

WEBER STATE UNIVERSITY CLIMATE ACTION PLAN

PROGRESS REPORT FOR FY 2013 & 2014

The intent of this report is to clarify and communicate the successes and failures of Weber State University's efforts to become carbon neutral and more sustainable. Though some organizations might utilize a sustainability report to emphasize success and gloss over failures, we believe a frank assessment provides vital insight for moving toward our goals. We will use both absolute and relative metrics to best communicate our current status and progress.

As a signatory to the American College and University President's Climate Commitment, Weber State has committed to achieve carbon neutrality by the year 2050. This is an ambitious goal, but given adequate resources for investment in sustainability and energy reduction, coupled with behavioral and attitudinal changes among students, staff and faculty, it is achievable. This report details progress towards that ultimate strategic goal of carbon neutrality by 2050 and provides an update on progress towards making the campus more sustainable.

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LEADERSHIP STATEMENT

Leadership Statement

Weber State is committed to improving the learning environment in every way. One of those ways is by careful investment in long term sustainability programs that represent both sound business practices and decisions, but also sensitivity to and actions to support an improved natural environment. We feel that long term sustainability, improving our natural environment, and sound business decisions are not mutually exclusive, but are instead synergistic in making our university more attractive to students, more cost effective overall, and provide the greatest value overall for our financial and human resource investments. We are in this for the long term.

Kevin P. Hansen

Associate Vice President for Facilities & Campus Planning

NOTABLE SUSTAINABILITY NEWS

Notable Sustainability News

AWARDS AND RECOGNITION

- Weber State University Honored for Reducing Energy Use by Nearly One-Third: On March 26, 2014, Weber State University received Rocky Mountain Power's wattsmart Business Partner of the Year award for the University's commitment to energy efficiency. Over the past six years, Weber State has reduced its electrical consumption by over 20 percent even though the university has added 10 percent more square footage.
- For the third year in a row, Princeton Review selected WSU as one of 330 schools in the U.S. and two in Canada "that demonstrate notable commitments to sustainability in their academic offerings, campus infrastructure, activities and career preparation." To view WSU's profile in "The Princeton Review's Guide to 322 Green Colleges: 2014 Edition" please visit: <http://www.princetonreview.com/green-guide.aspx>
- Weber State University was officially listed as one of the 2014 173 "cool schools" in the USA, according to Sierra Club Magazine. Hundreds of institutions of higher education were surveyed and ranked according to their measurable sustainability goals and accomplishments. All aspects of the campus dynamic, from academic programs to food services, from landscaping to energy-reduction devices, from administrative commitments to collaborations with public agencies and non-profit organizations, were taken into account. WSU's final ranking was 141st in the Nation. Sierra Club's final rankings can be viewed at: <http://www.sierraclub.org/sierra/2014-5-september-october/cool-schools-2014/full-rankingv>
- The Arbor Day Foundation again named Weber State University a Tree Campus USA in 2014 for its commitment to effective community forestry management. WSU achieved the designation by meeting the required five core standards for sustainable campus forestry: a tree advisory committee, a campus tree-care plan, dedicated annual expenditures for its campus tree program, an Arbor Day observance and the sponsorship of student service-learning projects. A full listing of recognized schools can be found at: <http://www.arborday.org/programs/treecampususa/campuses.cfm>

NOTABLE SUSTAINABILITY NEWS

SUSTAINABILITY PRACTICES AND RESEARCH CENTER (SPARC)

A Sustainability Practices and Research Center at WSU is almost a reality – awaiting only approval from the Board of Regents. An organizational rather than physical structure, as Provost Michael Vaughan explains, it will connect faculty and staff who are already performing this research and practice “with the hope that efforts . . . will increase and flourish over time.”

Dr. Alice Mulder was officially named the Center’s Director in December, 2014. Dr. Mulder and a soon-to-be-hired full-time sustainability coordinator will oversee the center’s activities, which will include workshops, lectures and student projects emphasizing interdisciplinary collaborations. The wider Ogden-Weber community will be invited to participate.

An aspect of the center’s work will feature the Susie Hulet Solar Program, which will educate community members “on the benefits of installing solar power in their home, and . . . on what is required if they wish to do that, and then to put them in touch with licensed certified contractors that can do the actual work.”

Hulet has been a supporter and promoter of sustainable projects worldwide as well as a committed member of the EIC at WSU. The program is aptly named. It will strengthen the center’s ability to change people’s reliance on non-renewable energy, a longtime goal of Hulet.

5TH ANNUAL INTERMOUNTAIN SUSTAINABILITY SUMMIT A GREAT SUCCESS

The 5th Annual Intermountain Sustainability Summit took place on March 6th and 7th 2014 in WSU’s Shepherd Union Building. Roughly 500 people were in attendance for the keynote including students, faculty, staff, government and city employees, interested public, and sustainability professionals. Over 300 people attended the full conference.

WSU President Chuck Wight opened the Summit, stressing the fragility of humankind and the importance of sustainability in ensuring the perpetuity of future generations. Morning speaker Dr. C Arden Pope provided a comprehensive discussion on the health effects associated with short-term and long-term exposure to air pollution, debunking claims of several legislators that the harmful effects of breathing fine particulate air pollution is a “secret science”.

It was a pleasure to have former Governor of Utah, Olene S. Walker, introduce Summit keynote speaker Secretary of the Interior Sally Jewell. Secretary of the Interior Sally Jewell’s keynote address covered a number of topics including climate issues, energy efficiency, the dry spell in the West, and her experience with sustainability as CEO at REI. One of the most notable points of Secretary Jewell’s talk was her discussion of youth and the environment and the important role

NOTABLE SUSTAINABILITY NEWS

the new generation of millennials will play in shaping the sustainability of our future. She emphasized that we have a moral imperative to engage the next generation in environmental issues through education, employment and volunteer opportunities on public lands, and that for young people, unrestricted play in nature is critical in fostering creativity and an appreciation for the natural world.

The 5th annual Sustainability Summit featured two new tracks including air quality and green building. The student sustainability poster competition on the main floor of the Shepherd Union featured 20 entries from students at a number of colleges and universities. The Friday workshops drew in a number of students and sustainability professionals. The LEED GA and AP workshops were most attended. Other workshops included an aerated composting workshop where attendees had a chance to check out WSU's food composting facilities as well as a workshop titled "Navigating Utah's Political System," taught by former WSU student Turner C. Bitton.

THREE-YEAR ENGAGED LEARNING SERIES FOCUSES ON SUSTAINABILITY

The Weber State Engaged learning series is a yearly series of exhibitions, speakers, and community service events around a selected sustainability theme. Professor Sarah Steimel serves as the coordinator for the ELS.

Water Works

In early spring, 2012, Diane Stern, the Director of Cultural Affairs, Alice Mulder, faculty member in Geography, and Madonne Miner, dean of the College of Arts & Humanities, asked Provost Mike Vaughan if he would consider funding an on-campus visit by Sandra Steingraber, acclaimed ecologist, biologist, and author of *Living Downstream*, *Raising Elijah*, as well as essays and poems examining humans' troubled relationships with water.

Mike Moon suggested bringing in additional speakers to address water as a topic rather than just one—and Water Works was born. Five guests from outside WSU came to speak including photographer Rosalie Winnard, public artist Andy Dufford, Sandra Steingraber, environmentalist Dan McCool, and explorer Craig Childs. The Water Works series also included several WSU panels, films, art exhibits, and readings, all dealing with water. This cross-college effort gave way to the first series of annual sustainability discussions at Weber State University.

On Air Series

As one of life's essential elements, air plays a key role in everything we as people do. Air quality affects our health and the health of our planet, creates opportunities for sport and play, helps pollinate crops, provides jobs and helps in transport, minimizes pollution, and provides a supply of energy to all living beings. In these and in many other ways, air matters. With poor air quality

NOTABLE SUSTAINABILITY NEWS

and the winter inversion becoming critical issues in Utah, Air was chosen as the topic for the 2013 Engaged Learning Series.

Highlights from the series included Lt. Governor Greg Bell and Senior Environmental Advisor Alan Matheson discussing the current state of air quality in Utah and the path forward, as well as a presentation by Dr. Adam Serchuk, Senior Analyst for Vestas America, on the prospects for the global wind power industry, and a film screening and discussion of “Gasland” and “The Idle Threat”. Dr. Brian Moench from Utah Physicians for a Healthy Environment gave an eye-opening presentation on the health impacts of poor air quality and Chip Ward advocated the importance of citizen engagement with environmental issues.

