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OFFICE OF SUSTAINABILITY

Western Kentucky University

2014 REVIEW



PREPARED BY THE WKU OFFICE OF SUSTAINABILITY Christian Ryan, Sustainability Coordinator Phone: 270.745.2508

Office of Sustainability 2014 review

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Building a Better Office of Sustainability... 503 Regents Avenue as a Living Laboratory.

October 2013 marked one year since the WKU Office of Sustainability moved into the house at 503 Regents Ave. The first year we focused on establishing baseline data for the house, conducting thermal imaging, door blower tests, and collecting utility use data with a smart meter. In 2014 we began to make improvements including window installation, insulation and weatherization, and the installation of a 5 kW solar array. The house is now nearly set to be net-zero electricity use with the exchange of a few appliances, most importantly a 20 year old refrigerator. Replacing these appliances is a goal for 2015.

More information on the best practice improvements at the Office of Sustainability can be found in the Honors College Capstone Experience/Thesis Project: *Building a Better Office of Sustainability: Pro-moting Sustainable Change and Educational Outreach at WKU*, completed by Andrew Salmon '15.

WKU Engineering students worked with faculty member Robert Choate and C&W Insulation to perform cold and warm weather blower door tests and record thermal images to illustrate air leaks.



Solar Energy Pioneers and BGMU supported the solar project from application to installation. There are 22 panels on the house, with capacity to convert solar energy to 5 kW. This is enough to allow 503 Regents Ave to achieve net-zero electricity use, as long as we continue to conserve.





The attic, exterior walls, and basement were all insulated by C&W Weatherization.

In the yard we're creating community through Project Grow.

Project Grow is a program created to realize a vision for use of the landscape at 503 Regents Ave. This vision included demonstrating sustainable practices in landscape design and maintenance, the development of community garden space based on permaculture principles, and fostering community through the space and activities there. Student Government Association and President Ransdell both have space in the garden. Workshops and demonstrations bring people together. ... and education happens there.

The Project Grow Fellows program is sponsored by the Office of Sustainability. Students apply for a one-year, 5 hour per week fellowship under which they research best practices in gardening, maintain the gardens and landscape, conduct workshops and community days that are open to everyone, and various other activities. They are required to write weekly reflections on the experience, which are proving to be amazing.



2014 Project Grow Fellows: Alex Hezik, Lena Talbott, Linda Cruz, Sydney Allen, David Wesley, Anthony Steiner, and Cayla Baughn.



Dr. John All's Natural Resource Management and Environmental Planning classes provided sustainable site design and planning for 503 Regents. Taking into account the use, permaculture principles, storm water issues, and university standards, among other things, the students proposed a variety of designs for the site. Elements from every design are being incorporated into the final design.

Dr. Martin Stone's Local Food class used the community garden to practice and demonstrate sustainable gardening methods, as well as for a place to cook and enjoy their bounty.

WKU Office of Sustainability

Dr. Neal Downing's Manufacturing and Architecture class designed and built a garden shed made of pallets and other scrap wood. The shed will ultimately have a green roof, demonstrating another sustainable practice.

Project Grow Fellows conducted several workshops in 2014, including hugel construction and maintenance, apple sauce canning, kimchee preparation, and worm composting. They also hosted the Student Summit for the 2014 Campus Community Partnerships for Sustainability conference, hosted at WKU last Fall.



In 2015, the focus will be on expanding garden space to meet community demand, and improving our knowledge about, and application of, permaculture practices. We also plan to grow mushrooms, obtain bees that will be kept by the Big Red Beekeepers, green the garden shed roof, and conduct more workshops and volunteer days to promote community in the garden.





Food Pantry garden plot, maintained by the Project Grow Fellows.

The WKU Food Pantry

In early 2014 the WKU Food Pantry relocated from the Women's Studies Center to the Office of Sustainability. It was hoped that easier access would increase use, and the OoS offered the benefits of space, a refrigerator, and most importantly, a garden plot dedicated to the Food Pantry.

