of bike parking spaces in the academic core of campus has increased from 812 to 944 since 2004.
- The average vehicle miles traveled for Western employees is 5.4 miles in 2009, down from 5.8 miles in 2007.
- Of students who primarily drive to campus, 31% live within two miles to campus.
- Western subsidizes the cost of employee bus passes as an incentive for using public transportation. About 500 employees purchase and use the bus pass annually at 1/3 of the actual cost. Western pays the remainder to WTA.

PROGRAM STRENGTHS

- Regular funding provided by the Alternative Transportation Fee
- Dedicated, enthusiastic, well-trained classified and student transportation staff
- Subsidized WTA bus pass for Western and Dining Services employees
- Excellent sustainable transportation website: informative, up to date, with trip plans for common destinations, and student shuttle schedule readily downloadable
- Customized trip planning and assistance available at the Sustainable Transportation Office, M-F
- Collaborative support from community trip reduction and safe biking/walking programs such as Smart Trips
- Collaborative support between Western divisions and programs: ID Card Office; Wellness and Prevention; Associated Students; Public Safety; Technology

Student Transportation Mode Share

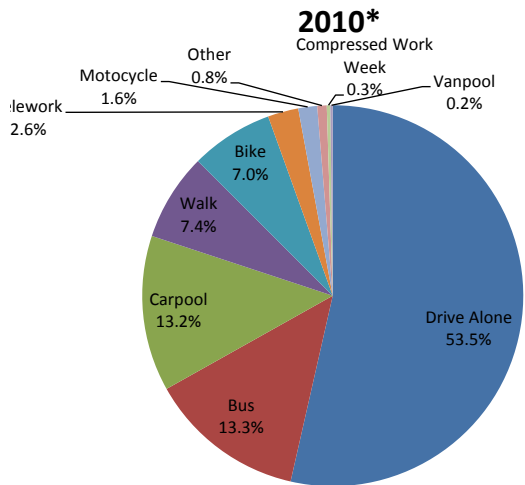


*percentage of respondents using mode 3 or more times per week

PROGRAM SUGGESTIONS

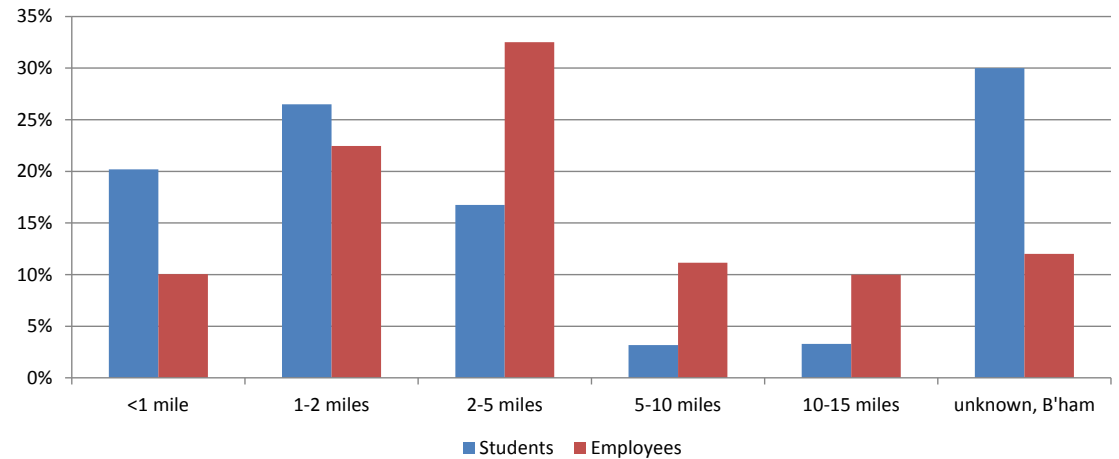
- Work with the Public Safety Department to create standards for safe on-campus bicycling to establish parameters to protect pedestrians and cyclists so that neither mode is compromised during travel routes.
- Create incentives for commuters who use alternative transportation, such as fees reductions or bonuses
- Increase covered bike parking areas
- Western continues to need more bicycle parking, particularly in destination areas, such as the Viking Union.
- Consider covered walkways around and between buildings to increase comfort for pedestrians and reduce need for vehicle trips between buildings on campus.
- Create a carshare program, making short-term (hourly) car rental available for students, and employees, thus greatly reducing the need for personal cars brought to campus.
- Provide education regarding walking distance/time to campus from near-by residences, to counter issue of bus congestion and delayed pick-up at stops directly adjacent to the campus.