Food Matters

Sustainable food and agriculture was chosen for the 2014-2015 Engaged Learning Series. The ELS kicked off with a film titled “Ingredients: Whose Your Farmer?” co-sponsored by the Environmental Issues Committee. Charlie Ignot from the Center for Food Integrity brought forth the issue of global food security and what will be required to feed a growing population. The Food Matters series also sponsored a demonstration and lecture at the LDS Institute the titled *Provident Living: Local Food for Thought* where local vendors and professors provided demonstrations and samples of local food such as cheese, yogurt, honey, canning etc. A panel discussion on Hunting and the Environment provided a number of unique perspectives on the balance between hunting and conservation and the most sustainable and mindful ways we can get our calories.

GREENHOUSE GAS (GHG) EMISSIONS

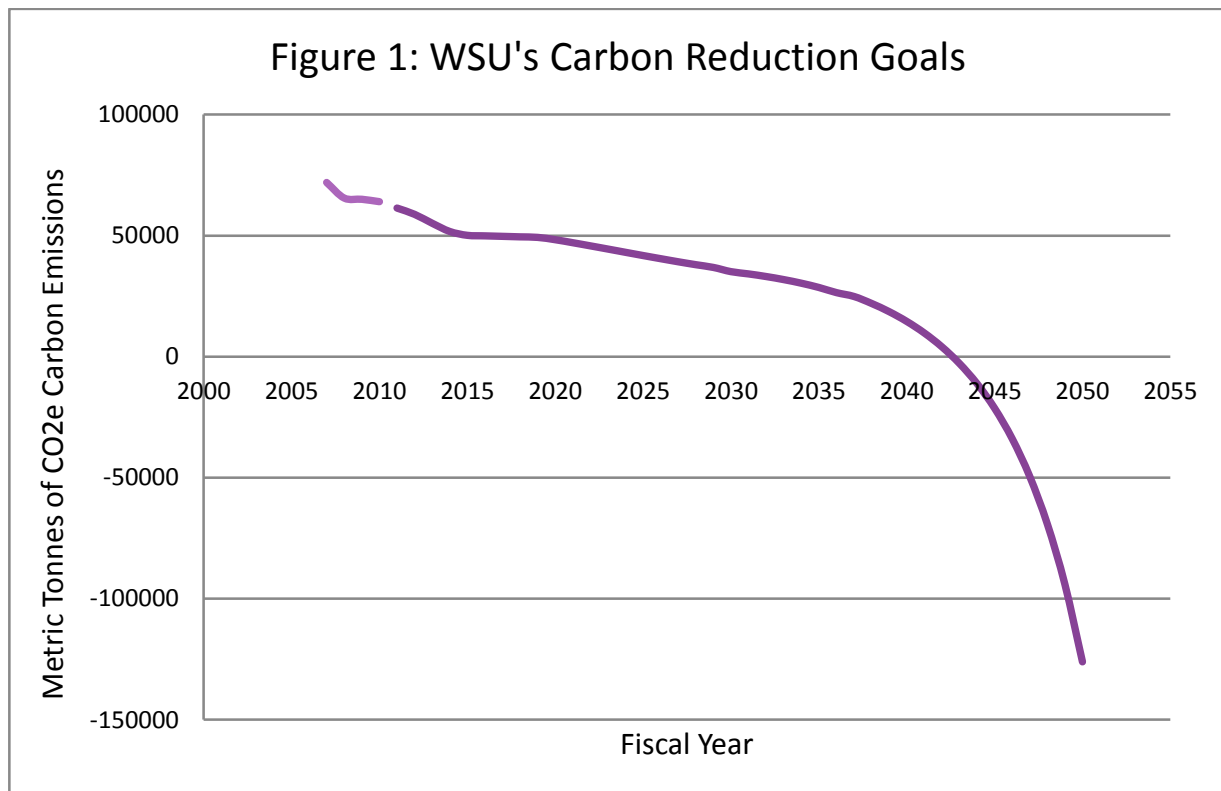
Greenhouse Gas (GHG) Emissions

NOTE REGARDING CARBON EMISSIONS CALCULATIONS

This report contains updated emissions numbers using the latest version (v 7.0) of the Clean Air-Cool Planet Campus Carbon Calculator. With each version, Clean Air-Cool Planet updates emissions factors used to calculate carbon emissions. Therefore, there will be some discrepancies when comparing the numbers in this report to the reports of previous fiscal years. For more information about the Campus Carbon Calculator and emissions factor changes please visit: <http://www.sustainableunh.unh.edu/calculator>.

CARBON REDUCTION GOALS

WSU's Climate Action Plan, adopted in 2009, states that the University's ultimate goal is to be carbon neutral by the year 2050. Figure 1 below is a model developed by WSU's Energy Manager, Jacob Cain, that provides details on WSU's intermediate emissions reduction targets. Per this model, WSU should have reduced its emissions by 30% this fiscal year to stay on track towards meeting the 2050 goal. WSU's progress on this intermediate goal is reported in the sections below.



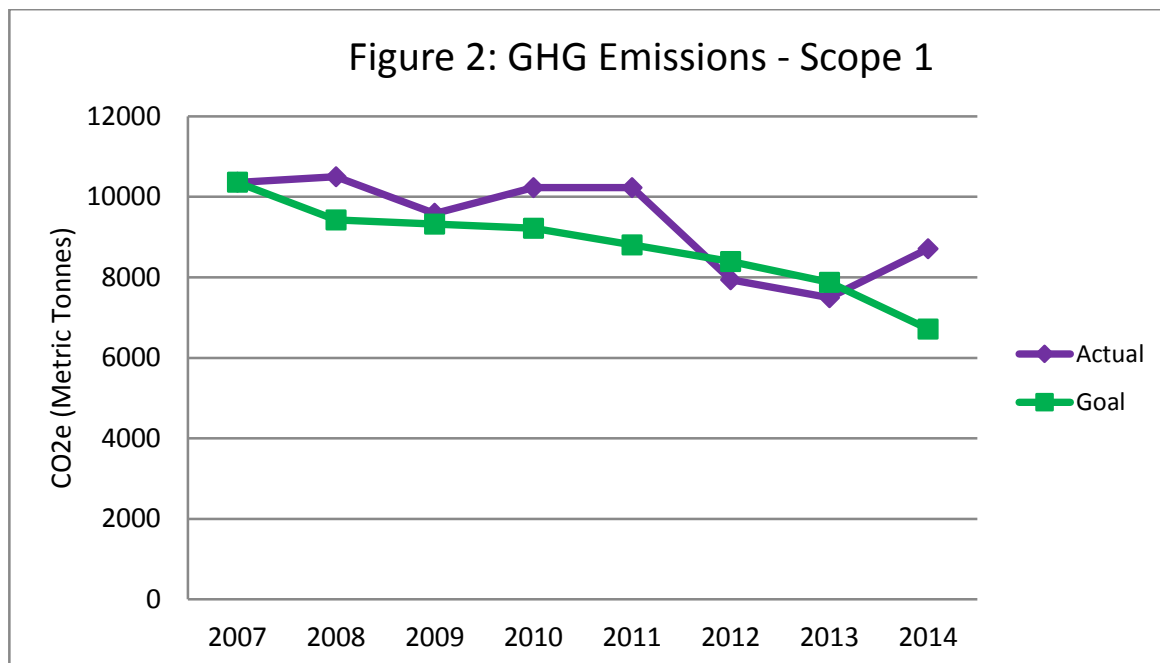
GREENHOUSE GAS (GHG) EMISSIONS

SCOPE 1 EMISSIONS

Carbon emissions are typically reported in three categories: Scope 1, Scope 2 and Scope 3 emissions. Scope 1 emissions are defined as those emissions occurring from sources that are owned or controlled by the institution, including: on-campus stationary combustion of fossil fuels; mobile combustion of fossil fuels by institution owned/controlled vehicles, and “fugitive” emissions. For Weber State University, Scope 1 emissions are primarily derived from the central heat plant which runs on natural gas (diesel during emergencies) and the University fleet which runs on traditional gasoline, diesel and compressed natural gas (CNG).

In FY 2012, emissions associated with fertilizer application were added to WSU’s Scope 1 carbon footprint. While fertilizer has been applied to WSU’s landscape in years past, the historical data is not available. Emissions data for future applications will be collected now that this data is available.

