WEBER STATE UNIVERSITY CLIMATE ACTION PLAN

PROGRESS REPORT FOR FY 2017

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.

Prepared by: Jennifer Bodine, WSU Sustainability Manager
June 30, 2018

LEADERSHIP STATEMENT

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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.

Mark Halverson

Associate Vice President for Facilities & Campus Planning

AWARDS AND ACCOMPLISHMENTS

Awards and Accomplishments

- In May of 2017, Weber State University was given the Outstanding Leadership in Energy Efficiency and Conservation award from the Utah Association of Energy Users.

- For the sixth year in a row, Princeton Review selected WSU as one of 375 schools in the U.S. "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 375 Green Colleges: 2017 Edition" please visit: http://www.princetonreview.com/green-guide.aspx

  Weber State University was officially listed as one of the 2017 "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. Sierra Club's final rankings can be viewed at: https://www.sierraclub.org/sierra/cool-schools-2017/cool-schools-2017-full-ranking

- The Arbor Day Foundation again named Weber State University a Tree Campus USA in 2017 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

- Additional sustainability-related accomplishments and news for the fiscal year can be found in the Weber Green newsletter available here: http://www.weber.edu/sustainability

GREENHOUSE GAS (GHG) EMISSIONS

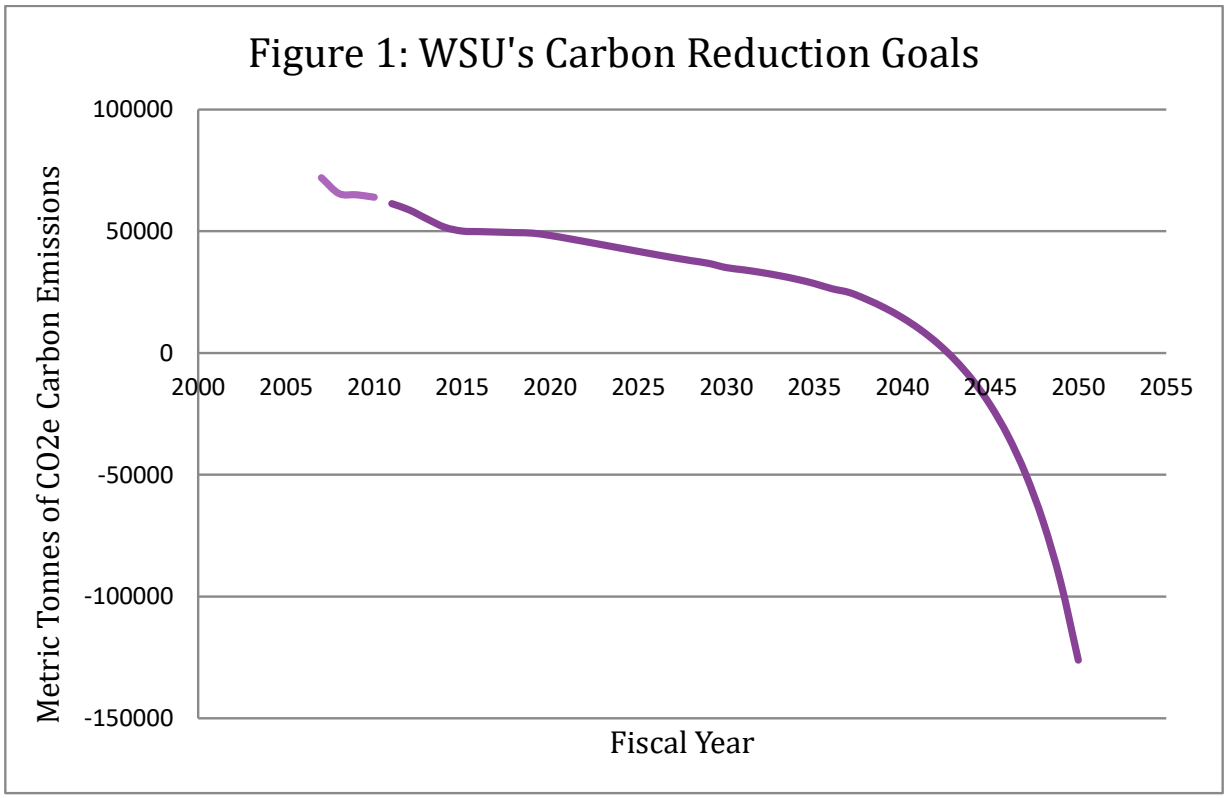
Greenhouse Gas (GHG) Emissions

NOTE REGARDING CARBON EMISSIONS CALCULATIONS

This report contains updated emissions numbers using the Sustainability Indicator Management & Analysis Platform (SIMAP). SIMAP, which is being hosted and managed by the Sustainability Institute at the University of New Hampshire, is the replacement for the Clean Air-Cool Planet Campus Carbon Calculator. With each software update, emissions factors are updated and therefore, there will be some discrepancies when comparing the numbers in this report to the reports of previous fiscal years. For more information about SIMAP please visit: https://unhsimap.org/home

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 depicts WSU's intermediate emissions reduction targets. Per this model, WSU should have reduced its total emissions by 31% 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.