Employee Transportation Mode Share



*percent of trips during survey week

Student and Employee Proximity to Campus



EMPLOYEE TRANSPORTATION MODE SHARE 2009-1997

% OF TRIPS TAKEN DURING SURVEY WEEK

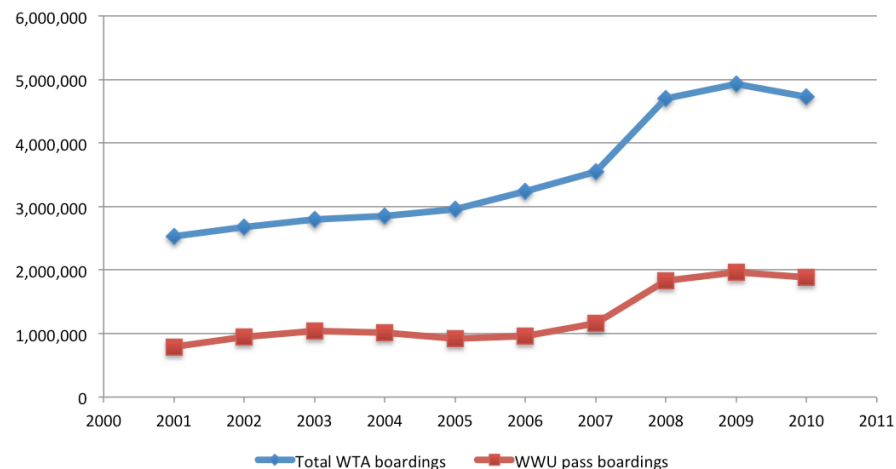
MODE	2009	2007	2005	2003	2001	1999	1997
Drive Alone	54%	55%	61%	58%	60%	61%	64%
Bus	13%	12%	13%	12%	14%	14%	16%
Carpool	13%	12%	9%	11%	9%	9%	7%
Walk	7%	0%	0%	0%	1%	1%	1%
Bike	7%	*	*	*	*	*	*
Telework	3%	*	*	*	*	*	*
Motorcycle 1-person	2%	2%	1%	1%	1%	1%	1%
Other	1%	8%	7%	7%	8%	7%	6%
CWW	0%	5%	5%	5%	5%	4%	2%
Vanpool	0%	0%	0%	1%	0%	*	*
Motorcycle 2-person	0%	2%	2%	2%	2%	2%	2%
TOTAL	100%	96%	98%	97%	100%	99%	99%

STUDENT MODE SHARE 2010-2003

% RESPONDENTS REPORTING USING MODE 3 OR MORE TIMES PER WEEK

MODE	2010	2008	2003
Walk	47%	38%	42%
Transit	46%	44%	40%
Drive Alone	24%	12%	17%
Bicycle	10%	9%	8%
Park & Ride	7%	5%	5%
Carpool	7%	4%	3%
TOTAL	141%	112%	115%

**WTA & WWU Boardings
2001-2010**



Waste

Western disposes or recycles products using different local and regional services. The Associated Students Recycle Center (RC) has been successful in diverting approximately 850,000 pounds of recyclable material from landfills every year. As of 2010 Western's Recycle Center operates with one full-time coordinator and approximately 13 student employees. The RC, in cooperation with Central Stores and Facilities Management (FM), provides means for responsible disposal for batteries, ink cartridges, and non-recyclable packaging materials. Under the supervision of FM, Western's contractors adhere to Western's recycling and waste management policies and re-use standards. By continuing to improve the sorting process for recyclable and compostable material in each building and on project sites, and reducing the overall volume of landfill trash, Western is able to lower waste disposal costs and reduce the institution's carbon footprint. Programs such as *Zero Waste Western* and *Go for the Green* are increasing education, awareness, and incentives to live sustainably and are contributing toward Western's forward progress in waste elimination and budget savings.