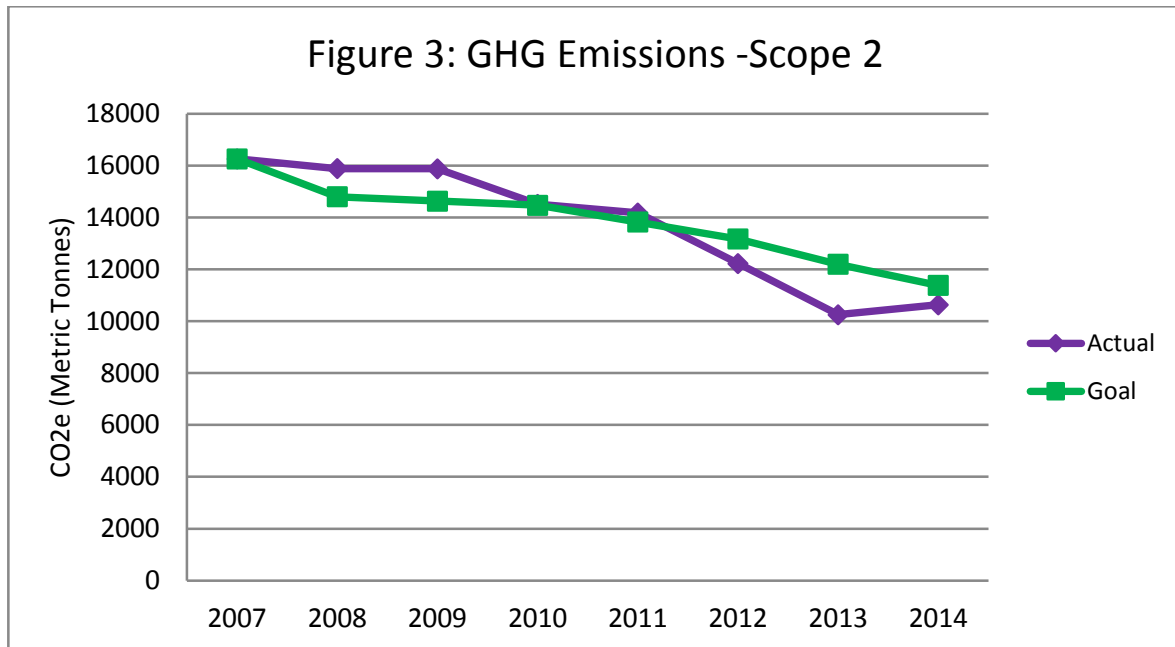
This fiscal year refrigerant emissions have also been added to the Scope 1 report. Refrigerant data (available back to FY 2011) was added to the Scope 1 emissions totals for previous years. As can be seen from the figure below, WSU’s Scope 1 emissions reductions were on target for fiscal years 2012 and 2013 but rose in FY 2014. The vast majority of the increase in emissions can be attributed to the fact that WSU has added over 200,000 square feet to its campuses. A minor portion of the emissions increase can be attributed to increases in vehicle fuel use, increases in fertilizer use, and the addition of refrigerant data.



GREENHOUSE GAS (GHG) EMISSIONS

SCOPE 2 EMISSIONS

Scope 2 emissions are defined as indirect emissions generated in the production of electricity consumed by the institution. Figure 3 below shows that WSU surpassed its emissions reduction goal by 5%. These savings can largely be attributed to campus-wide interior and exterior lighting upgrades. Additional completed energy efficiency projects are noted under the Energy Efficiency & Renewable Energy Projects at WSU Section of this report.



SCOPE 3 EMISSIONS

Scope 3 emissions are defined as other indirect emissions that are a consequence of the activities of the institution, but occur from sources not owned or controlled by the institution. Scope 3 emissions include University-related air travel, student, faculty, and staff commuters, and solid waste generation.

For previous years' reports, air travel data was collected by multiplying total WSU flights (obtained from WSU's Purchasing Department) by national average flight miles (see http://www.bts.gov/press_releases/). In FY 2012, WSU's Purchasing Department used WSU purchasing reports to collect destination and mileage data for each flight. Therefore the data from FY 2012 on is more accurate because it is based on actual WSU trips and not an estimate of national average flight miles.

GREENHOUSE GAS (GHG) EMISSIONS

WSU's solid waste generation numbers have been obtained from the University's contractor, Waste Management. WSU changed waste haulers in 2014 and did not receive any information from Waste Management for that fiscal year. Therefore, the waste numbers from FY 2013 were used for FY 2014 for emissions reporting purposes. In future years, the Environmental Ambassadors will collect this data.

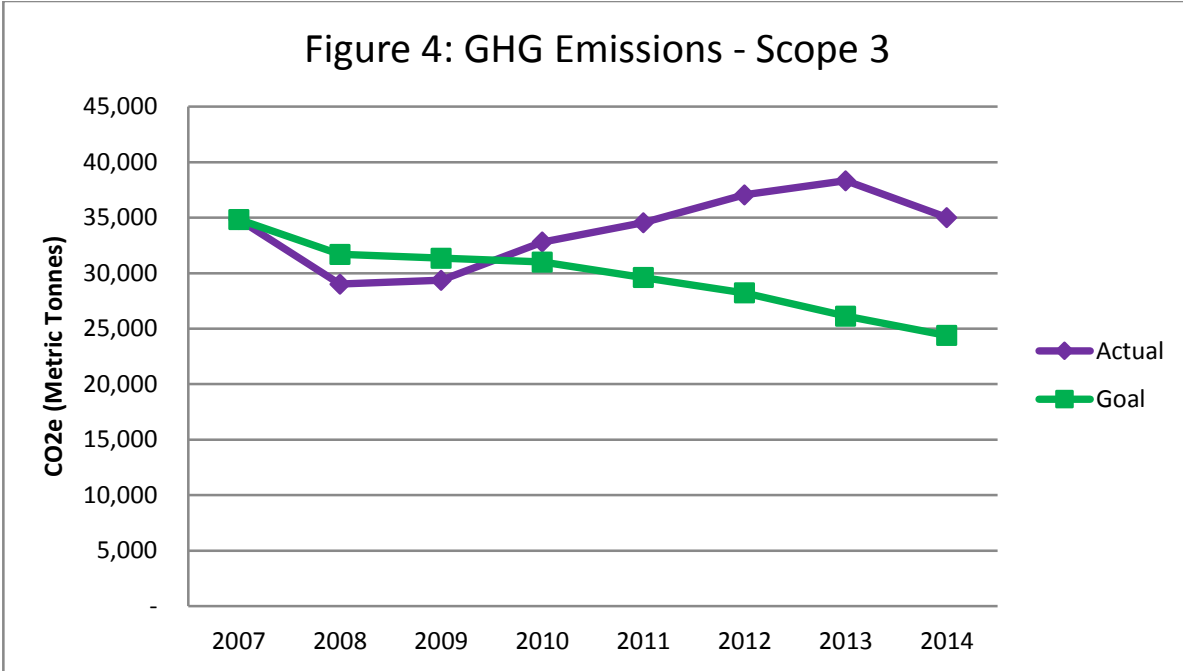
Commuting emissions data are derived from a survey conducted every few years by the Energy & Sustainability Office. The first survey was conducted in the spring of 2011 and the second was conducted in the spring of 2014. In both instances, surveys were sent to a random sample of students, faculty and staff through WSU's Student Voice. Survey participants were asked to report on the mode(s) of transportation used to travel to campus, the distance from their home to campus, and the average number of days per week traveled to campus. If respondents indicated that they traveled to both the Ogden and Davis Campuses, then data for travel to both campuses was collected. Using the survey data, the commuting emissions for students, staff and faculty were calculated. See Table 1 below.