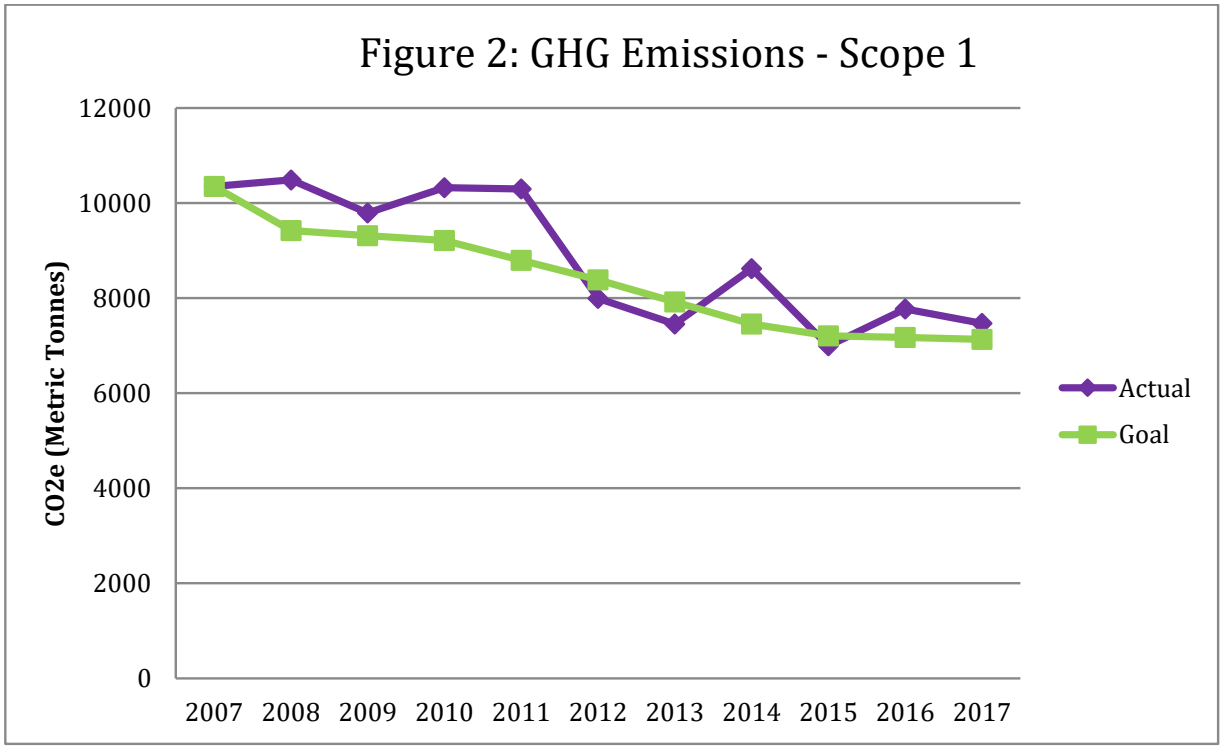


GREENHOUSE GAS (GHG) EMISSIONS

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, compressed natural gas (CNG), and electricity. Emissions associated with fertilizer application and refrigerant leaks are also included.

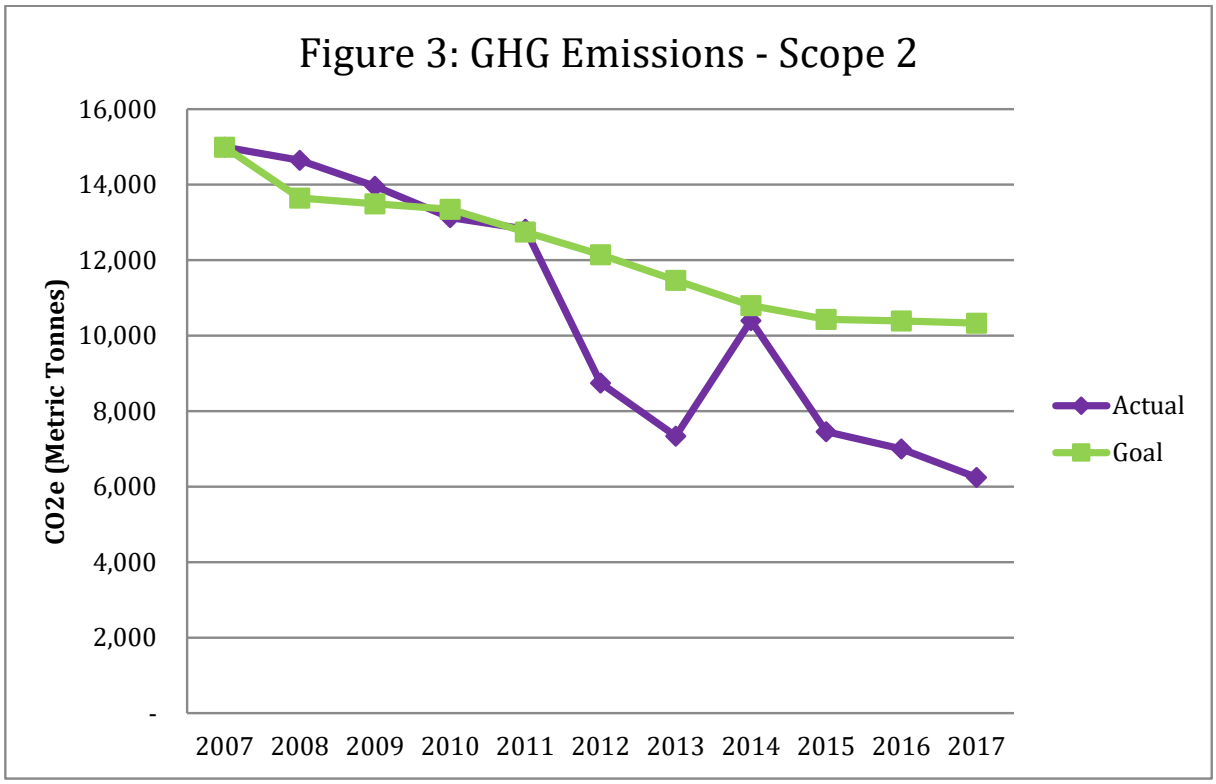
As can be seen from Figure 2 below, WSU has reduced its Scope 1 emissions by 28%. Actual numbers are slightly lower than the goal due to campus construction. After completing Tracy Hall, the Science Lab building was scheduled to be demolished but WSU received funding to renovate the Social Sciences building. Therefore the College of Behavioral & Social Sciences has been temporarily housed in the old Science Lab building while the Social Science building (now Lindquist Hall) is renovated. Science Lab will be demolished in the upcoming year.



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. WSU surpassed its emissions reduction goal by over 25% (emissions have been reduced by over 58%).



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.

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, the second was conducted in the spring of 2014, and the most recent survey was conducted in fall of 2017. In all cases, 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