AREA UPDATES

- **Zero Waste Western** Zero Waste is a campus wide effort to eliminate recyclable, compostable, and landfill waste from the university's waste-stream. The Office of Sustainability and FM are committed to reaching this goal through operational changes and peer education.
- **Waste Audits** The AS Recycle Center, the *Air and Waste Management Club*, and the Office of Sustainability (OS), are

working together to complete quarterly waste audits in buildings across campus.

- **Dumpster Monitoring** OS staff monitors campus dumpster levels and dumpster content on a weekly basis. Waste audits and dumpster level data provide Western with information to improve the existing the recycling system and hone education strategies. Success is measured by overall reductions in recyclables processing and landfill waste by weight.
- **Go for the Green** *Go for the Green* is part of the *Total Waste Reduction Challenge*, a friendly competition between residence halls conserve resources.
- **Paper Towel Recycling Pilot Program** Academic Custodial Services (ACS) and Facilities Management are participating in a paper towel waste reduction pilot program by installing automatic hand dryers in select restrooms across campus. As of 2010, ACS is using 100% recycled-content paper towels and toilet paper, and bio-bag trash liners.
- **Water-bottle Refilling Station** Facilities Management is in the process of installing a water-bottle refilling station pilot project to reduce the need for disposable water bottles. This is a pilot program paid for by the Green Energy Fee.

METRICS

- Collectively, dining facilities compost approximately 150,000 gallons of organic waste each year.
- The AS Recycle Center collects about 3,800 pounds of recyclable materials on campus daily, totaling about 850,000 pounds of material each year.
- 75 hazardous and toxic chemicals have been eliminated from the Western custodial inventory and replaced with ionized water cleaning solutions.
- According to waste audits, 85% of material currently going to landfills could be recycled or composted. Of this percentage, recyclable material contributes 45% and food scraps, food-soiled paper, and compostable utensils contribute 35%.

PROGRAM STRENGTHS

- *Zero Waste Western* supported by key stakeholders in the Western community
- A long and successively progressive history of recycling programs on campus through the AS Recycle Center

- Additional classified staff for waste reduction efforts
- Organic waste recycling efforts increasing in the dining halls and market cafes

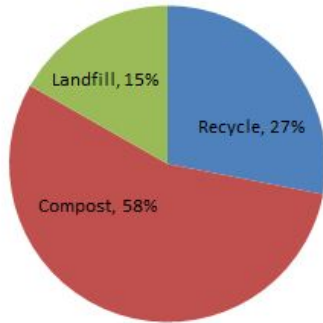
PROGRAM SUGGESTIONS

- At present all recycling options are not available in all buildings. Providing separate bins for paper, organics and compost, glass