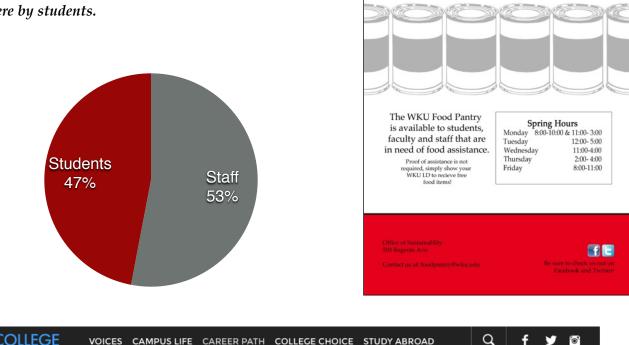
In 2014, use increased by 230%, with 120 visits for food assistance. Not only does the Food Pantry serve more people in its new location, its also been the beneficiary of unprecedented support. This year Tony Rose included the WKU Food Pantry as a partner in his annual "Stuff the Bus" campaign. A portion of the food donated was used to stock the Food Pantry, much of it specially sourced locally in support of the Community Farmers Market. Additionally the Food Pantry was supported by a number of campus groups in 2014 including the WKU Libraries, the Student Athletes Advisory

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Committee, the WKU ALIVE Center, the WKU Greek and Roman Classics Club, and Student Activities Board, among others.

In 2014, 53% of Food Pantry visits were by staff and 47% of visits were by students.



COLLEGE VOICES CAMPUS LIFE CAREER PATH COLLEGE CHOICE STUDY ABROAD Q f Y

More students are fighting food insecurity than you think

By: Kyle Plantz September 2, 2014 9:12 am



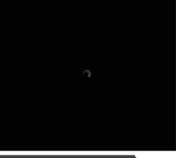
"I was raised to not ask for help from other people, to be proud," she says. "And that's why I did feel ashamed. But college is overwhelming ... sometimes you need help. It's nothing to be ashamed about. It takes a lot to admit that you can't do it on your own."



Maddern was a work-study student in the university vice president's office. She could only work 20 hours a week and she was making minimum wage. Each week, her paycheck went to rent and bills. By the time she was done paying her bills, she did not have enough money left for food.

After her employers advised her to go to the food pantry on campus, Maddern says she built up the courage to walk in the door.

"I was nervous and didn't know what to expect," she says. "I didn't know if they were going to ask me a hunch of