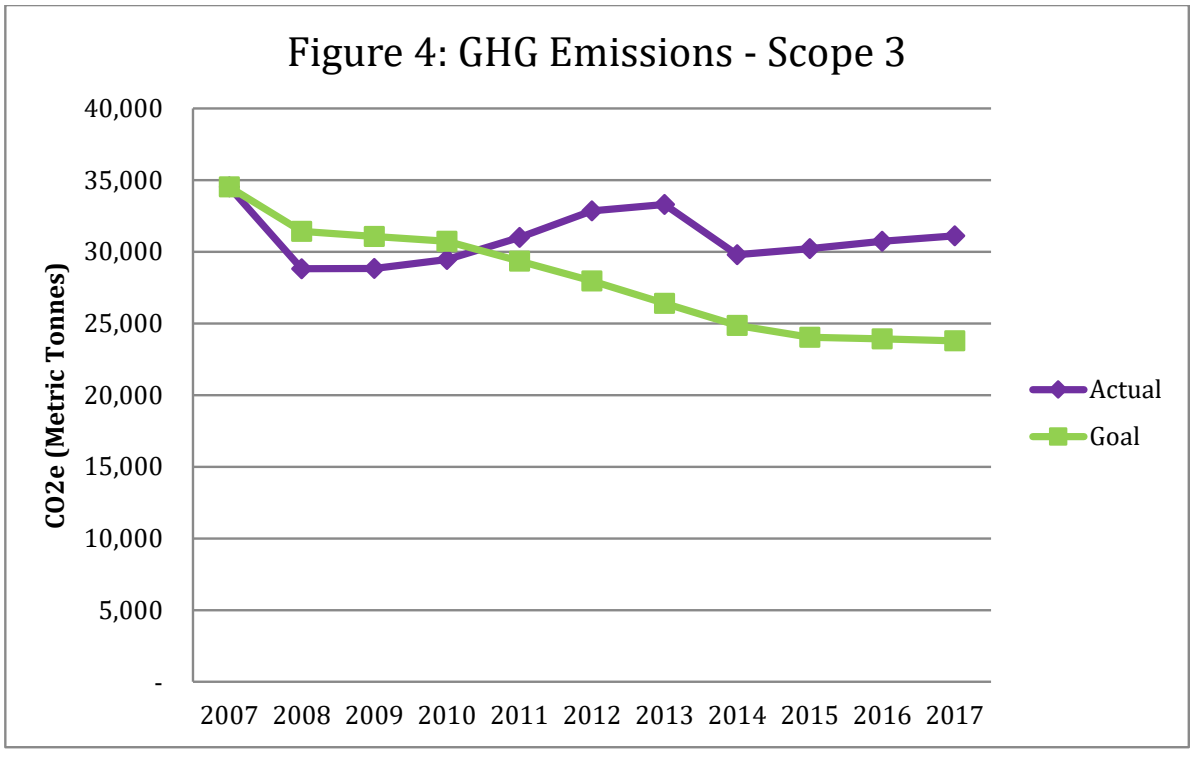
GREENHOUSE GAS (GHG) EMISSIONS

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 (CO_2e metric tonnes)

Year	Students	Staff/Faculty
2007	20,957	5,383
2008	19,876	5,657
2009	20,093	5,624
2010	21,343	5,529
2011	22,436	5,546
2012	22,948	6,052
2013	23,195	5,935
2014	20,816	4,540
2015	20,876	4,706
2016	20,780	5,054
2017	22,653	4,266

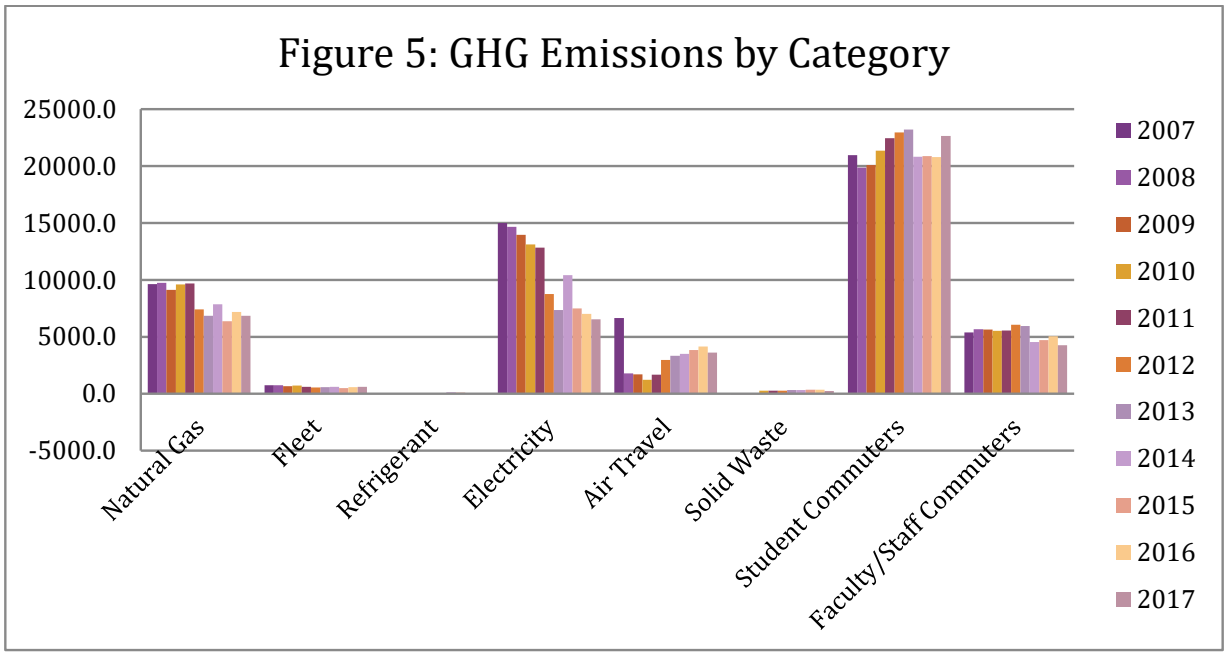
Total scope 3 emissions are depicted in Figure 4. As can be seen from the graph below, Scope 3 emissions have increased again this fiscal year which can be attributed to an increase in the student population.



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.

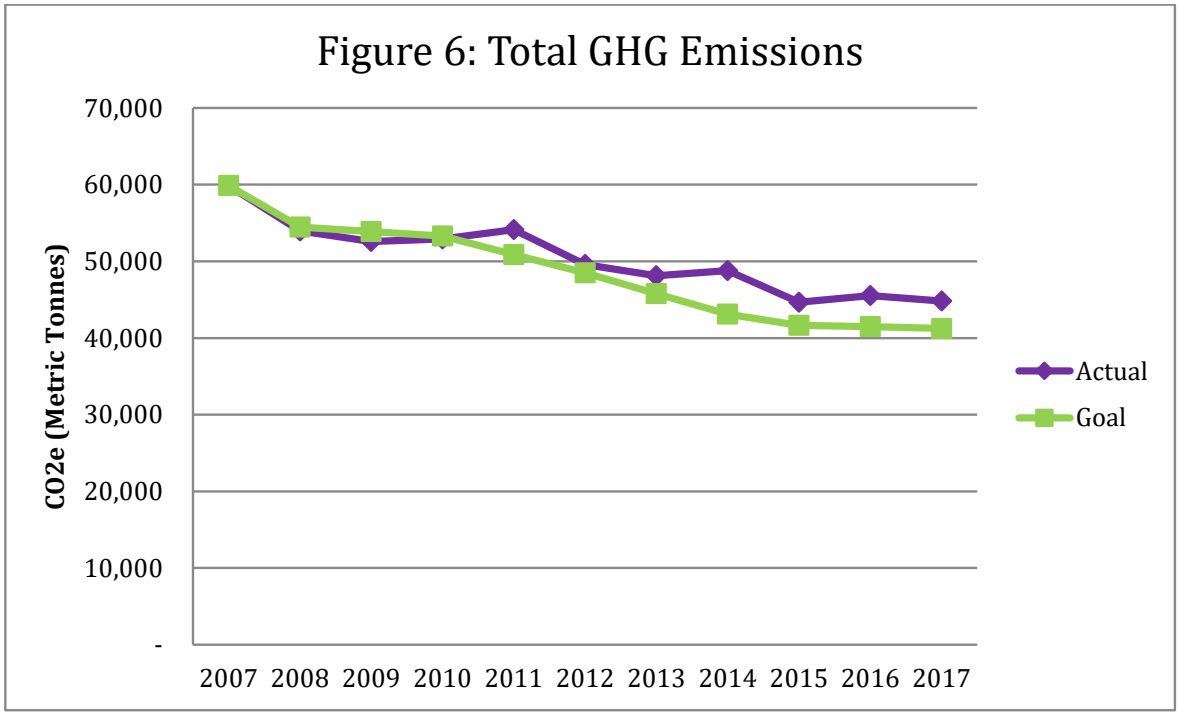


- The change in air travel from 2007 to 2008 is due to decreased air travel and due to a change in how the data is collected
- Solid waste emissions increased in Fiscal Year 2010 not because overall waste generation increased, but because the University decided to send the waste to a new landfill that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

Figure 6 shows WSU's total emissions reduction progress. While WSU is not currently meeting its goal of 31% reduction this fiscal year, significant progress has been made. Total emissions have been reduced by 25% 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, traditionally-fueled vehicle, it is given that emissions from University commuters will remain high and will rise as population increases.