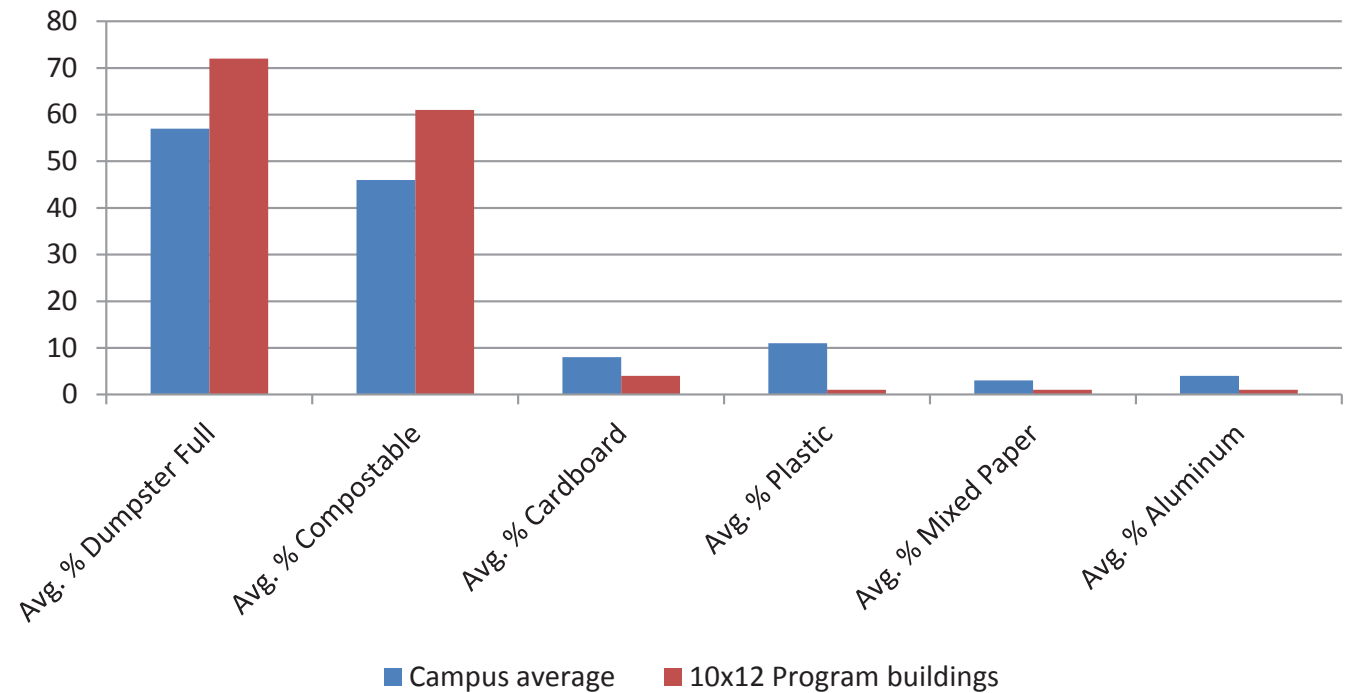
and plastics, and landfill waste reduces sort time at the AS Recycle Center and in-turn reduces total processing costs

- Conform composting and recycling signage and educational material across campus
- Create policy and goals surrounding waste reductions at Western
- Research waste compactor advantages to campus waste costs
- Convert hand towel dispensers to hand dryers where feasible

**Landfill Waste Composition
2009 - 2011**



**Waste Composition 2011
Campus Average vs. 10x12 Prog. Buildings**



Water

Students for Sustainable Water pursue a variety of social and environmental issues related to water quality, both globally and locally. Their project interests include international human rights, corporate ownership, local watershed health, and the impact of bottled water. Some of these issues are being addressed on campus. FM is using funding from the Green Energy Fee to install a reusable water bottle filling station to reduce the demand for pre/corporately-bottled water. FM is working with the EPA to implement a stormwater plan that will reduce the number of pollutants entering nearby surface and groundwater streams. FM, with assistance from the McKinstry consulting firm, is installing water conservation components on campus wherever the technology is applicable. The OS's 10x12 Program provides educational material and incentives for water conservation strategies, but staff are unable to accurately measure water usage at this time due to the lack of individual water meters on most campus buildings.

AREA UPDATES

- **ESCO** Western's Energy Savings Contract with the McKinstry engineering team includes work on water conservation measures. Some of these measures include low-flow fixtures and aerators to increase water pressure and reduce water output.
- **Rain Gardens** Miller Hall is equipped with rain gardens to mitigate stormwater runoff from building rooftops and surrounding paved surfaces. The gardens are planted with native riparian species.

METRICS

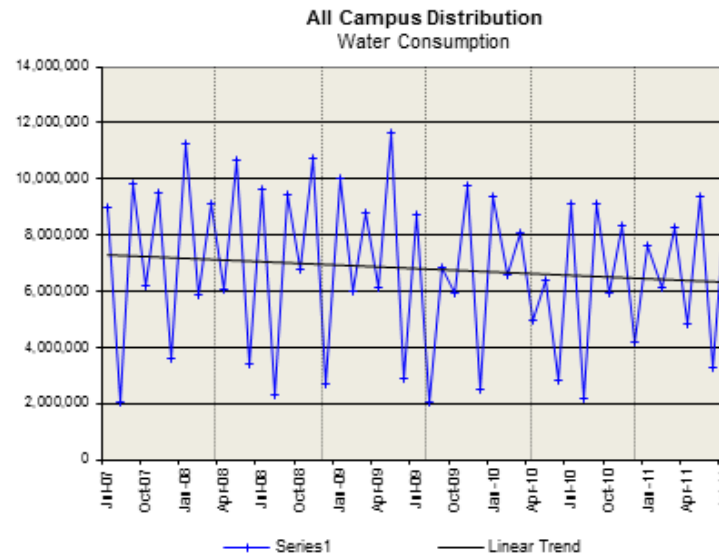
- McKinstry anticipates Western will save approximately \$58,549 annually in water utilities using conservation strategies.

