

**Baylor University
Office of Sustainability
2016 Annual Report**

In accordance with Baylor University's sustainability policy, the Director of Sustainability and Special Projects, working with members of the University Sustainability Committee, has compiled the following report that provides an overview of all major sustainability initiatives and new programs of note from January 1, 2016, until December 31, 2016. All data within the report is based on a calendar year due to the nature of our reporting cycle. The 2015 Sustainability Annual Report is also available online at www.baylor.edu/sustainability/. In addition, the 2016-2017 Stakeholder Sustainability Goals from our key partners and the Sustainable 2020 goals are included as Addendum I.

In 2016, recycling efforts continued to expand and impact campus operations. The Office of Sustainability collaborated with a number of other campus departments to refine and improve upon recycling operations during the two days of Move In. Because of this work and the work of the two hundred student volunteers from eight student groups, the university recycled 12.5 tons, or twenty-five thousand pounds. This exceeded our two-day goal for the event of 10 tons, despite a total rainout on the second day.

Along with our Move-In success, we recycled over 11.68 tons during the University's second season at McLane Stadium, an increase of 1.38 tons overall since the stadium's inaugural season. The Office of Sustainability continues to partner with Baylor's Campus Kitchen which captures food from residential dining facilities and redistributes it to local nonprofits, providing good meals for those in need. Baylor's Campus Kitchen was recognized for their work in 2016 by its national parent group, the Campus Kitchens Project, with the "Going Beyond the Meal" award. The university continues to improve upon the past success of the Annual Office Supply Swap, presented by Procurement Services, by redistributing a record number of office supplies within campus, rather than sending them to the landfill.

Baylor also continued to offer its move out donation program, giving students a chance to donate unwanted goods as they move out of Baylor-owned and operated properties. Smith Getterman, Director of Sustainability and Special Projects, worked with Vicki Pierce, Director, Baylor Housekeeping, Curtis Odle, Director for Facilities and Operations for Campus Living and Learning, and community partners, Caritas, Goodwill and Salvation Army, to coordinate another successful donation drive during move-out which saw 41,392 pounds of goods redistributed to the Waco community, rather than thrown away.

The Baylor Energy Madness residence hall competition was revised and expanded, and took place during the spring and fall semesters. This year's campaign saw a 3% overall decrease in energy usage amongst the residence halls that competed. Students were actively engaged in energy reduction and educational activities throughout the semester. All of these efforts were fully supported by Baylor Facility Services and the Office of Sustainability. In addition to the residence hall competition, the Office of Sustainability continued to encourage energy efficient

campus living through its ongoing public education campaigns “Last Out, Lights Out” and “Bears Take the Stairs.”

The Office of Sustainability continued to expand its outreach efforts on campus by participating in major on-campus events such as Uproar Records’ fifth annual Project Greenway, Brothers Under Christ’s Island Party, and Chi Omega’s Chili Cook Off. In addition to participation in on campus events, the Director of Sustainability and Special Projects guest lectured in thirty-two Environmental Studies labs in both the fall and spring semesters of 2016 to support the University’s efforts towards incorporating sustainability into the curriculum. The Office of Sustainability also continued to maintain a presence in New Student Orientation, maintaining a booth during Campus Connections.

The Sustainability Student Advisory Board (SSAB) and the Office of Sustainability hosted the university’s Seventh Annual Creation Celebration, which was held throughout the months of March and April. The celebration featured Student Foundation’s annual Bearathon race, which the Office of Sustainability sponsors and collaborates with Student Foundation to successfully incorporate many earth-friendly elements. Getterman partnered with the Department of Spiritual Life on Baylor’s third creation themed chapel, which featured many SSAB members on stage encouraging their peers to be more engaged in a creation friendly life style.

The SSAB also contributed to the broader community in a number of ways, including volunteering with Keep Waco Beautiful during Baylor’s annual “Steppin’ Out” service initiative. The SSAB also collaborated with the City of Waco and Keep Waco Beautiful to adopt two parks in Cameron Park as their own to clean on a quarterly basis as a way of giving back to and better connecting with the Waco community. The SSAB was also active beyond their adopted parks and Steppin’ Out day of service: they volunteered with the City of Waco to help renovate a park entrance to a hiking trail over the Lake Waco Dam on National Public Lands Day.