GREENHOUSE GAS (GHG) EMISSIONS



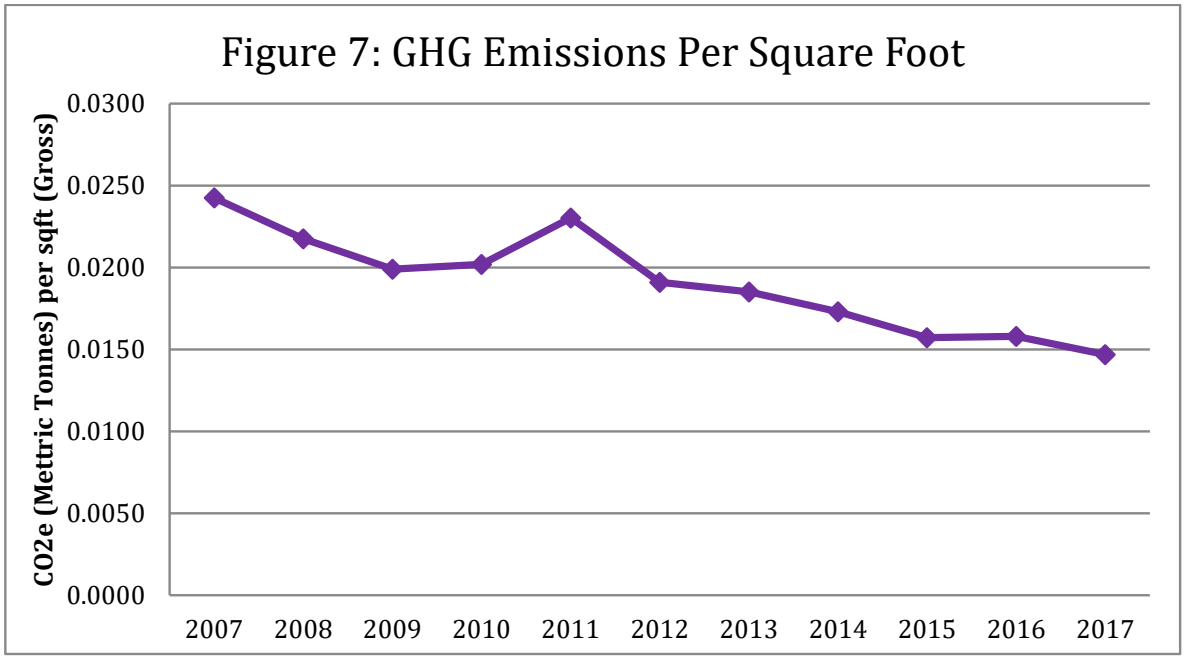
GHG EMISSIONS PER BUILDING SQUARE FOOT

As can be seen in Table 2 below, WSU added space in FY 2017 with the completion of Tracy Hall. Figure 7 depicts emissions per square foot and shows a decrease which can be attributed to the completion of multiple energy efficiency projects and 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
2015	2,844,289
2016	2,883,180

2017	3,072,262



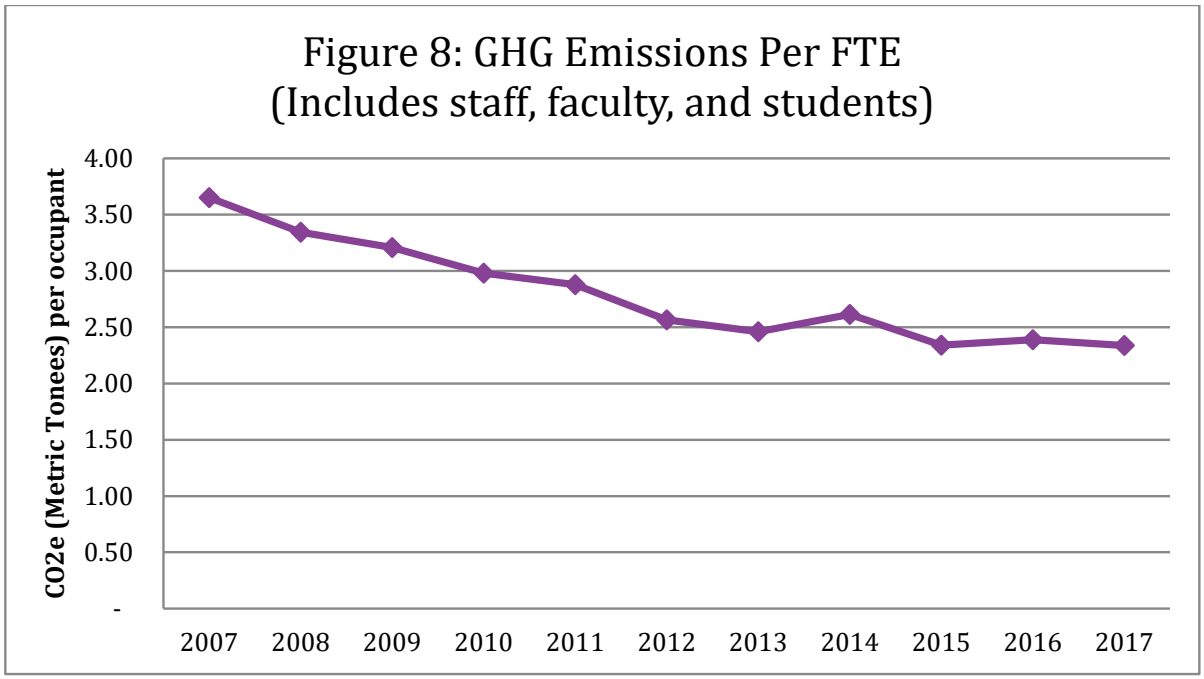
GHG EMISSIONS PER FULL TIME EQUIVALENT (FTE)

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

Table 3: WSU Population by Year (in FTE)

Fiscal Year	FTE Students, Faculty, and Staff
2007	19,302
2008	19,074
2009	19,085
2010	18,692
2011	19,565
2012	19,343
2013	18,793
2014	17,745
2015	16,400
2016	16,129
2017	16,399