Now located in the Office of Sustainability,

L WKU

Food Pantry

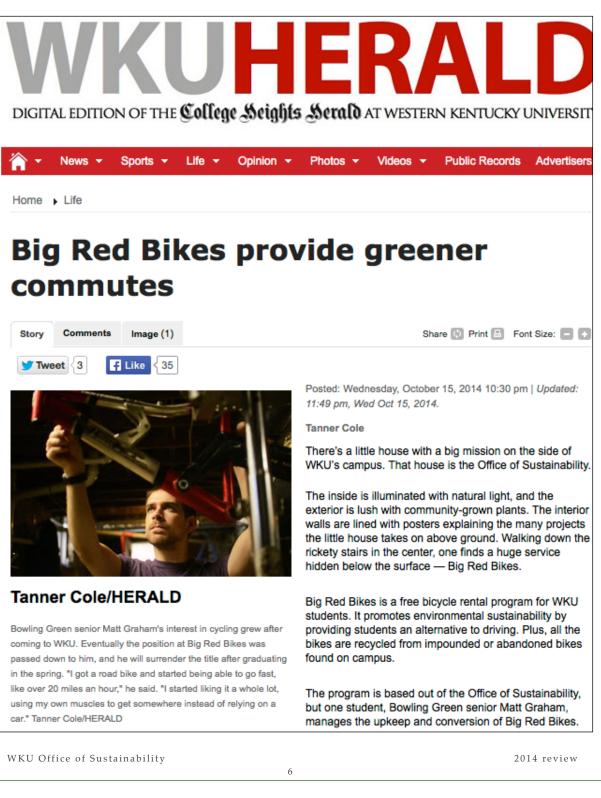
INSTAGRAM | @USATODAYCOLLEGE



Big Red's Bikes

Big Red's Bikes had our biggest year yet, with 265 rentals in 2014. Student BRB Coordinator Madonna May was a guest visitor to several classes to talk about the program, and Bike Mechanic Mathew Graham worked diligently to refurbish old bikes and keep our fleet in good condition.

For the third consecutive year, Big Red Bikes participated in the Arbor Day Bike Rodeo at Keriakes Park by providing bikes for youngsters to ride.



Office of Sustainability Reaching Out Across Campus

In 2014 The WKU Sustainability Coordinator conducted 24 Green Tours for faculty, students, staff, and even a few off-campus visitors, including colleagues from Southern Illinois University Ed-wardsville, and Captain Rick of *The Deadliest Catch*!



Thank you for the Green A Tours

In 2014, the Sustainability Coordinator was invited to guest lecture for a diversity of courses including:

- Honors 251, Citizen & Self
- RELS 408, Religion and Ecology
- BIOL 280, Environmental Science
- CFS 111, Human Nutrition
- MGT, Change Management and Sustainability
- GEOL 315, Energy Climate and Carbon class
- CFS 365, Community Nutrition
- PH 100, Personal Health
- TC Cherry 4th grade



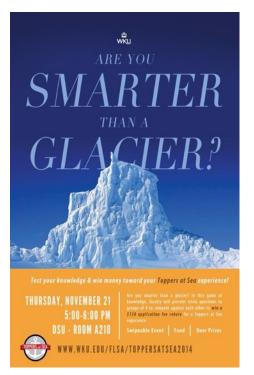
Ms. Sara Jennings fourth grade class read "Little House in the Big Woods" and invited the Sustainability Coordinator to discuss how agriculture has changed since Laura's days as a little girl on the prairie.

Sustainability in Scholarship

In 2014, the Sustainability Coordinator provided assistance for projects in:

- Dr. Jane Olmsted's **From the Amazon to Machu Picchu: Community, Place and Leadership** winter term course, in which students participated in a service learning project under the direction of the WKU Sustainability Coordinator. The project focused on making improvements to the school and community meeting space in the village of Santo Thomas, including repairing a rain water collection tank, repairing desks and chairs, resurfacing chalk boards, and providing school supplies.
- Dr. Bernie Strenecky's **The \$100 Solution** class, in which students developed criteria and application process for The \$100 Solution House, as well as house rules, a proposal for financial aid to ensure that financial status does not act as a limitation for students desiring to live in the house.
- Dr. North's **Global Sustainability** class used the Downing Student Union as a laboratory for research on Green Building Practices, and awareness projects for occupants and visitors to the building.
- Dr. Wilson's **Investigating and Evaluating Environmental Issues** students selected Big Red's Bikes as their project of focus, proposing a variety of initiatives for improvement of the program.

Toppers @ Sea set sail for the North Atlantic study abroad Climate Change Challenge in spring of 2014, endeavoring to learn all about climate change. This interdisciplinary study abroad experience was an innovative best practice, bring a diversity of students, faculty, and staff together to learn about climate change in places where impacts are being felt, and strategies for mitigation and adap-



tation are underway. The experience culminated in completion of service learning projects and presentations to the University of Akureyri, which marked the beginning of a new university partnership for global research on climate change.



Crossing the Arctic Circle ceremony!

A full report describing the Toppers at Sea voyage, *Toppers* @ *Sea* 2014 *as an Innovative Educational Best Practice Model*

was completed by Sustainability Coordinator Christian Ryan as a practicum and submitted to the Institute for Shipboard Education. Ms. Ryan assisted in the planning and coordination for the trip, and served as an academic resource during the voyage.