PROGRAM STRENGTHS

- FM staff are motivated to implement water conservation strategies
- Drip irrigation for ornamental plantings and otherwise landscaped areas is beginning to be used widely
- 10x12 Program encourages water conservation strategies on campus

PROGRAM SUGGESTIONS

- Develop a formal water conservation policy for all campus buildings
 - Draft and implement a graduated plan for appropriate water use
- Install individual water meters for all campus buildings



Communication and Outreach

Western communications and outreach occurs in student clubs, departmental initiatives, academic research programs, public recognition, and service learning. One of the primary centers for connecting students with the community is the Western Center for Service-Learning (CSL). CSL receives support from Woodring College of Education, the Service-Learning Faculty Fellows Program, and the Retention Project.

AREA UPDATES

EVENTS

- **Earth Week 2011** During Earth Week 2011 faculty members presented *The Future of Sustainability in the Curriculum*, Business Sustainability, Renewable Energy, Woodring's *Center for Sustainability Education*, Sustainability Institute Initiative, and the Sustainability Literacy Course Sequence to Western and Bellingham community members.
- **Green Jobs Fair** In May 2011 the College of Business and Economics and the Office of Sustainability co-sponsored the first campus-wide Sustainable Opportunities Fair, focusing on internships with sustainability-focused companies and green jobs.
- **Business Alliance for Local Living Economies** In June 2011 the national BALLE conference, co-sponsored by Sustainable

Connections, met on Western's campus. According to BALLE, Bellingham is uniquely prepared to take on the challenges of the 21st century having components of academic and local partnerships, a strong and vital sense of place, and a relationship-based approach to common problems resolutions.

- **Sustainability Week** In October 2011 Western celebrated the 3rd Annual Sustainability Week. This event highlights Western's current sustainable practices and provides Western's community with networking for future action and involvement.
- **Sustainability Awards** Western's First Annual Sustainability Awards, presented in 2011, highlight important contributions to "Western Sustainability." Award winners included individuals and programs in Student Life, Operations, Academics, and Community Partnerships. These achievements demonstrate Western's progress in national leadership in sustainability.

RECOGNITION

- **Green Power Purchasers** The EPA and the Green Power Partnership work with a growing number of colleges and universities to highlight leading green power purchasers in the U.S. Western is ranked 17th in the nation and is the only institution from Washington State to make the top 20 list.
- **Sierra Club's Coolest Schools** Western is ranked 14th by the Sierra Club on their 5th Annual Coolest Schools ranking, a listing of higher education institutions focusing on greenhouse gas emissions reductions.
- **Beyond Grey Pinstripes** The Aspen Institute Center for Business Education ranked Western's MBA program as 75th in the world for 2009-2010 as a leader in social and environmental education.

PARTNERSHIPS

- **Academic Impact Program** SII and the Sustainability Academy aided Western's participation in the UN Academic Impact Initiative to incorporate sustainability into higher education. In February 2011 the Faculty Senate unanimously passed a resolution to join the Academic Impact. The recommendation has been approved by Provost Catherine Riordan and Western is in the process of enrolling.
- **Bellingham Sister Cities Association** The BSCA connects Whatcom County with communities around the Pacific Rim. In 2010 Western, Whatcom Community College, the City of Bellingham, Whatcom County, and Sustainable Connections

secured funding for representatives from Nakhodka, Russia to visit Bellingham. The meeting furthered dialogue on “best practices” in sustainability education for residents in Nakhodka.

- **Western Sustainability Internship Program** was a collaborative effort between the OS and SII to connect students with partners in Bellingham and the regional community who are looking for opportunities to adopt sustainable practices.