GREENHOUSE GAS (GHG) EMISSIONS



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

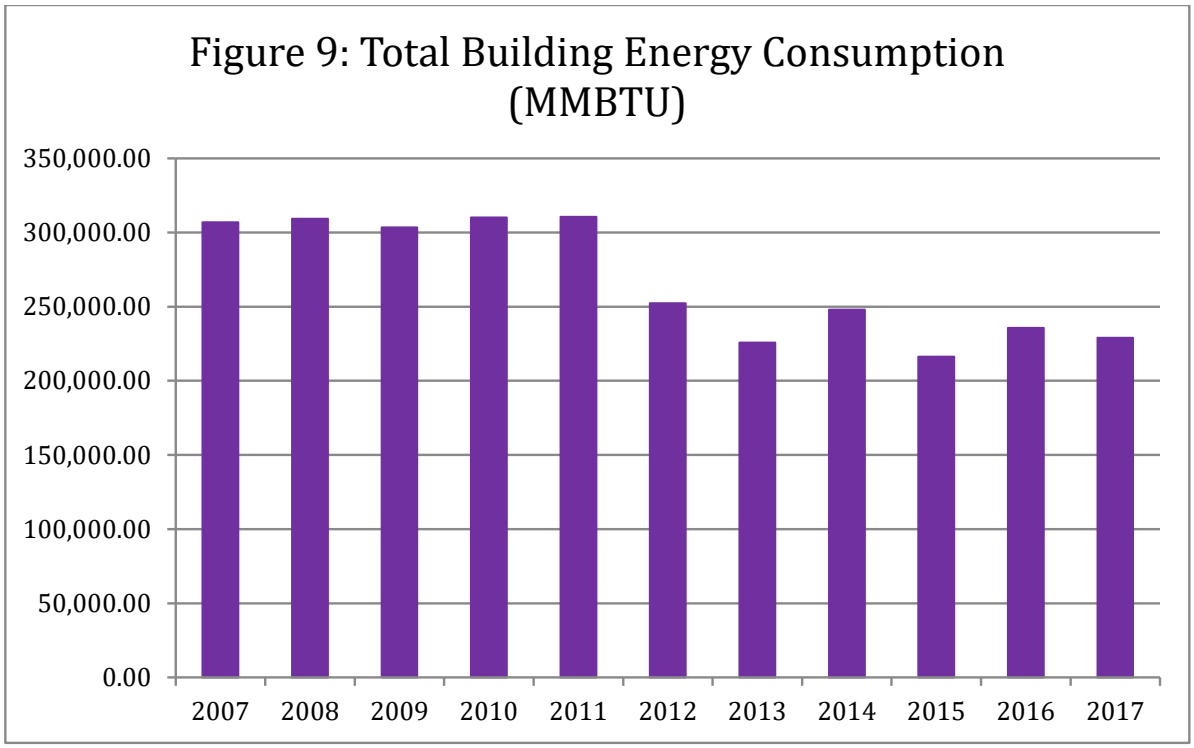
Table 4 depicts WSU's electricity and natural gas consumption figures. From the baseline year of 2007, WSU has reduced its electricity consumption by 26% and its natural gas consumption by over 29% thanks to the completion of several key energy efficiency and renewable energy projects. Increases in electricity and natural gas consumption in FY 2014 can be attributed to the addition of over 200,000 square feet. The increase in both electricity and natural gas consumption in FY 2016 are due to Tracy Hall's construction.

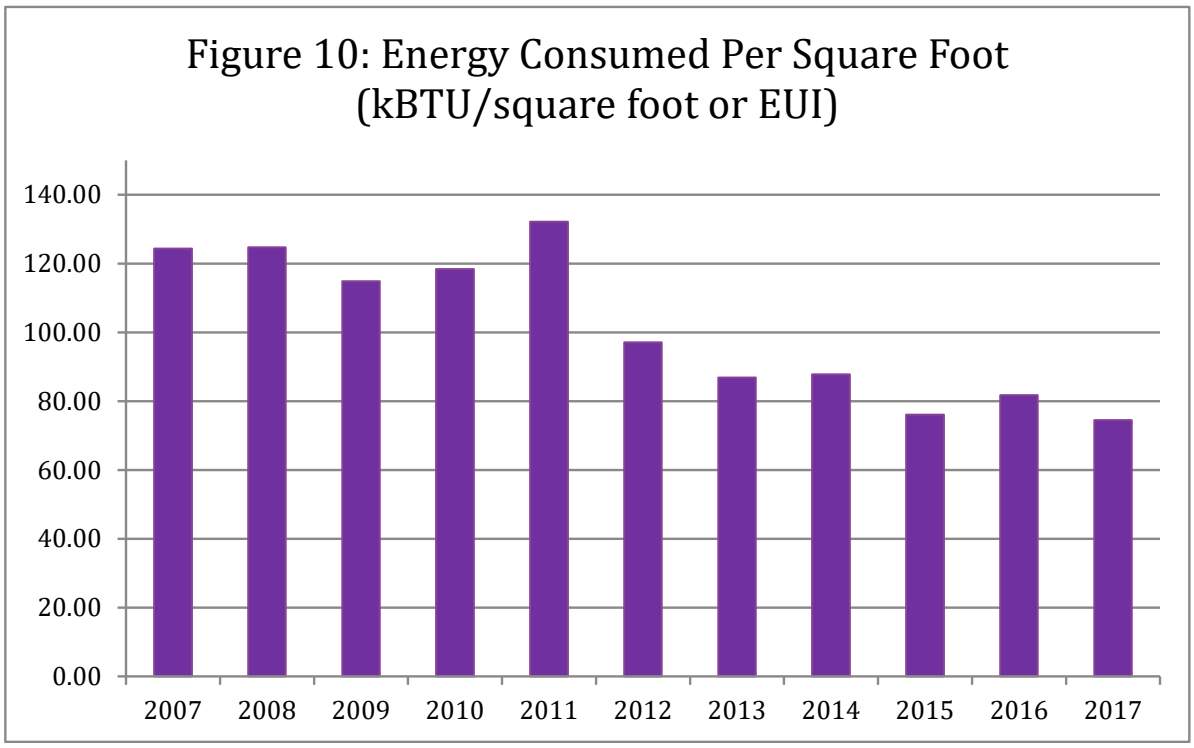
Table 4: WSU Building Energy Consumption

Fiscal Year	Electricity (kwh)	Natural Gas (MMBTU)
2007	39,811,520	179,904
2008	38,927,520	181,878
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
2015	28,310,113	119,700
2016	29,601,049	134,719
2017	29,589,090	127,973