Another outcome of the Climate Change Challenge: the creation of a Climate Action Committee to create a Climate Action Plan for WKU. This committee, Chaired by Christian Ryan, includes faculty, staff, and students from across campus. Work has already begun in creating a five-year emissions baseline for WKU that will help inform a Climate Action Plan and prepare WKU as a climate ready campus.

WKU Committee for Climate Action

Christian Ryan, Sustainability Coordinator Dr. Jason Polk, Geography & Geology Dr. Leslie North, Geography & Geology Dr. Nathan Phelps, Honors College Bryan Russell, Chief Facilities Officer Gary Meszaros, Assistant Vice President Auxiliary Services Arden Gregory, Meteorology Major Alex Hezik, Sustainable Agriculture Major Jason Delambre – Midwest Clean Energy Enterprise, LLC

Additional scholarship supported by the Office of Sustainability:

Mary Boothe completed her Honors College Capstone Experience / Thesis Project: *Rebranding the WKU Office of Sustainability,* School of Journalism and Broadcasting in May 2014.

Ellen Barringer, Geography and Geology graduate student is currently working on her Master's Thesis, *Assessing use and effectiveness of sustainability interpretive signage and tours on a university campus.*

Kianoosh Ebrahimi, Geography and Geology graduate student is currently working on his Master's Thesis, *Zero-waste management planning at a mid-size university*.

The projects provide students with an opportunity to study sustainability topics in their various disciplines, while engaging in service that supports the institutional mission. Several institutional changes have been made through student research, course projects, or organizational service. Students initiated the Big Red Bikes library, the Earth Day Festival, Fair Trade options in coffee shops and convenience stores, and the Master Plan move-in cardboard drive. In 2014, students initiated the Project Grow Community Garden at the Office of Sustainability.

The research projects described above will each provide information that will inform our actions. Mary Boothe's *Rebranding the WKU Office of Sustainability* project has provided student feedback to help determine which sustainability programs are most impactful to students. Ms. Boothe created a plan of action and even a timeline for the plan as part of her project. The Office of Sustainability has already implemented several of Ms. Boothe's suggestions for improving our branding strategy.

Campus Collaborations

The Global Pathways to Sustainability Scholarship was initiated to encourage and support sustainability research, engagement, and scholarship. The scholarship is sponsored by the Department of Diversity and Communities Studies' graduate program in Social Responsibility and Sustainable Communities, the Office of Sustainability's Green Fund, and University College.

The recipients of this year's scholarship were: Jess Holler, a graduate student in the Folk Studies program, Beth McGrew, a student in the MA in Social Responsibility & Sustainable Communities, and Kendra Whitaker, a senior in Architectural Science. All three are doing outstanding work in sustainability. Beth developed Project Grow, and does research and service with Community Farmers' Markets, the Barren River Outdoor Center, and with the AASHE Stars Reporting Tool; she also works as a graduate research assistant at Bernheim Arboretum and Forest. Kendra works with Habitat for Humanity,

particularly Durbin Estates, as well as in other locations around the country, and is working on a sustainable, grant-funded community center in her hometown. Jess Holler has worked to develop folklife programming around U.S. agricultural history and understandings of sustainable agriculture in the present.

The Global Pathways to Sustainability Scholarship recipients are recognized each year on Campus Sustainability Day.

For **Campus Sustainability Day 2014**, the Office o Sustainability partnered with M.A. in Social Responsibility and Sustainable Communities, Potter College of Arts and Letters, Catherine Coogan Ward Visiting Professorship of the Gender and Women's Studies program, African American Studies, Gordon Ford College of Business, Master of Business Administration, Department of Biology, Department of Social Work, and the Department of Sociology to host an evening with Natalia Allen, Futurist, Eco Fashion Designer. The evening began with a round table discussion with Natalia, after which she gave her talk. "Are Clothes Modern? Fashion with a Conscience".