Table 1: Commuting Emissions (CO₂e metric tonnes)

Year	Students	Staff/Faculty
2007	22480.4	5,450.8
2008	21,355.4	5,757.8
2009	21,698.7	5,751.5
2010	23,246.8	5,677.9
2011	24,430.9	5,705.4
2012	24,984.8	6,241.0
2013	25,338.1	6,120.6
2014	23,462.7	4,679.9

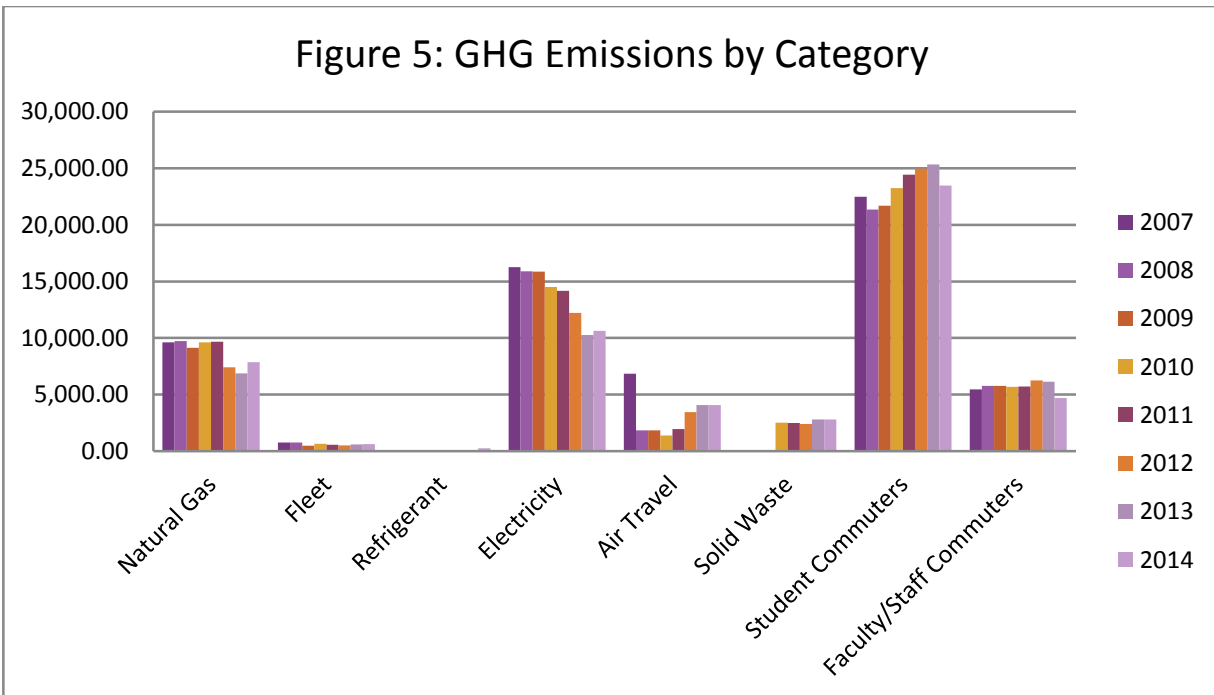
Total scope 3 emissions are depicted in Figure 4. As can be seen from the graph below, Scope 3 emissions have been increasing up until this fiscal year. The decrease this year can be attributed to a smaller student population and fewer faculty trips to campus.

GREENHOUSE GAS (GHG) EMISSIONS



TOTAL GHG EMISSIONS

Figure 5 compares the primary sources of Scope 1, Scope 2, and Scope 3 emissions sources side by side. As can be seen from the chart, student commuting represents the largest source of emissions followed by electricity and natural gas consumption.

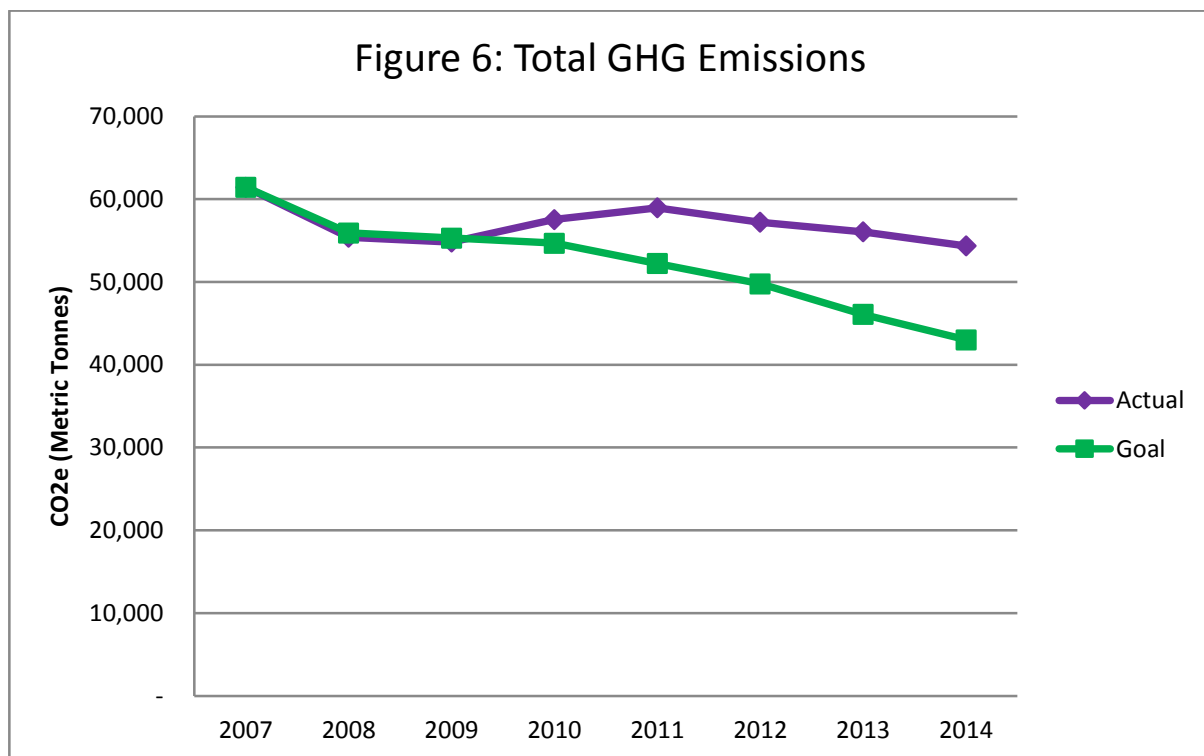


GREENHOUSE GAS (GHG) EMISSIONS

- The change in air travel from 2007 to 2008 is due to decreased air travel and due to a change in how the data is collected
- Solid waste emissions increased in Fiscal Year 2010 not because overall waste generation increased, but because the University decided to send the waste to a new landfill that does not have methane recovery capabilities.

Figure 6 shows WSU's total emissions reduction progress. While WSU is not currently meeting its goal of 30% reduction this fiscal year, significant progress has been made. Total emissions have been reduced by 11% from the baseline year.

Overall progress is being impeded by Scope 3 emissions. As long as the vast majority of the WSU community chooses to travel to campus in a single-occupancy vehicle, it is given that emissions from University commuters will remain high and will rise as population increases.



GHG EMISSIONS PER BUILDING SQUARE FOOT

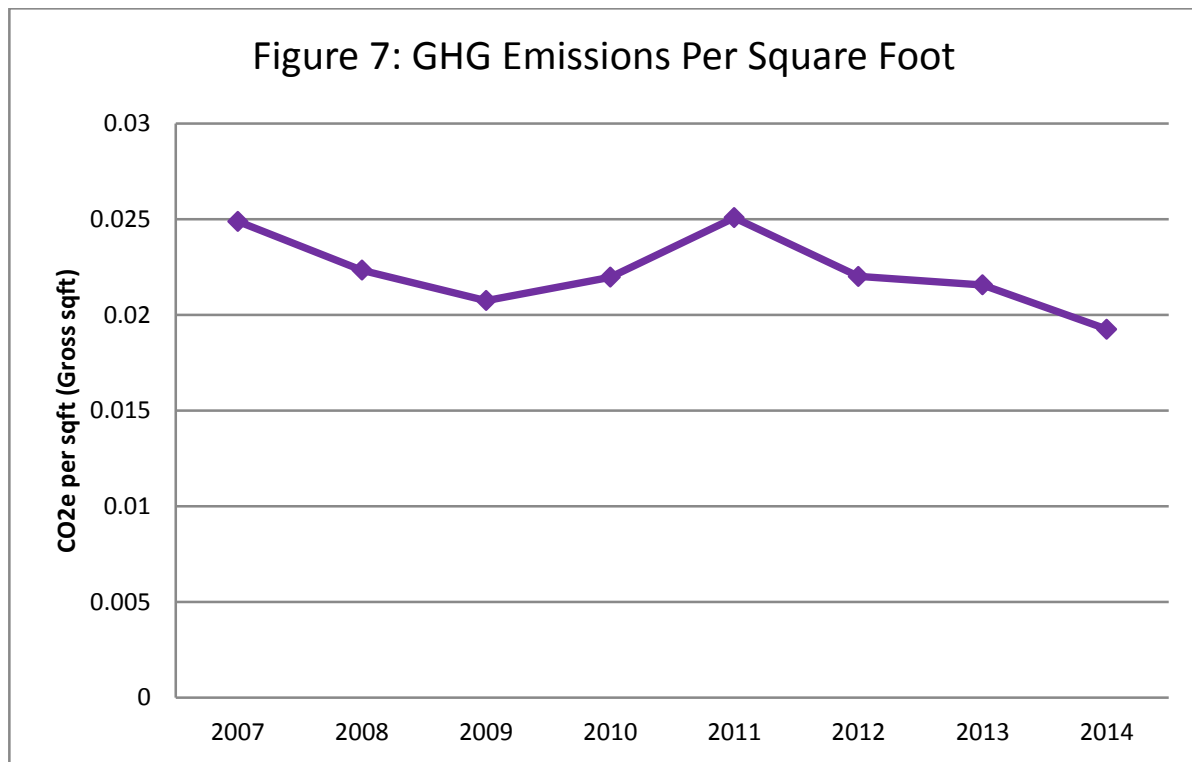
As can be seen in Table 2 below, WSU added 224,158 square feet in FY 2014. Figure 7 depicts emissions per square foot and shows a decrease in emissions this past fiscal year. This decrease can partially be attributed to the completion of energy efficiency projects as discussed previously.