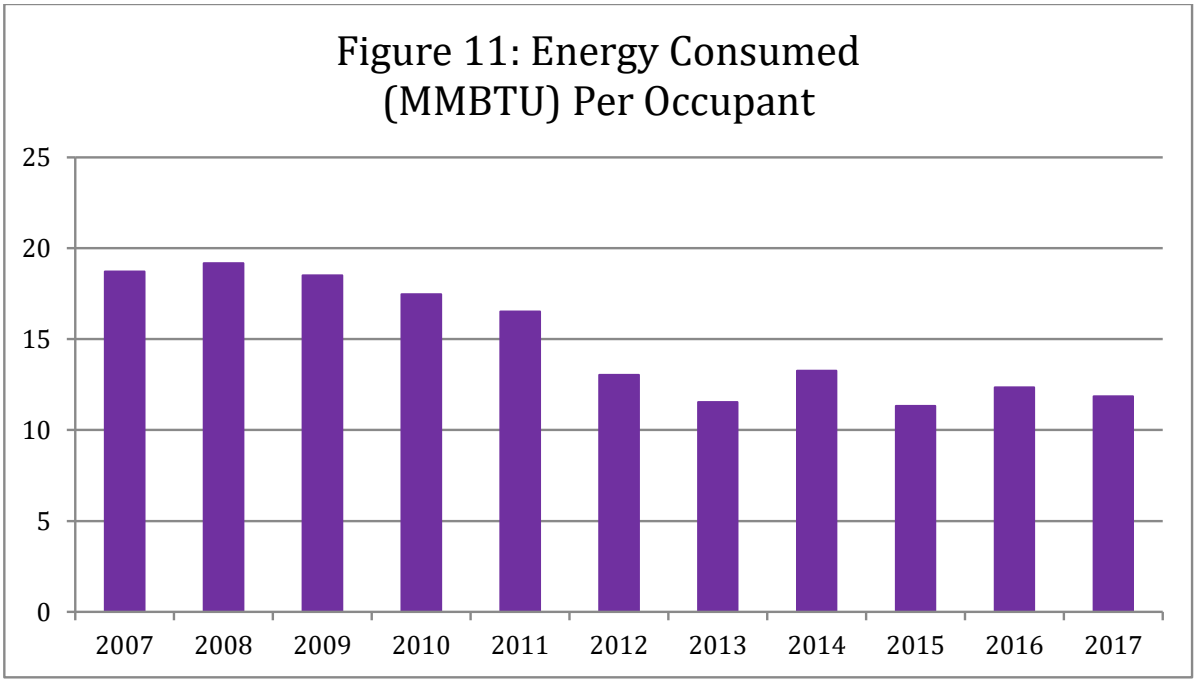
Since fiscal year 2007 WSU has reduced its total building energy consumption by 25% (see Figure 9). WSU's energy consumption per square foot dropped by 40% and WSU's energy consumption per occupant was reduced by about 37% since fiscal year 2007 (see Figures 10 & 11).

ENERGY CONSUMPTION AND CONSERVATION





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 (6/30/2018)

Interior Lighting Upgrade - Campus Wide	Construction - 75% 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

ENERGY CONSUMPTION AND CONSERVATION

Domestic Water Conservation	Construction - 20% complete
Solar Water Heating – GYM	Complete
Solar PV Davis – Phase I	Complete
Solar PV Davis – Phase II	Complete
Solar PV Union	Complete
Solar PV Facilities Management	Complete
Solar PV Public Safety	Complete
Solar PV Davis 2 Megawatt	Complete
Solar covered parking – Receiving & Distribution	Design
Solar covered parking – W10	Design
Computer Controls	In Progress
Weatherproofing - SS, LI, SL	Complete
Swimming Pool Cover	Complete
Electric Meters	Complete
Steam Meters	Complete
Chilled Water Meters	Complete
Irrigation Water Meters	Complete
High Efficiency Transformers	30% Complete
Street light LED upgrade	50% complete
HV Switches	Complete
Exterior Lighting	Complete
Walkway light LED	Complete
DEC Power Factor Correction	Complete
Ground source Field (Phase I)	Complete
Ground source Field (Phase II)	Complete
Building scheduling and commissioning	Ongoing
FM Building upgrade	In progress
Campus Services VRF	Complete
Center for Continuing Education VRF	Complete
D13 VRF	Complete
Academic Athletic Center VRF	Complete
Allied Health Phase I VRF	Complete
Steam system improvements	Ongoing
Building scheduling	Ongoing
Building mechanical and control upgrades	Ongoing
Campus Services VRF	Complete
Wildcat Center RCx	Complete

Miller Administration Renovation	Complete
Dee Events Center Glazing	Complete
Wattis Renovation	Complete
Library Renovation Walkway LED Upgrade Eccles Theater LED upgrade	Complete Complete Complete
Union building LED upgrade	Complete
Chiller plant reprogramming	In progress
Parking lot light LED upgrade	In progress

RENEWABLE ENERGY

WSU has completed a number of renewable energy projects. (see Table 5 above). 40 KW of solar PV have been installed on the Davis D2 building 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 has a 35 KW array, the Facilities Management building has a 71 KW array, and the Public Safety building has an array of just over 20 KW.

WSU's largest solar array, a 1.8 megawatt system, was installed on the Davis Campus during the summer of 2016. At its construction, the array was the largest public array in the State. This array has significantly reduced the University's carbon footprint by supplying the Davis Campus with all of it electricity renewably.

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 16% of the University's electrical power from renewable energy resources (wind power) through that program. 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 several years. This year, WSU consumed 75,098,000 gallons of culinary water. The spike in FY 2015 is due to a couple of bad water line breaks, Tracy Hall construction, and the Landscape Department's decision to use culinary water on the practice fields to reduce the introduction of weeds. Construction was ongoing in FY 2016 and FY 2017 and landscaping continued to use culinary water on the practice fields.

The spike in water consumption in 2008 is due to a large 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.

To help reduce culinary water consumption, over the past six 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 and renovated buildings, including the three new residence halls, the Davis 3 building, the Public Safety Building, Miller Administration, Wattis Business Building, the Library, and Tracy Hall 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 more than half of the water consumed by the University is non-potable water for landscaping. During the 2017 irrigation season (April 15 – October 15, 2017) WSU consumed 89,741,451 gallons.