The WKU Office of Sustainability partners with WKU Dining Services on a variety of projects. In 2014, we completed a full year of composting, averaging more than **one ton per month** of food waste diverted from the landfill to the Baker Arboretum.

We worked on local sourcing, with a goal to increase the volume of **Kentucky Proud** and local food served on campus. One significant achievement was adding ATP Greenhouse as an Aramark approved vendor, allowing for campus dining outlets to serve local tomatoes.

Also in 2014, we wrote and received a Kentucky Proud promotional grant. This funding will be used to promote Dining Services use of "**Udderly Kentucky**" milk in campus coffee shops with branded reusable cups to be given away this spring, as well as Kentucky Proud branded reusable shopping bags to be given away at convenience stores with every Kentucky Proud purchase.



Earth Day 2014 - the 8th annual WKU Earth Day Festival

Each year campus and community partners come together on the WKU Main Campus to celebrate Earth Day, and all that we do to protect, preserve, and enjoy our planet. With local live music, art, awareness demonstrations by student organizations and university class and departments, and community partners such as BGMU and the Community Farmers Market, the Earth Day Festival is always

a great success. The WKU Earth Day Festival is the largest Earth Day celebration in Bowling Green and we welcome everyone to attend. Regular attendees include the Bowling Green Senior Citizens and the Barren County High School Green Club.





Reaching Beyond Campus Boundaries

In 2014, WKU hosted the *Campus Community Partnerships for Sustainability* 2014 annual conference. Endeavoring to showcase the Best of the Best in higher education sustainability, our theme this

year was the Sustainability Roadshow, and everyone brought accomplishments to share. The conference opened with keynote speaker Mitchell Thomashow, author of The Nine Elements of a Sustainable Cam*pus.* The rest of the weekend was spent sharing best practices, workshopping with Mitchell Thomashow, enjoying local bluegrass music, and great local food. A highlight of the conference was the Green Career Panel, hosted by Sara Hutchison, WKU **Recycling and Surplus Coordinator.** The Conference was attended by approximately 70 students, faculty and staff from across the Commonwealth.



The CCPS Sustainability Roadshow was just one of many conferences that featured WKU Sustainability. The Sustainability Coordinator presented at:

- Kentucky Association for Environmental Education annual conference at WKU, February, 2014
- Smart and Sustainable Campuses conference in Baltimore Maryland, March 2014
- Kentucky Auxiliary Services annual conference at Morehead State, May 2014
- Leadership Kentucky meeting in Bowling Green, August 2014
- Association for the Advancement of Sustainability in Higher Education annual conference, Portland, OR, October 2014

Kentucky College and University Carbon Consortium

In 2014, University of Kentucky, University of Louisville, Berea, and Centre College decided to come together to support one another and to invest in Appalachia's small-holder forests through the Kentucky College and University Carbon Consortium. This new consortium is being organized by Midwest Clean Energy Enterprise (MCEE), on behalf of the Mountain Association for Community Economic Development (MACED). After soliciting interest amongst Kentucky schools, MCEE selected the four schools to join together to form a consortium focused on mitigating climate impacts through regional forest management. This initial group is collaboratively designing and launching the Consortium throughout 2014, with all other schools in the state invited to join in 2015. The Consortium is envisioned to serve multiple purposes. First, it will serve as a regularly scheduled gathering of institutional and regional stakeholders to allow its participants to discuss sustainability challenges and opportunities and share best practices. Second, the Consortium will act as a climate clearing house for university-organized resource exchanges, campus tours, speakers, and the purchase of local carbon offsets and services through MACED.

Community Partners

The Office of Sustainability collaborates with the Community Farmers Market on several ongoing and successful projects. The building at 2319 Nashville Road provides the market a year-round home, allowing farmers and producers to expand and improve their operations. For example some farmers have constructed high tunnels for growing during the winter months. Spinach and other fresh greens can be found at the market in January, and more farmers can farm full time.