The university and its sustainability efforts were recognized in a variety of ways in 2016. Baylor’s sustainability practices were recognized by the Sierra Club’s “Cool Schools” list and noted by Princeton Review’s Guide to Green College and Universities for the third consecutive year. The Association for the Advancement of Sustainability in Higher Education (AASHE) recognized Baylor with our highest ever STARS rating of Silver during the 2016 calendar year.

Getterman finished his final year as an active member of the AASHE Advisory Council, which he was elected to in 2013. In addition to council membership, Getterman established Baylor’s presence throughout the state in April at Earth Day Texas in Dallas and in October, where he had the opportunity to represent the university at Austin’s growing SXSW Eco conference.

With five buildings on the University’s campus officially LEED certified, the Director of Sustainability and Special Projects worked alongside the University to finalize the process of LEED certification for the Paul L. Foster Campus of Business and Innovation. The building incorporated several “green design technologies,” and set a precedent for future sustainable construction methods for every campus facility. Along with green building initiatives, the

university rolled out brand new outdoor recycling opportunities that can be found at the campus' most highly trafficked areas including the Central Libraries, Student Union Building, and Baylor Sciences Building.

Getterman continued to remain active in the broader community through his participation on the Board of Directors for Keep Waco Beautiful, the City of Waco Recycling Advisory Committee, the Waco Chamber of Commerce 1000 Friends of Waco board, the Texas Product Stewardship Council, the Baylor/City of Waco Public Improvement District (PID) Committee, and the Texas Regional Alliance for Campus Sustainability.

A Look Ahead to 2017

After a successful 2016, the Office of Sustainability continues to work on completing and implementing university-wide sustainability initiatives through the end of the academic year. The resubmission of the annual report for an improved STARS rating that at least meets the honor received in 2016, the continuing education of campus and local communities on sustainability-related topics, a continued focus on the basic tenets of sustainability, and the support of our stakeholders to attain their stated goals are all major objectives for the Office of Sustainability for the Spring semester of the 2016-2017 academic year. The second half of 2016 began a new academic year and the Office of Sustainability turned its attention toward the Sustainable 2020 goals, which focus on our waste diversion rate, greenhouse gas emissions, locally sourced food, and water usage. In addition to the Sustainable 2020 goals attached, our Stakeholders will continue to focus their efforts on green cleaning, recycling at all university athletics events, increasing shuttle ridership, and more, as outlined in the attached Stakeholder Goals addendum. While our program continues to mature, it is important to ensure that we educate our community on the most basic areas of campus sustainability. Each of these initiatives will help more people in the Baylor community care for God's creation during 2017.

Respectfully submitted,

Pattie Orr
Vice President for Information
Technology & University Libraries

Date

Smith Getterman
Director of Sustainability and
Special Projects

Date

Stakeholder Sustainability Goals 2016-2017

Baylor University

Below, you will find the sustainability-focused goals for all major Baylor University stakeholders. With the continued growth of Baylor's campus, facilities, and student body population, our immediate focus will turn towards maintaining our past successes and initiatives while always looking for ways to expand our program in the future. The 2016-2017 goals support Baylor's Environmental Management System (EMS).

Athletics

- Maintain 100% Styrofoam-free Baylor Athletics venues
- Continue natural composting when possible at the Willis Family Equestrian Center
- Raise awareness about recycling through PSAs at Baylor Athletic events
- Explore composting options at the Baylor Athletics Nutrition Center
- Make glass recycling available at all LEED certified Athletics facilities
- Continue best practices to prevent chemical and fuel spills (EMS)
- Continue proper control of universal waste – paint and paint related materials (EMS)

Campus Living & Learning

- Ensure recycling is available in all residence halls
- Install bottle filler water fountains in all newly renovated/constructed residence halls