GREENHOUSE GAS (GHG) EMISSIONS

However, it can also be attributed to the replacement of old buildings with new, more energy efficient, buildings.

Table 2: WSU Gross Building Square Footage by Year

Fiscal Year	Gross Building Square Footage
2007	2,469,079
2008	2,480,723
2009	2,642,600
2010	2,619,259
2011	2,350,587
2012	2,599,201
2013	2,599,573
2014	2,823,731



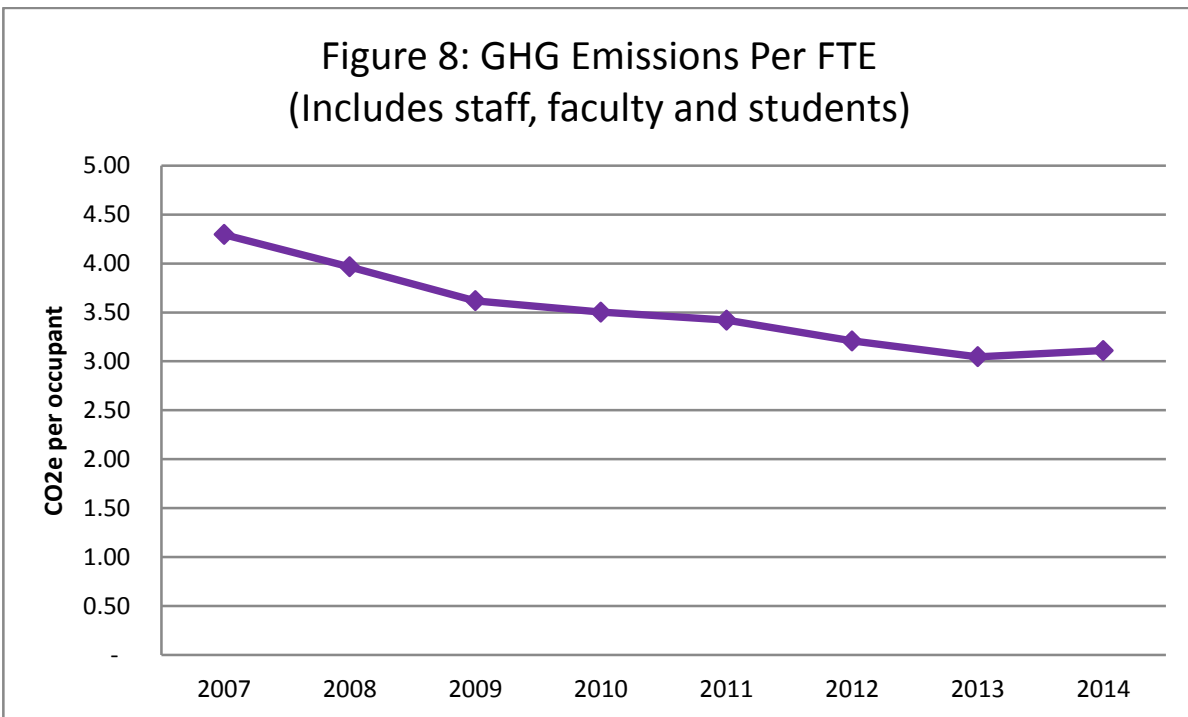
GHG EMISSIONS PER FULL TIME EQUIVALENT (FTE)

Table 3 and Figure 8 show that WSU's population decreased this fiscal year and emissions per FTE increased slightly.

GREENHOUSE GAS (GHG) EMISSIONS

Table 3: WSU Population by Year (in FTE)

Fiscal Year	FTE Students, Faculty, and Staff
2007	14,308
2008	13,972
2009	15,148
2010	16,430
2011	17,232
2012	17,834
2013	18,408
2014	17,474



ENERGY CONSUMPTION AND CONSERVATION

Energy Consumption and Conservation

Energy consumption (electricity and natural gas) represents a considerable portion of the University's GHG emissions. Energy conservation also represents an opportunity for the University to save significant amounts of money. For these two reasons most of the initial sustainability effort is being expended towards making the University as energy efficient as possible.

UNIVERSITY ENERGY CONSUMPTION

Table 4 depicts WSU's electricity and natural gas consumption figures. From the baseline year of 2007, WSU has reduced its electricity consumption by 24% and its natural gas consumption by over 15% thanks to the completion of several key energy efficiency and renewable energy projects. Increases in electricity and natural gas consumption in FY 2014 can be attributed to the addition of over 200,000 square feet.

Table 4: WSU Building Energy Consumption

Fiscal Year	Electricity (kwh)	Natural Gas (MMBTU)
2007	38,714,341	174,846
2008	38,927,520	176,545
2009	38,905,072	170,782
2010	38,082,772	180,215
2011	37,717,473	181,921
2012	33,131,629	139,214
2013	28,478,606	128,673
2014	29,384,002	147,638

Since fiscal year 2007 WSU has reduced its total building energy consumption by 19.3% (see Figure 9). WSU's energy consumption per square foot dropped by 29.4% and WSU's energy consumption per occupant was reduced by about 34% since fiscal year 2007 (see Figures 10 & 11).

ENERGY CONSUMPTION AND CONSERVATION

Figure 9: Total Building Energy Consumption (MMBTU)