The CFM Mobile Market, funded with a USDA grant received by the Office of Sustainability and Community Farmers Market in 2012, makes regular visits to campus.

In 2014, the Community Farmers Market worked with WKU to accept Big Red Dollars. Not only does CFM accept Big Red Dollars, but, as with SNAP, EBT, and WIC, doubles them up to \$20. That means for every \$20 worth of fruit and vegetables students buy with their Big Red Dollars, they can get \$40 worth of fresh fruits, veggies, canned goods, milk, cheese, juice, or a variety of other local products.

AASHE STARS

In 2014, WKU completed our third submission for the Association for the Advancement of Sustainability in Higher Education Sustainability Tracking, Assessment, and Rating System. With the assistance of graduate students Beth McGrew and Laura Goodwin, both graduating from the Masters program in Social Responsibility and Sustainable Communities in spring 2015, the Office of Sustainability collected, interpreted, and submitted data into the new 2.0 reporting tool. Version 2.0 is much more rigorous, requiring higher performance to maintain or improve rating, however WKU maintained Silver status with credit to spare.

Areas in which we excelled:

ACADEMICS

Undergraduate and Graduate Programs in Sustainability Support for and Access to Sustainability Research Immersive Experience Campus as a Living Laboratory

ENGAGEMENT

Sustainability Outreach Inter-Campus Collaboration Community Partnerships

OPERATIONS

Indoor and Outdoor Air Quality Building Design and Construction Building Energy Consumption Landscape Management Biodiversity Cleaning Products Purchasing Support for Sustainable Transportation Waste Minimization Hazardous Waste Management Rainwater Management

PLANNING AND ADMINISTRATION

Sustainability Coordination, Planning, and Government Diversity and Equity Coordination Support for Underrepresented Groups

TRACKING, ASSESSMENT & RAING SYSTEM Stars a program of aashe

2014 review

WKU Office of Sustainability

WKU earned INNOVATION credits for:

WKU designated as Safe Community Office of Sustainability as a Best Practice Home CFM Mobile Market and local food access Toppers @ Sea Climate Change Challenge

Some areas in which we have planned improvements:

ACADEMICS

Academic Courses. To improve in this area, we need increased incorporation of sustainability into course curriculum or new courses designed for that purpose, and a mechanism for identifying those courses that focus on, or include concepts regarding, sustainability. The goal is to work with Academic Affairs to incorporate an "S" designate in Digital Measure for these courses.

ENGAGEMENT

Student Educators Program. To improve in this area, we must increase peer to peer education about sustainability. The goal is to train all Spirit Masters to include green points of interest during visitor and orientation tours, and to train at least two students to guide the WKU Green Tour.

Employee Educators Program. As with students, employees must be empowered to teach each other about sustainability best practices, especially as they relate to university operations, practices, commitments, and values. How-to Guides for campus recycling, sustainable catering, and surplus use may be one option. A series of "lunch and learns" could be offered for discussion of sustainability topics.

Community Service. WKU does not earn full credit on this metric simply because community service hours are not recorded in an centralized reporting structure. Ideally, community service hours are included on student transcripts. The goal is to investigate the implementation of this practice at WKU.

OPERATIONS

Greenhouse Gas Emissions. WKU did not earn credit in this metric for this reporting period, however in 2015 an emissions inventory will be completed and a Climate Action Plan will be created. These initiatives are important for a sustainable campus and weighted as such in AASHE STARS.

Food and Beverage Purchasing. Performance is based on percentage of food and beverage that is sourced locally, or third party certified sustainably produced. Presently, WKU Dining Services reports about 2% of total food expenses is locally sourced or sustainably produced.

To review the entire WKU AASHE STARS report, visit: <u>https://stars.aashe.org/institutions/western-kentucky-university-ky/report/3106/</u>