METRICS

- The federal government requires Western to use 7% of all work-study funds for community service. Western uses approximately 12 to 14% for community service
- Faculty who took active leadership roles in Earth Week activities increased from less than 20 in 2010 to almost 30 in 2011
- Approximately 20% of AS Student Clubs registered between 2010-2011 are directly formed around sustainability initiatives
- Approximately 25% of AS clubs deal with sustainability issues through the course of their overall work
- 36% of total press releases from the Office of University Communications fit the definition of sustainability

PROGRAM STRENGTHS

- Widespread community interest in sustainability in education, government, business, and non-profit sectors

PROGRAM SUGGESTIONS

- Create a regularly-distributed news publication focused on Western’s Sustainability activities and initiatives for both on and off-campus audiences.
- Host a regional conference to allow regional higher education institutions to share practices and form common goals and indicators.

Food

In May 2011 Western named Aramark as its new campus foods vendor for University Dining Services (UDS). UDS manages the majority of food options for campus. Independent vendors located on "Vendor's Row" outside the Viking Union also provide food options for the Western community. Western is working with Aramark on transition planning and dining options that are a good fit for Western. Some of the newly proposed dining venues include sustainable foods venues such as "Engrained Café," "Greens to Go," and "Topio's," among others. UDS is committed to promoting sustainable agriculture, eating seasonally, choosing local and organic foods, and giving preference to individuals who produce and distribute sustainable foods.

AREA UPDATES

- **Real Food Challenge** The *Real Food Challenge* is a nationwide movement to measure sustainable food purchases on college campuses using a criteria-based calculator. At least one of the following criteria must be met to reach this food standard:
 - o Certified fairly-traded
 - o Certified USDA Organic
 - o Locally-grown within 150 miles
 - o Certified humanly raised

In 2009, UDS, Students for Sustainable Food, and the OS prompted the *Real Food Challenge* at Western, a goal to spend 20% of the food budget on local, organic, fair-trade, and humanly raised foods.

- **Local Purchases** Western and UDS have chosen to support at least two farms in Whatcom County. These include apple purchases

from BelleWood Acres and dairy purchases from Edaleen Dairy in Lynden, WA.

- **Growing Washington** Growing Washington (GW) is a non-profit organization formed to help small farmers increase their distribution by entering into new markets, especially schools, in the western Washington region. In 2010 GW provided about 14% of Western's produce for the months of October and November. The organization has leased land, named Viking Field, to keep up with demand.
- **Coffee Purchases** All coffee on campus is purchased Fair Trade certified
- **Seafood Purchases** UDS follows *Seafood Watch* guidelines for fish purchases
- **Composting** Pre-and post-consumer waste produced in dining facilities is collected by Sanitary Service Company, directed to Green Earth Technology in Lynden, WA, and converted to high quality A or AA-Grade gardening compost.
- **Viking Supported Agriculture** The Office of Sustainability, in cooperation with Growing Washington, provides individuals opportunity to pay into a Community Supported Agriculture box and receive fresh, locally grown produce.
- **Vendors Row** Most vendors use compostable containers for drinks and food.

METRICS

- Western is among more than 300 universities participating in the Real Food Challenge.
- Last year, 19% of Western's food purchases from October and November qualify as Real Food according to challenge standards.
- Western's current goal is to purchase 20% Real Food by 2012
- Implementation of tray-less dining reduced total food-related waste by 30% on average in dining halls
- Chart: Real Food Purchases 2009 & 2010. Real Food A = Food purchases qualify for two or more categories: Fairly-traded, organic, locally-grown, and humanely-raised. Real Food B = Food purchases qualify for one category only.

PROGRAM STRENGTHS

- Sustainability elements are written into the current University's Dining Services contract.