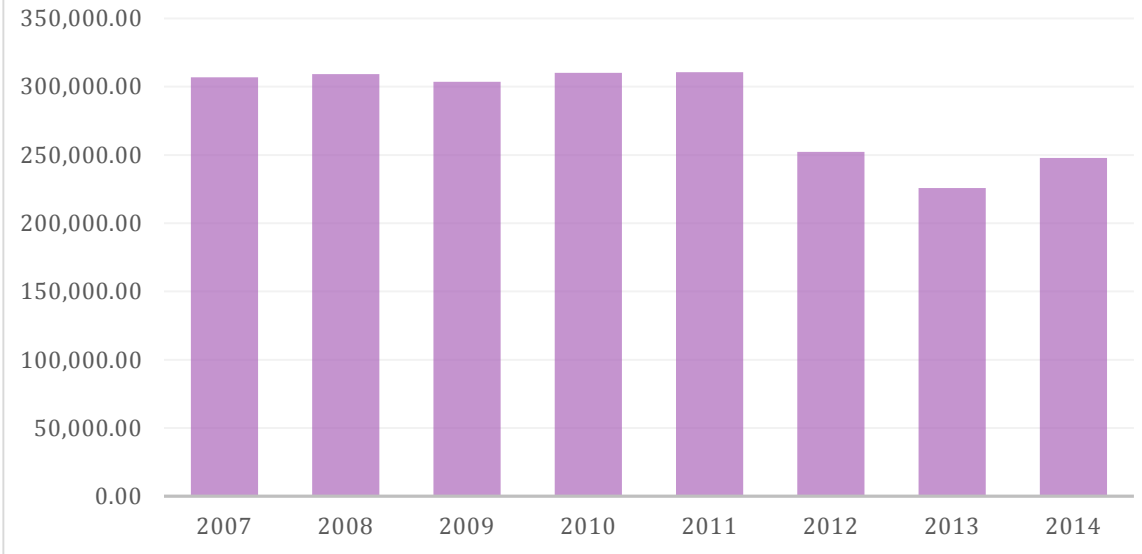
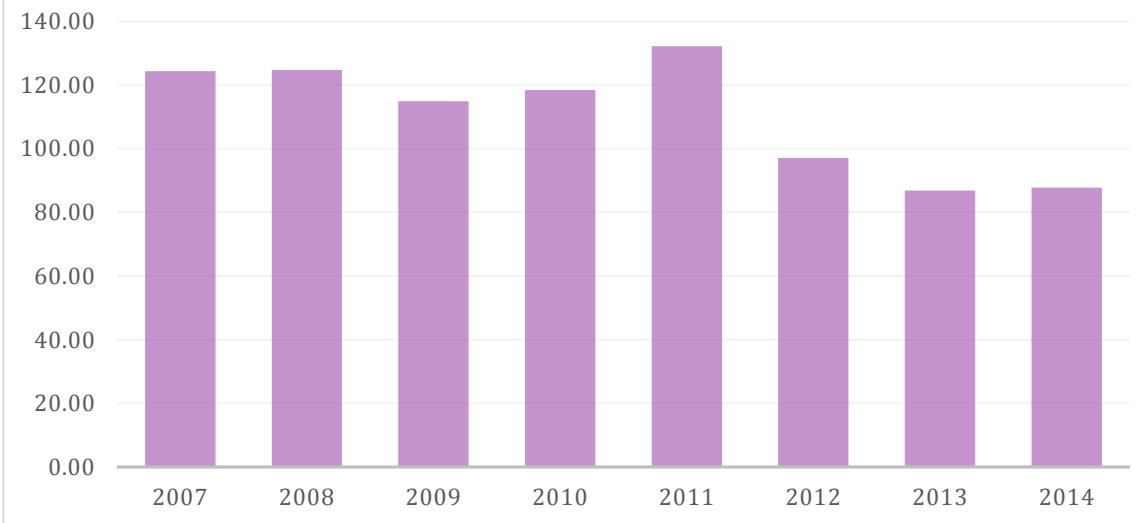
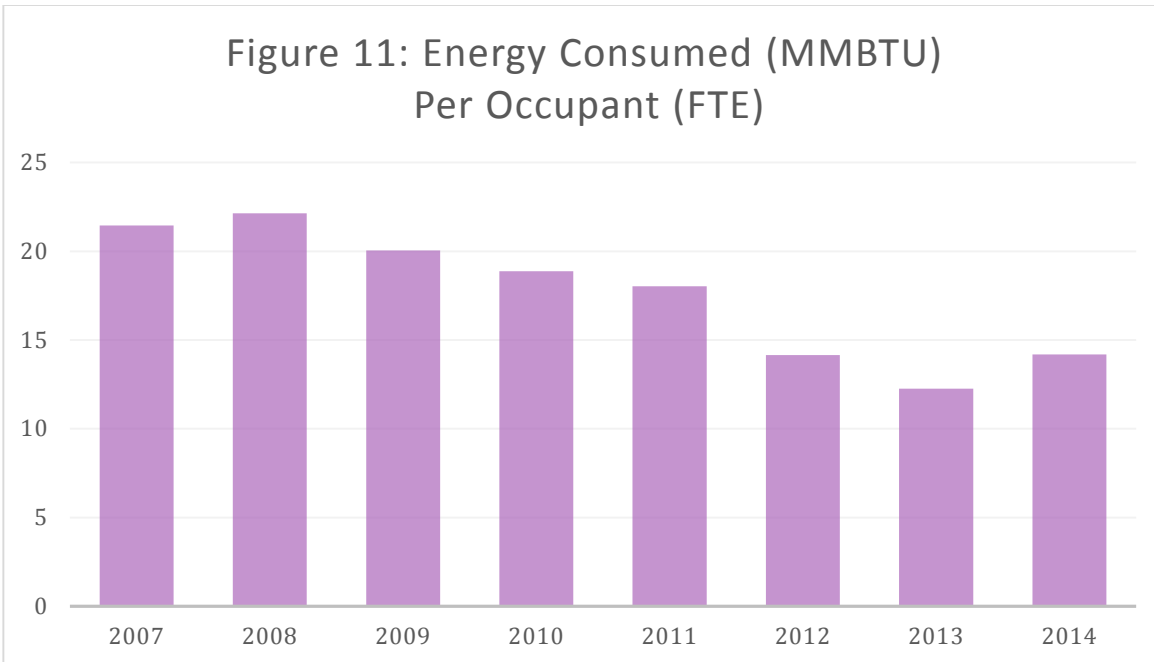


Figure 10: Energy Consumed Per Square Foot (kBTU/square foot or EUI)



ENERGY CONSUMPTION AND CONSERVATION



ENERGY EFFICIENCY PROJECT STATUS

In 2009, AMERESCO (an energy services company) completed an investment grade audit for WSU that identified a number of projects that, once completed, would reduce energy consumption, improve efficiency, or otherwise save natural resources. Construction on these projects began in July 2010. Table 5 below provides a list of the projects and their current status.

Table 5: Energy Conservation/Efficiency Project Status (12/1/2014)

Interior Lighting Upgrade - Campus Wide	Construction - 60% complete
DEC Chiller Replacement	Complete
Replace DHW Tanks with HX	Complete
Steam powered condensate pumps	Complete
Steam Energy Upgrades Phase 1	Complete
Steam Tunnel Support Repair	Complete
Replace Piping Insulation on AHUs	In progress
Boiler 2 Economizer	Complete
VFDs for Central Plant Cooling Towers	Complete
TE Convert Inlet Vanes to VFD	Awaiting In-House Labor
Davis 2 VAV Upgrade and IDEC	Complete
Recomission Sky Suites, ED, SS	Complete
Domestic Water Conservation	Construction - 20% complete
Solar Water Heating - GYM	Complete
Solar PV Davis - Phase I	Complete

ENERGY CONSUMPTION AND CONSERVATION

Solar PV Davis – Phase II	Complete
Solar PV Union	Complete
Weatherproofing - SS, LI, SL	Complete
Computer Controls	In Progress
Swimming Pool Cover	Complete
Electric Meters	Complete
Steam Meters	Complete
Chilled Water Meters	Complete
Irrigation Water Meters	Complete
High Efficiency Transformers	30% Complete
HV Switches	Out for Bid
Exterior Lighting	Complete
DEC Power Factor Correction	Complete
Building scheduling and commissioning	Ongoing
FM Building upgrade	Design
Campus Services VRF	Complete
Steam system improvements	Ongoing
Public Safety Solar	Complete
Building scheduling	Ongoing
Building mechanical and control upgrades	Ongoing
Large Scale Davis Solar Project	Design
Campus Services VRF	Complete
Wildcat Center RCx	Complete

RENEWABLE ENERGY

WSU has completed a number of renewable energy projects. (see Table 5 above). 40 KW of solar PV have been installed at the Davis Campus in two phases. At the Ogden Campus, a solar thermal array on the gym heats the pool and another solar thermal array on a new residence hall provides domestic hot water for the building. The Shepherd Union also has a 40 KW array and the new Public Safety building has an array of just over 20 KW.

In addition to on-campus production, over the past few years Weber State University has subscribed to the Rocky Mountain Power Blue Sky program which supports renewable energy power production. This past fiscal year, WSU purchased approximately 14.7% of the University's electrical power from renewable energy resources (wind power) through that program.

REAL-TIME ENERGY AND WATER DATA NOW AVAILABLE THROUGH LUCID DASHBOARD

In 2014, the Energy & Sustainability Office completed a project to install utility meters on every major campus building. The meters give information on building-level electricity, culinary water, chilled water, and steam consumption in real time. Solar energy production information is also

ENERGY CONSUMPTION AND CONSERVATION

being metered. Meter data can be viewed on WSU's new Lucid Dashboard located online at: www.buildingdashboard.net/weber. A link to the dashboard is on the Energy & Sustainability Office website: www.weber.edu/sustainability.

Data can also be viewed from the touchscreen kiosks located in the following buildings: Facilities Management, Campus Services, Wildcat Center (Stromberg Complex), Wildcat Village (all three residential life halls), Davis 2, and Davis 3. The Lucid Dashboard displays meter data that is collected every fifteen minutes so energy and water consumption spikes can be detected and resolved immediately. This new information will make it possible for Facilities Management to save the University thousands of dollars in avoided energy and water consumption each year.