Construction

- Research and implement new sustainable materials and utilize more energy-efficient equipment, fixtures and technology
- Continued focus on sustainable building design and construction for both new buildings and renovations
- Successfully complete all targeted LEED projects and maintain current LEED certifications
- Ensure storm water runoff from construction activities are properly permitted and controlled (EMS)

Dining Services

- Increase our local and sustainable purchasing rate by 5% to reach our 2016 goal. By 2016, 20% of our food will be locally derived.
- Support the bi-annual Campus Farmers' Market
- Provide activities and awareness opportunities three times each semester
- Continue support of Baylor Energy Awareness program (e.g. Dark Hour, Energy Star appliances)
- Increase recycling rate in BDS' offices
- Increase amount of signage in dining halls regarding local purchases
- Facilitate the transition of Baylor University Campus Kitchen cooking operations from the Consumer Science Building to the new Penland Fresh Food Company

- Maintain 100% polystyrene foam free campus
- Continue food grease recycling and/or proper disposal in accordance with Baylor's SPCC plan and POTW policy (EMS)

Energy

- Continued development of the Baylor Energy Awareness Program through the increased use of social media to heighten awareness of energy consumption on campus allowing faculty, staff and students to actively work to reduce energy consumption and, ultimately, reduce their impact while on campus
- Continued development of the academic building energy competition to include more students as well as faculty and staff in an energy competition
- Achieve and maintain the goal of LEED EB certification for Truett Seminary
- Ensure all emission sources are properly permitted and controlled (EMS)

Environmental Management System

- Complete removal of all underground petroleum storage tanks
- Revise Baylor's Spill Prevention Control and Countermeasure (SPCC) plan to include new and changed items
- Mature Baylor's EMS through continued scheduling and information capture within the EMIS2 software

Housekeeping

- Integrate green products into service by converting more than 20% of current cleaning supplies used to more environmentally-friendly products
- Train and educate staff on recycling issues and proper recycling practices
- Partner and coordinate with the Office of Sustainability and Campus Living and Learning for the Take it or Leave it program for end of year move out of Baylor run residence halls and apartment complexes
- Ensure all discharges to the POTW are pre-approved and no discharges are made to the storm water system (EMS)

Information Technology Services

- Reduce energy by evaluating new servers and virtualizing them if appropriate; maintain annual count of virtualized servers. Also, if appropriate and available, select hosted or cloud-based applications to reduce local energy use and take advantage of the excess capacity of vendor super data centers.
- Responsibly recycle all end-of-use technology equipment with certified recyclers or, when possible, donate to nonprofit and ministry groups for continued use
- Purchase only hardware that is rated with a Gold EP certification. (All standard models for departmental computers meet this requirement.)
- Recommend to all departments that rechargeable batteries should be used for all wireless keyboards and mice
- Safely recycle all aerosol cans and non-rechargeable batteries using environmentally friendly procedures

- Reuse or recycle all cardboard boxes and packing materials from delivered equipment.
- Require Duplex printing capability on all standard departmental printer purchases. (Non-standard purchases require special approval.)
- Continue to impact sustainability by ongoing replacement of paper processes. (e.g., using iPads for Line Camp notebooks and electronic check-in for Sing performances, using hand-held electronic devices for processing parking tickets, online graduate catalog, online travel expense reporting.)
- Maintain Green IT webpage on ITS website at <http://www.baylor.edu/its/index.php?id=73445> to indicate current sustainability initiatives.

Parking and Transportation Services

- Increase Baylor University Shuttle ridership

Procurement Services

- Work with suppliers to offer more sustainable products to Baylor departments
- Partner with suppliers to assist Baylor in repurposing existing furniture and equipment
- Encourage campus constituents to consider total product lifecycle when making purchases

Sustainability

- Develop and deliver a Baylor Sustainability Annual Report
- Reach 10 tons recycling during 2016 Move-In
- Educate and publicize to the campus and surrounding communities Baylor's sustainability initiatives
- Successfully complete and deliver STARS 2.0 report

Waste Management

- Reduce campus waste by 5%
- Recycle a total of 450 tons

Sustainable 2020 Goals

Dining: 20% locally sourced food in residence hall cafeterias

- **2015 Update:** Locally sourced food in residence hall cafeterias increased to 11.9%
- **2016 Update:** Locally sourced food in residence hall cafeterias increased to 12%
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Waste: 30% diversion rate

- **2015 Update:** University diversion rate increased to 21%, from a 2010 FY baseline.
- **2016 Update:** University diversion rate increased to 25.2%, from a 2010 FY baseline.