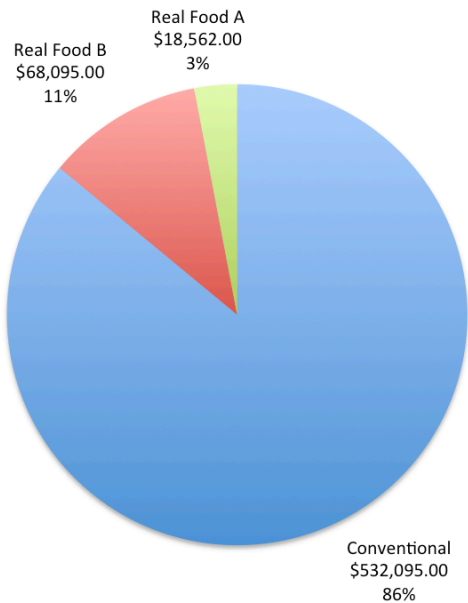
- A joint student position between UDS and the Office of Sustainability manages the *Real Food Challenge* through food purchase tracking and seeking out local providers.
- UDS is a goal setting organization committed to purchasing local, organic, fair trade, and humanely raised food.
- Significantly reduced waste and an increase in recycling and compost has placed Western among the three largest food-scrap recyclers in Whatcom County.
- Student interest through the Students for Sustainable Food group encourages a sustainable food system on campus.
- UDS supports sustainable foods education through events such as the *Weigh the Waste* program, a *“Viking Field”* meal during Earth Week, Helping Hands food drives, and the highlighting local produce.
- “Fresh & Local” foods are highlighted on menus throughout dining halls.
- “Local Foods” movement in Bellingham and at Western fosters partnerships with local agricultural communities in Whatcom

County and the Pacific Northwest region to support sustainable foods.

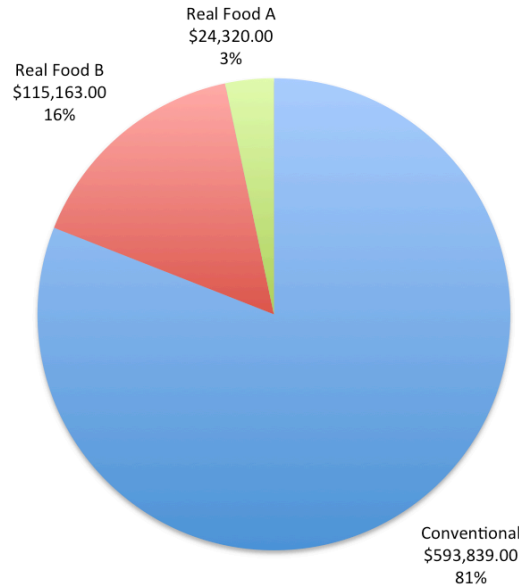
PROGRAM SUGGESTIONS

- Find additional support for invoice tracking for the *Real Food Challenge*.
- Seek infrastructure for local foods storage or production during winter months seasons
- Promote increased education about the economic, social, and personal health benefits from choosing local and organic foods individually and as a university.
- Incorporate and/or provide incentives for serving foods grown on-site at the Outback Farm.
- Increased education opportunities to help students make informed, responsible food choices, and hold accountable those who make food choices on their behalf.

**Real Food Purchases
Oct. & Nov. 2009: 14% Real Food**



**Real Food Purchases
Oct. & Nov. 2010: 19% Real Food**



Appendix

SUSTAINABILITY TRACKING ASSESSMENT AND RATING SYSTEM (STARS)

The Association for the Advancement of Sustainability in Higher Education (AASHE) developed the STARS program in 2006 to accomplish two primary roles: tracking sustainability progress within an institution and sharing this progress with other institutions. As a tracking tool, STARS provides standards for an institution to measure their existing and proposed sustainability programs, projects, and goals. As a sharing tool, STARS publishes individual results for other members of the program. Using these methods for tracking and publication, STARS provides a comprehensive and standardized means for universities across the United States and Canada to measure and compare their unique sustainability programs and performances relative to other institutions.

Since 2006, STARS has undergone a series of revisions and updates to better perform the role of a comprehensive assessment document, including the refinement of a categorical point system. In order to maintain a comprehensive methodology and standard of measurement, STARS categories are necessarily broad and under-defined. This leaves room for individual institutions to shape a unique program so that it accomplishes a specific aspect of a larger, shared goal. The following areas and corresponding percentages indicate Western's performance according to STARS and is not a self-evaluation over any given period of time. Points are allotted for several potential initiatives in each topic area. We have translated our preliminary point findings into a percentage for each area below. As we progress, we hope to fully integrate the STARS system into the Western Sustainability report.

GROUNDS – 92%

- **Strengths:** Integrated Pest Management Plan, native plants, composting, snow/ice removal, wildlife habitat.
- **Weaknesses:** Not current members of Tree Campus USA.