ADDITIONAL SUSTAINABILITY PROJECTS & PROGRAMS

Additional Sustainability Projects & Programs

WATER CONSUMPTION AND CONSERVATION EFFORTS

Figure 12 depicts Weber State University's culinary water consumption over the past 9 years. In FY 2014, WSU consumed 55,907,900 gallons of culinary water, primarily for indoor water use (less than 5% of the Ogden Campus is irrigated using culinary water).

The spike in water consumption in 2008 is due to a water main break. In fiscal year 2010 WSU had a few smaller water main breaks that increased the University's water consumption above what would have been typical consumption. With the new water meters and Lucid Dashboard in place it is expected that water main breaks will be identified and resolved faster.

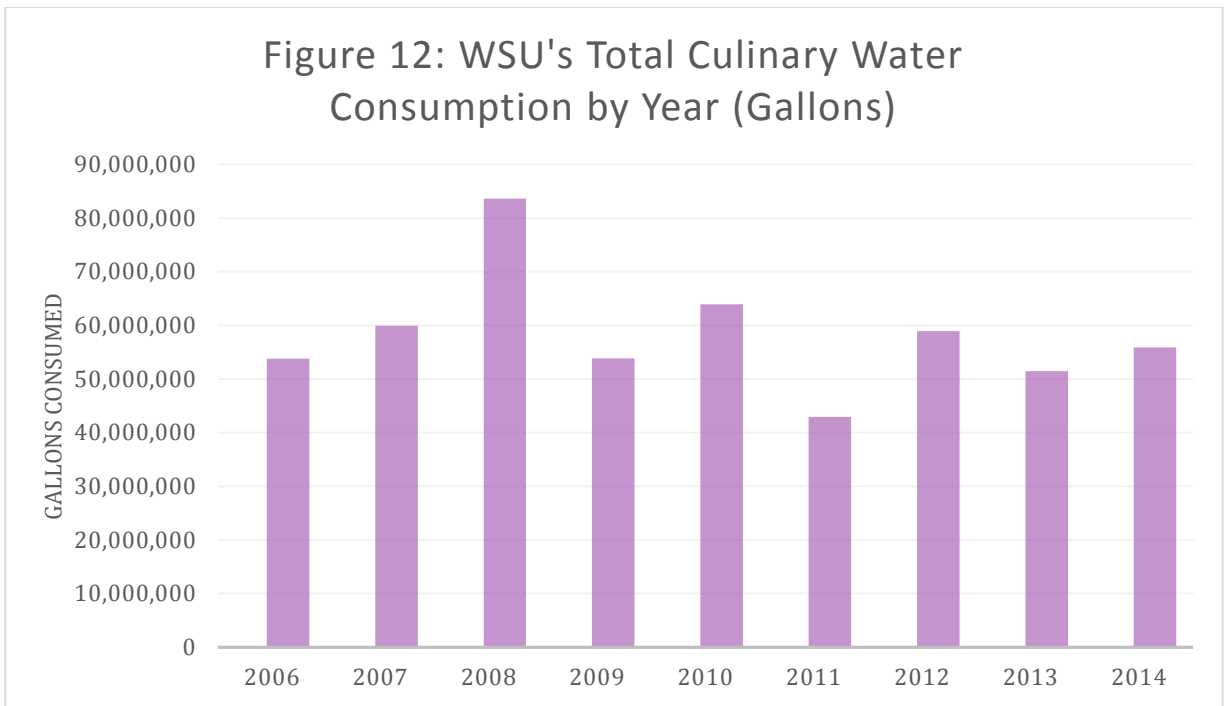
To help reduce culinary water consumption, over the past four years, the University has been installing low flow toilets, urinals, and faucets in several buildings. To date, the WSU Stewart Library, the Stromberg Complex, and the Davis 2 building have been upgraded with low flow fixtures. All newly constructed buildings, including the three new residence halls, the Davis 3 building and the Public Safety Building also have low flow fixtures throughout.

During the summer of 2012, WSU installed meters to measure non-potable water consumption. The data from these new meters show that the vast majority of water consumed by the University is non-potable water for landscaping. During FY 2014 WSU consumed 107,937,222 gallons (almost twice the total culinary consumption amount).

The Landscaping Department has been working to reduce WSU's non-potable consumption by xeriscaping more areas on campus, identifying and repairing leaks faster, and by irrigating only when necessary. On the Ogden Campus, WSU's irrigation system is tied to a weather station that shuts off irrigation controllers when it has rained at least 0.15 inches in an hour that day or when the wind is blowing at 25 MPH or more for at least 10 minutes. WSU utilizes Rain Master's Evolution software and is currently in the process of converting the weather station over to ET (Evapotranspiration) mode so that the University will only be irrigating to the exact level necessary.



Figure 12: WSU's Total Culinary Water Consumption by Year (Gallons)



WASTE PRODUCTION AND REDUCTION

Table 6 provides data on WSU's waste and recycling generation. The Energy & Sustainability Office was unfortunately unable to obtain data for FY 2014 due to lack of cooperation from the waste management provider. Starting with FY 2015, the Environmental Ambassadors will collect WSU's waste and recycling data to ensure that we have accurate and timely numbers.

As can be seen from Table 6, WSU's waste production numbers increased in FY 2013 while recycling amounts held steady. Trash audits conducted by the Energy & Sustainability Office have determined that over 75% of WSU's trash is recyclable. However, in FY 2013 WSU had a recycling rate of only 17.7%.

Low recycling rates and high recycling contamination rates continue to pose significant challenges for WSU. Therefore, the Environmental Ambassadors have continued to focus a significant amount of attention on recycling awareness and education and the Energy & Sustainability Office has continued to invest in additional recycling bins and signs.

Table 6: WSU's Waste and Recycling Generation

Year	Short Tons Waste	Short Tons Recycling
2007	845	No data available
2008	834	No data available
2009	833	No data available
2010	807	138
2011	799	196
2012	769	191
2013	901	194
2014	???*	???*

*WSU's waste hauler did not provide data for FY 2014. Data will be collected by the Environmental Ambassadors for all future reports.

The following on-going programs are additional ways WSU works to reduce waste production:

- a. Green waste composting: Landscape purchased a chipper in Fall 2009 and is using it to mulch and recycle green waste on both campuses. In FY 2014, the Landscape Department composted 125 short tons of green waste.
- b. Composting of post-consumer food waste: During the summer of 2012, a large composting bin (AKA the Earth Tub) was installed off of the loading dock of the Shepherd Union Building. The Shepherd Union staff purchased the tub, Facilities Management installed it, and Sodexo maintains and manages the composting process. Currently Sodexo is composting all pre-consumer food waste (i.e. kitchen preparation scraps). The final compost product has been used on WSU's grounds by the Landscaping Department and by the student community garden.
- c. Property Control recycling and salvage:
 - i. Materials processed through property control are made available to other departments or sold to the community. Sending items to the landfill is the last option.
 - ii. Electronics Recycling – Unwanted electronics are repurposed within the University, sold to the public, or ultimately recycled. Last year, Property Control sent 500 desktop computers, 60 CRT monitors, 30 LCD monitors, 12 copiers, and 60 servers to Metech for recycling. 70 printers however were sent to the landfill for disposal.

AIR QUALITY AND ALTERNATIVE TRANSPORTATION

Anti-Idling Policy Adopted

In 2013, WSU passed an anti-idling policy that prohibits more than two minutes of idling on campus. The anti-idling policy was passed in conjunction with a smoking ban in the core of the campus.

The anti-idling policy is designed to help improve air quality on campus and along the Wasatch Front. Air pollution presents a serious threat to human health along the Wasatch Front, which frequently has the worst air quality in the nation. Many people are unaware that reducing the time a vehicle spends idling during winter inversions can really make a difference in air quality. Eliminating idling will help reduce pollutants emitted into the atmosphere and can also incentivize students to exit their vehicles, remain more active, and contribute more to the quality of campus life.

Idling is defined as having the engine running while the vehicle is parked or stationary. Idling of vehicles for more than two minutes is prohibited at all WSU campuses. Exceptions are made for emergency vehicles, including police, fire, and ambulances, and for vehicles stopped in traffic or for traffic control devices. An unattended vehicle left idling is a clear violation of this policy and may be subject to university sanctions.