Energy: Reduce university greenhouse gas emissions 15% by 2020 from a 2010 FY baseline, including growth.

- **2015 Update:** Use of electric energy decreased by 9%, from a 2010 FY baseline.
- **2016 Update:** Use of electric energy decreased by 13.1%, from a 2010 FY baseline.

Water: Reduce university wide water use 17% by 2020 from a 2010 FY baseline.

- **2015 Update:** University wide water use decreased by 20% overall, from a 2010 FY baseline.
- **2016 Update:** University wide water use decreased by 21.5% overall, from a 2010 FY baseline.

2016 Annual Environmental Management System Report

In 2016, Baylor University continued to mature its multi-discipline Environmental Management System (EMS) to ensure campus wide compliance and implementation of sustainable environmental best practices. The EMS is a continuous process with operational controls, conformance checking and a corrective/preventive action system used to ensure compliance and improve practices affecting the environment. Baylor also partners with Aramark and has incorporated EMS information specific to facility and contract services into the overarching Baylor system.

Campus environmental aspects and impacts identified in the EMS development process continue to be assessed to determine potential significance. Management programs were instituted and the following environmental objectives and targets were developed.

Under the EMIS, to comply with the Clean Air Act and Clean Water Acts , Environmental Health and Safety:

- Submits an annual air emissions inventory to reflect all current fuel-burning equipment and all other emissions on campus;
- Ensures that the university complies with New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines;
- Ensures that technicians who perform maintenance, service, repair, or disposal of ozone depleting compounds (CFCs) maintain CFC certifications;
- Continues to monitor discharges to the City of Waco [Municipal Separate Storm Sewer System \(MS4\)](#);
- Ensures that major discharges to the Publically Owned Treatment Works are pre-approved by the City of Waco;
- Minimizes discharges made to the storm water system by ensuring that Stormwater Pollution Plans that document the measures taken to minimize the discharge of pollutants from construction sites are in place.

Revise Baylor University’s Spill Prevention and Countermeasure Plan (SPCC).

Baylor University is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill control and countermeasures through regular reviews, updating and implementation for its facility. In accordance with 40 CFR 112.5(b), a review and evaluation of our SPCC Plan was conducted. During fiscal year 2015-16, Baylor University completed the amendment of the SPCC Plan to include changes in the facility design, construction, operation, or maintenance occurs which could affect the facility’s potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. The SPCC Plan was certified by a Professional Engineer (in accordance with 40 CFR 112.3(d).

Provide training for “oil handling” personnel.

EPA Regulation 40 CFR Part 112.7(f) requires that annual training be provided for all “oil handling” personnel to assure an understanding of the SPCC Plan. Personnel at Baylor University whose duties involve the daily management, use, inspection or maintenance of oil storage, transfer, process or treatment equipment are trained in the contents of this SPCC Plan. This

training highlights those portions of the SPCC as they relate to facility operations, including, but not limited to, known discharges or failures, malfunctioning components, and recently developed precautionary measures. The training will include the following:

- Operation and Maintenance of equipment to prevent the discharge of oil;
- Discharge procedure protocols;
- Applicable pollution control laws, rules and regulations;
- General facility operations;
- Contents of the facility SPCC plan; and
- Review of any spills or releases in the last year

This training includes a detailed and complete review of Baylor's SPCC Plan and its standard operating procedures. Training is tracked using Baylor's EMIS2 database.

A Look Ahead to 2016

Efforts will continue to move forward with the above listed objectives and targets. The Department of EHS will continue to partner with Aramark to help ensure an EMIS that encompasses all new responsibilities.