PURCHASING – 76%

- **Strengths:** EPEAT Gold computers, Green Seal cleaning products, recycled content paper, prioritizing underutilized businesses.
- **Weaknesses:** Sustainability addressed in vendor's codes of conduct, local business preferences

COORDINATION & PLANNING – 72%

- **Strengths:** Strategic plan, campus plan, climate plan, sustainability coordination (staff, office, committee, etc.)
- **Weaknesses:** Sustainability Plan

WATER – 69%

- **Strengths:** Stormwater management, water metering, xeriscaping.
- **Weaknesses:** Water consumption, waterless urinals, non-potable water usage.

DIVERSITY AND AFFORDABILITY – 67%

- **Strengths:** Diversity and equity coordination, measuring campus diversity, support programs for underrepresented groups, Affordability and Access programs, and gender neutral housing.
- **Weaknesses:** Support programs for future faculty, employee training opportunities, and student training opportunities.

INVESTMENTS – 55%

- **Strengths:** Positive Sustainability Investments (socially responsible mutual funds). Positive screens, CDFIs, renewable energy, forestry
- **Weaknesses:** Committee on socially responsible investment, shareholder advocacy, student managed SRI funds, investment disclosure.

TRANSPORTATION – 54%

- **Strengths:** Student commute modal split, bicycle plan, mass transit, condensed work week, telecommuting, carpool/vanpool matching, carpool discount.
- **Weaknesses:** Alternative fueled campus fleet, car sharing, prohibiting idling, local housing, cash-out of parking, bicycle sharing and facilities.

PUBLIC ENGAGEMENT—48%

- **Strengths:** Community sustainability partnerships, inter-campus collaboration on sustainability, sustainability policy advocacy, trademark licensing.
- **Weaknesses:** Sustainability in continuing education, community service participation/records, graduation pledge, farmers market.

HUMAN RESOURCES – 47%

- **Strengths:** Sustainable Compensation, childcare, employee wellness, retirement plans.
- **Weaknesses:** Employee satisfaction evaluation, staff professional development in sustainability, sustainability educators program.

DINING SERVICES – 43%

- **Strengths:** Real food challenge, trayless dining, vegan options, trans-fat free, composting, food donation, recycled napkins, reusable mug discounts.
- **Weaknesses:** Sustainable food/beverage purchasing, reusable to-go containers.

WASTE—43%

- **Strengths:** Hazardous waste management, electronic waste recycling program, printing limits, online materials, materials exchange.
- **Weaknesses:** Waste reduction, waste diversion, chemical reuse inventory.

BUILDINGS—31%

- **Strengths:** Indoor Air Quality plan, LEED construction/design certifications.
- **Weaknesses:** None of our buildings are currently certified under the LEED® for Existing Buildings: Operations & Maintenance (O&M) Green Building Rating System.

CLIMATE – 21%

- **Strengths:** Greenhouse gas emissions inventory.
- **Weaknesses:** Greenhouse gas emissions, air travel emissions, local offsets program.

ENERGY – 17%

- **Strengths:** Timers for temperature control, lighting sensors, LED lighting, vending machine sensors, energy management system, energy metering.
- **Weaknesses:** Building energy consumption and clean and renewable energy.

INNOVATION CREDITS:**VEHICLE RESEARCH INSTITUTE (VRI)**

The VRI is the research, or project, arm of the Industrial Technology – Vehicle Design (IT-VD) program. Both the IT-VD, through its course content and the VRI, through its projects, address issues of sustainability and alternative fuels in the design and operation of vehicles.

GREEN ENERGY FEE PROGRAM

The Green Energy Fee (GEF) Program exists to promote experiential learning opportunities and sustainable practices at Western. This is done through purchase of Renewable Energy Certificates to offset 100% of the electrical consumption of Western as well as the funding of innovative student-driven projects.

WESTERN BOOKSTORE REUSABLE BAGS

In the fall of 2010, Western's AS Bookstore purchased 10,000 reusable and imprinted bags to give away to customers.

OUTDOOR ENVIRONMENTAL LEARNING SITE (OELS)

For over 30 years, the OELS, also known as "The Outback," has served as a site where students can pursue concepts of environmental sustainability and holistic community in an applied, hands-on approach.