Bike Infrastructure and Access Improvements

Over the past 2 ½ years, the Environmental Ambassadors have used the Student Sustainability Fund money to significantly improve WSU's bike infrastructure. 25 new bike racks and 5 bike fix-it stations have been installed on the Ogden Campus. This current academic year, the Ambassadors have plans to install 5 new bike racks and a fix-it station at the Davis Campus and an additional bike rack at the West Center.

Significant efforts are currently underway to help improve bike access to WSU and throughout the City of Ogden. Jacob Cain, (Energy & Sustainability Office Manager) was recently invited to serve on the Ogden City Bike Master Plan committee. And WSU is gearing up to start its master plan revision process. The Energy & Sustainability Office will be heavily involved in both master planning processes to ensure that opportunities for improvements to all forms of alternative transit are analyzed and incorporated into the plans.

Public Transit

For several years now, WSU has offered all students and full-time staff and faculty the UTA Ed Pass which provides users with access to all UTA buses, Frontrunner, and TRAX lines. During



Fiscal years 2013 and 2014 this year-long pass was offered for only \$20. However, this academic year (FY 2015) the pass is being provided for free. It is hoped that ridership numbers will increase with the pass being free. Right now about 10.3% of WSU student trips, to and from campus, are made using UTA buses, Frontrunner, and TRAX. Only 4% of faculty trips and 2.35% of staff trips are made using public transit (data obtained from commuter surveyed administered by the Energy & Sustainability Office in the spring of 2014).

In both the commuter surveys (2011 and 2014) conducted by the Energy & Sustainability Office several respondents noted that they would be more willing to take public transit if they had a car available to them during the day to run errands or deal with potential emergencies. To address this concern, and also provide on-campus housing residents with the option of not owning a car, WSU launched the U-Haul Car Share program in 2012. WSU currently has two cars available to rent by the hour. One is located in the paid parking lot at the Shepherd Union building and another is located in front of the community center at the University Village housing complex. Rental rates and additional information can be found at:

<http://www.weber.edu/parking/CarSharing.html>


Alternative Fuel Vehicles

WSU is also working to encourage the use of alternatively fueled vehicles. In February 2012, via a partnership between WSU and Questar, construction on a new compressed natural gas (CNG) station was completed. Compressed natural gas is a cleaner burning fossil fuel that is currently much cheaper than traditional gas. The station lies just to the west of University Village on Old Post Road. This station, which is open to the public, is also used to fuel WSU's shuttle bus fleet.

In the fall of 2014, WSU's Parking Services agreed to offer students, faculty and staff a 20% parking pass rebate if their vehicle was deemed fuel efficient and low emission. The green vehicles rebate is available for vehicle models made in the year 2000 and newer that meet a Green Book Score of 45 or higher. The Green Book Score is a rating based on vehicle mpg and emission standards as set by the American Council for an Energy-Efficient Economy (ACEEE). More information about this program can be found at:

<http://www.weber.edu/financialservices/Parking.html>

The Energy & Sustainability Office, in partnership with Parking Services, is also currently determining the feasibility of installing electric vehicle charging stations on campus. Facilities Management purchased its first electric vehicle in 2014 and plans to replace more of its fleet with electric or hybrid vehicles. It is assumed that several faculty, students, and staff are purchasing



electric vehicles as the Energy & Sustainability Office has been receiving more and more requests to have charging stations on campus.

BEHAVIOR CHANGE AND EDUCATION

Green Department Program Launched

The Energy and Sustainability Office launched the Green Department Certification Program in fall of 2014. Green Departments help create a core group of leaders across campus with the common goal of implementing sustainability practices and helping the University meet its Climate Action Plan goals. The Energy and Sustainability Office works directly with the Department Green Team to achieve sustainability points and ultimately, department certification. There are four different levels of certification: bronze, silver, gold, and green. Departments earn money by pursuing sustainability actions listed on the checklist and maintaining their certification level.

Departments participating in the program include English, Housing, and Geography with several more departments coming on in 2015. The Green Department Program includes a series of prerequisites that must be met to participate as well as several credit categories including energy and climate, purchasing, waste, transportation, bonus points, and innovation points. Some of the credits that can be pursued include eliminating space heaters, having Energy Star rated equipment, reducing paper usage, and taking alternative or fuel-efficient transportation to campus.

More information on the Green Department Program including the checklist with all prerequisites and possible points can be found at <http://www.weber.edu/sustainability/GreenDept.html>

Environmental Ambassadors Update

The Environmental Ambassadors Club, launched in 2012, provides opportunities for students to participate in sustainability-related activities, volunteer work, and educational outreach. Shifting the current campus culture can be hard, but the Ambassadors are willing to embrace the challenge.

The Environmental Ambassadors have been busy with many different projects and volunteer work this last school year. Fall 2013 kicked off with a Green Move-In at the Residence Halls. Cardboard boxes and other recyclable materials were collected as students moved in and started to get settled in their new rooms. We had volunteers throughout the buildings educating students about recycling and how they can help. Recycling was also promoted at multiple Green-the-Stadium events including football games at the Stewart Stadium for football games and basketball games at the Dee Events Center. Spring 2014 ended with a Green Move-Out with all items being



donated to the non-profit group Big Brother Big Sisters of Utah and non-perishable food items going to the WSU Weber Cares Food Pantry.


Being outdoors and volunteering is a very important aspect of the Environmental Ambassadors. When school started again in 2014, a major goal was to host volunteer events and activities outside. Trees were planted between the Stewart Library and the Engineering Technology building along the central stairs and all along the pathway of the Marriott Health Building. Indigenous and drought-tolerant plants were also planted in the pavilion between Technology Education and Engineering Technology for the club's first xeriscaping project. The Ambassadors also partnered with the Ogden Nature Center for an Invasive Species Pull-A-Thon and adopted a trail along Stromberg Canyon through the Ogden Trails Network.

In an effort to bring fresh, local produce and unique artisan crafts from farms and businesses in and around Ogden, the very first Weber State Farmer's Market was held monthly from September through November 2014 in the Shepherd Union Atrium. It was a huge success with many vendors selling everything from organic vegetables and local honey to handmade necklaces and headbands.

The Student Fee Recommendations Committee (SFRC) allocated \$9,800 to the Environmental Ambassadors, along with the Energy and Sustainability Office covering \$2,400, for a total amount of \$12,200 that helped fund many different sustainability projects in the 2013-2014 fiscal year. Six new water bottle refill stations were put in at the Education Building, Student Services Center, Social Science, Kimball Arts, and Allied Health. Three bicycle fix-it stations were also put in at University Village, Shepherd Union, and the Swenson Gym. The combined funding also helped put in more bicycle racks at University Village, Engineering Technology, Dee Events Center, and the WSU Davis Campus.

NEW GREEN CONSTRUCTION

- A new residential housing complex, comprised of three buildings, was completed 2013 and is currently occupied. One of the residence halls has received its LEED silver certification and the two other residence halls are expected to receive their silver certification in the next couple of months. The new residence halls have been designed to be much more energy efficient and sustainable, including the use of water source heat pumps, solar hot water heating, and state of the art control and energy management systems.
- Construction of the new Davis 3 building was completed in 2013. This building also recently received its LEED silver certification.

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- The new Public Safety building was completed during the summer of 2014. While LEED certification for this smaller building will not be pursued it is currently the most sustainable building on campus. Similar to the other LEED certified buildings constructed, this building was constructed using materials containing few or no volatile organic compounds (VOCs), which means no off-gassing and a much healthier environment. The building boasts all LED lighting with motion sensors to ensure that lights are not left on when spaces are vacated. Energy-efficient roof insulation, wall insulation and windows help keep energy bills down. Topping the roof is a white membrane, or “cool roof,” which reflects the sun’s rays and lowers cooling costs in the summer.

The Public Safety building is the first newly constructed all-electric building on campus. Spaces are heated and cooled by a variable refrigerant flow (VRF) mechanical system. This energy-efficient system permits occupants to control the temperature of their individual spaces. The 20 KW solar PV array on the roof has supplied about 40% of the building’s energy needs since it opened in August. Over the next year, the Energy & Sustainability Office will monitor the building’s energy use to determine how much more solar power may be needed to make it the first carbon-neutral building on campus.

CONTACT INFORMATION

Contact Information

Please feel free to contact us with any questions you might have! Additional information can be found at: www.weber.edu/sustainability

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