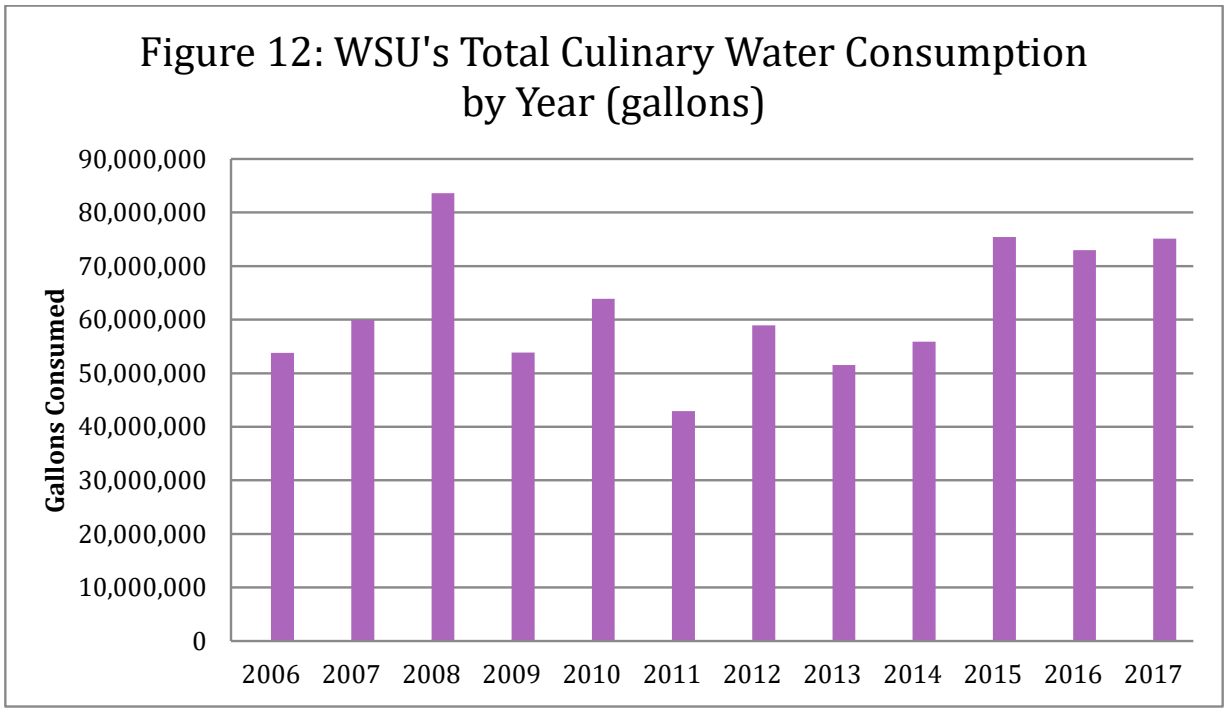
The Landscaping Department has been working to reduce WSU's non-potable consumption by xeriscaping more areas on campus, identifying and repairing leaks faster, and by irrigating only when necessary. The Energy & Sustainability Office also hired a full time water conservation specialist at the end of FY 2016 to track water consumption, program the smart irrigation system (Rain Master), and identify/implement conservation projects.

One of these projects is the Water Warrior Challenge program. The Water Warrior Challenge is an incentive based program, run by the water conservation specialist and working with the landscape area managers as the participants. The program is designed to get Distribution

uniformity, or DU data from WSU's irrigation zones to provide a way to improve the DU in each area.

Distribution uniformity measures how evenly water is applied to a landscape area. The lower the DU the more water is needed to maintain the landscaping. Each of the twelve landscape area managers, and the water conservation specialist, chose an area that needs improvement. After an area is chosen a water audit is performed. A water audit among other things provides the DU of the zone. After the water audit is performed, a plan to improve the DU is created and executed.

After the improvement has been implemented, a second water audit is performed and the data is compared. The landscaper that has the most DU percentage improvement wins the water warrior challenge and a large trophy. This program has been successful in replacing over two hundred outdated and inefficient irrigation spray heads with high efficiency rotator sprinkler heads a year. The program has also enabled landscape to look at each irrigation zone individually to implement a custom plan to perform the best improvements possible or that area. The program also provides friendly competition and an avenue for the landscapers to be excited about improving the DU of their areas.



ADDITIONAL SUSTAINABILITY PROJECTS & PROGRAMS

WASTE PRODUCTION AND REDUCTION

Table 6 provides data on WSU's waste and recycling generation. In FY 2014 WSU switched waste hauling companies from Waste Management to Republic Services. As a result, data was not provided by Waste Management in 2014. For FY 2015 and FY 2016, the new waste hauler, Republic Services, provided the data. During those years, Republic Services assumed that all dumpsters and totes were full at each pick-up so those numbers represent the largest amount of trash and recycling the University could have produced each year. In FY 2017, The Environmental Ambassadors conducted waste and recycling audits each semester to provide a closer approximation of the amount of waste produced.

Table 6: WSU's Waste and Recycling Generation

Year	Short Tons Waste	Short Tons Co-Mingled Recycling	Short Tons Glass
2007	845	No data available	N/A
2008	834	No data available	N/A
2009	833	No data available	N/A
2010	807	138	N/A
2011	799	196	N/A
2012	769	191	N/A
2013	901	194	N/A
2014	???*	???*	N/A
2015	1,009	262	N/A
2016	1,009	262	8.93
2017	649	262	8.84

*WSU's waste hauler did not provide data for FY 2014.

Weber State University is working to reduce trash production and increase recycling rates via the following on-going programs:

a. The WSU Environmental Ambassadors focus a significant amount of attention on recycling awareness and education. See the Environmental Ambassadors Update below for further information.

b. Green waste composting: In FY 2017, the Landscape Department composted 85 short tons of green waste. This green waste is composted at the Wasatch Integrated Waste Management compost station in Davis County.

c. 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. In FY 2017, the Earth Tub produced approximately 3 short tons of compost.

d. 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 recycled 3,430 pounds of desktop computers, CRT monitors, LCD monitors, copiers, and servers through Metech.

e. Tiny Trash Program: Tracy Hall and the Shepherd Union were the first buildings on campus to fully implement the Tiny Trash Program. Instead of receiving the regular office trash can, each office received a small trash can that attaches to the inside or outside of the office recycling bin. The tiny trash can serves as a constant reminder that most of the waste produced on campus can be recycled. It also saves liner waste since no liners are used and it saves office space.

   Many of WSU's participating Green Departments have also voluntarily made the transition. This program will be tracked to see if recycling rates are increased through its implementation.

AIR QUALITY AND ALTERNATIVE TRANSPORTATION

Electric Vehicles

To date, WSU has three Chevy Volts and one Chevy Bolt in its Fleet. Electric vehicle charging stations have also been installed in three locations: Facilities Management, Public Safety, and Tracy Hall. EV charging stations are also in the process of being installed with the new Health Sciences building (IPE) and the new Lindquist Hall.

The 2017 commuter survey revealed that 67% of faculty and staff and 48% of students would like to see more EV charging stations on campus. The Office of Energy & Sustainability will be working with Parking Services to develop an EV charging station master plan for campus to ensure that we are meeting our campus community's needs.

ADDITIONAL SUSTAINABILITY PROJECTS & PROGRAMS

In addition to cars, WSU received a grant in 2017 to convert one of its existing diesel shuttle buses to an all-electric vehicle. That shuttle bus was completed and delivered in June, 2018 and will serve as the peak operating shuttle bus between the Dee Events Center and campus starting August, 2018.

WSU is also working to transition landscape vehicles and equipment over to all-electric. In FY 2017, several blowers were replaced with electric blowers and one of the landscape vehicles was replaced with an electric Ranger.

Air Quality Monitoring

In partnership with the Honors Program and Environmental Ambassadors, WSU installed eight Purple Air monitors on its campuses. Six are located on the Ogden Campus, one on the Davis Campus, and one is located at the University Village Housing complex. In addition to providing information about local air quality for the campus community and general public, these monitors will be used by students for air quality research purposes. This real-time data can be viewed at: https://www.purpleair.com/

Cut Pollution – Mow Electric Program

Weber State University's (WSU) sustainability offices, in partnership with the Weber-Morgan and Davis County Health Departments, launched the Cut Pollution – Mow Electric program to promote cleaner air and healthier lives in Utah. Between February and April of 2018, the program engaged over 837 households in exchanging their old gas-powered mowers for clean electric mowers. These exchanges resulted in reducing air pollutants by 4 million vehicle miles traveled, in Utah's EPA non-attainment zones.

Running a gas-powered mower for an hour is equivalent to driving a passenger car for 160 miles, with the operator being within feet of the exhaust portal. Additionally, the mowing season closely aligns with the ozone pollution season in Utah. Mow Electric program helped Utahns improve local air quality by going electric.

Program partners educated community members about air pollution and provided a means of action through the Cut Pollution - Mow Electric program's website (www.weber.edu/mowelectric), in statewide media, and at 4 community workshops.

Over 1,600 individuals entered the Mow Electric lottery. The program was run on a lottery basis as there was more interest than available mowers. Lottery winners could upgrade their operable gas-powered mowers (along with a $100 exchange fee) for a new Kobalt 40-volt cordless electric mower, which was typically priced at $329. To ensure folks from all income levels were included

in the program, waivers of the $100 fee were provided for low-income residents, and extensive efforts were made to reach out to this population.

Utahns who lived in areas that regularly experience poor air quality (EPA air-quality non-attainment areas) were eligible to participate. A zip code look-up on the website helped potential participants determine eligibility.

The program had wide support across many sectors. Funding for the equipment was supplied from a Utah Department of Environmental Quality (DEQ) grant, a Utah Clean Air Partnership (UCAIR) grant, WSU, Weber-Morgan Health, Davis County Health, an anonymous donor, and the participants themselves (via the $100 fee). In addition, WSU and the Health Departments worked nearly a thousand hours on logistics planning, website creation, marketing, program workshops, lottery administration, volunteer coordination, and the exchange day.

Local and national businesses supported the program. Lowe's assisted with workshops, volunteered the day of the event, and provided countless hours of coordination. Bloom's Recyclers hauled, recycled, and provided destruction documentation for over 840 (some people brought more than one old mower) gas-powered mowers at no charge. Rocky Mountain Power promoted the event to their employees and provided volunteers for exchange. Grounds for Coffee and Natural Grocers provided coffee, hot chocolate and snacks for over 100 volunteers.

The exchange day was powered by 102 volunteers from businesses, program partners, community members, as well as by about a dozen Davis County inmates who cheerfully helped unload hundreds of mowers. On April 21, 433 mowers were exchanged at the WSU Davis campus and 404 mowers were exchanged at the WSU Ogden campus.

Results

- Thousands were educated about the benefits of electric mowers
- 1,600 + individuals applied to upgrade to electric mowers
- 834 households upgraded to electric mowers
- 840 + gas-mowers decommissioned
- 57 low income families received free mowers (100% of those who applied)
- Over 100,000 lbs of air pollution reduced annually
- 9 organizations collaborated to make the exchange day possible
- 102 volunteers powered the exchange day

Emissions Reduced/Program Results

Per the Utah DEQ, each hour spent mowing produces emissions equivalent to 160 vehicle miles traveled. The average homeowner mows their lawn about 30 times per year and spends about an

hour each time mowing. Therefore, each year the 837 mowers distributed through this program will save emissions **equivalent to 4,017,600 vehicle miles traveled**.

Using the emissions factors developed by the Utah DEQ these 837 electric mowers will save the following emissions annually:

CO Exhaust	NOx Exhaust	VOC Total	PM10 Exhaust	PM2.5 Exhaust	CO2 Exhaust
14,609 lbs	198.74 lbs	1,329.14 lbs	22.55 lbs	20.75 lbs	91,230.11 lbs

BEHAVIOR CHANGE AND EDUCATION

Green Department Program

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.

At the start of the spring of 2018 semester version 2.0 of the Green Department checklist was rolled out. The version 2.0 of the checklist includes more opportunities for teams to achieve points, different point requirements for the levels of certification, and a new education and outreach section. 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, outreach/education, and innovation points. Some of the credits that can be pursued include transitioning to 100% recycled content paper, participating in the tiny trash program, hosting green certified events, and eliminating all space heaters.

There are currently 66 Departments participating in the program. 50 of those departments are certified with 6 being green certified, 8 gold certified, 14 silver certified, and 22 bronze certified. More information on the Green Department Program including the checklist with all prerequisites and possible points can be found at https://www.weber.edu/sustainability/GreenDept.html

ADDITIONAL SUSTAINABILITY PROJECTS & PROGRAMS

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 are also responsible for implementing sustainability-related projects using $9,800 in annual funds allocated through student fees. The projects implemented with Student Sustainability Fund monies have received a number of positive comments from students, faculty and staff across campus. Over the past few years, the Environmental Ambassadors have installed a total of 27 new bike racks, 6 bike fix-it stations, 13 water bottle refill stations, over 250 indoor recycling bins and signs, and 20 outdoor recycling bins using the Sustainability Fund and supplemental funding from the Energy & Sustainability Office.

This past year, the Environmental Ambassadors (EA) hosted and participated in many service and involvement events through the summer of 2017 to spring 2018 aiming to cultivate a sustainable campus community. In the summer of 2017, EA cleaned trails and swam in the Great Salt Lake, as well as hosted the "Breathe Easy Challenge: Travel Wise for Air Quality" with the WSU Employee wellness program.

In Fall of 2017, EA participated in the Project Lead conference and service activity, hosted the fall 2017 tree planting where over 40 students, faculty, and staff helped plant 8 trees with WSU landscaping on campus, and hosted a movie screening of "How to let go of the world and love everything climate can't change" with the SPARC office. Additionally, in fall 2017 EA took part in co-hosting the 2017 Alternative Fall Break with the Center for Community Engaged Learning. In this service trip, 16 students worked alongside Community Rebuilds to build sustainable straw bale homes for low-income families in Moab, Utah.

In spring 2018, EA hosted the Statewide Clear the Air Challenge at WSU during the whole month of February to address and reduce poor air quality. With the help of WSU wellness programs, the Green Department program, and Weber-Morgan Health Department, EA was able to successfully reduce WSU's carbon footprint for that month by over 8.8 tons of CO_2 as well as bring record student participation that lead to the WSU Student division to win first place in the WSU challenge for the first time. Additionally in spring 2018, EA provided admission for students to participate at the Intermountain Sustainability Summit, funded the installation of PurpleAir

sensors on campus with the Geography Department, hosted Southern Utah Wilderness Alliance at one of their meetings, planted an additional 5 trees on campus with help from 6th graders from Shadow Valley Elementary school, and cleaned up part of the Strong's Canyon trail in their spring trail dig.

Overall, in the 2017-2018 school year, EA collaborated with over seven organizations, provided education and outreach to hundreds of students, faculty, and staff, and generated over 100 hours of service and involvement.

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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