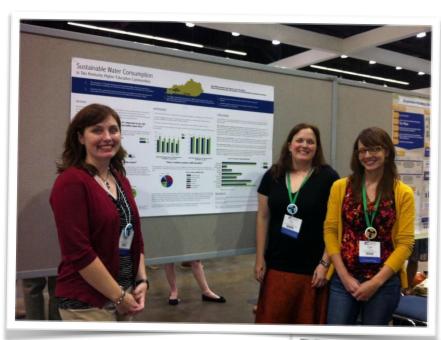
WKU Sustainability 2012 review







Office of Sustainability

created by Christian Ryan-Downing, WKU Sustainability Coordinator

Office of Sustainability 2012 review

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AASHE STARS - Silver

In 2012 WKU submitted our 2nd AASHE STARS survey, earning Silver

Both improved performance and better data collection helped to increase our score. As a graduate assistant for the Office of Sustainability, MBA student Mark Santoro worked on data collection and reporting for the STARS submission for five months in 2012. His work, funded by the Office of Research and directed by Sustainability Coordinator Ryan-Downing, improved our STARS submission by allowing for a broader inclusion of data. Where there were points to be earned, Mark made sure we got them. Areas in which we showed the most improvement:

Education & Research 4.97% improvement

Improvement in Education & Research includes the establishment of Sustainability Research definition and identification, increase in reported Faculty and Departments involved in Sustainability Research, and creation of Sustainability Research incentives.

Operations 16.84% improvement

Improvements in Operations include reduction in campus energy use, improvements in Purchasing such as certified office paper purchasing, establishment of a Vendor Code of Conduct, use of Historically Underutilized Businesses, and purchasing standards for computers.

Waste reduction practices improved as well, particularly in areas of Construction and Demolition Waste Diversion, Electronic Waste Recycling,

In Water management, we improved our score dramatically, mostly through water use reductions due to smart irrigation, installation of efficiency measures, and use of rain water collection.

Planning, Administration & Engagement 11.19% improvement

In the area of Planning, Administration & Engagement, our score was increased by the development of a sustainability-focused campus Master Plan, and sustainability inclusion in the University Strategic Plan.

Our Public Engagement efforts have paid off as well, increasing performance in Community Service opportunities and reporting and Sustainability Policy Advocacy.

Innovation points were earned for all four initiatives:

Ecologically designed parking lots
Fair Trade University
MBA Sustainability emphasis
Mechanical Engineering biodiesel project



PowerSave Campus

Sponsored by the Alliance to Save Energy and TVA

PowerSave Campus interns worked hard in 2012 to raise energy conservation awareness and save kWh on campus.

KWh saved: 37,000

Students reached: 2600

Dollars saved: \$3,384.00

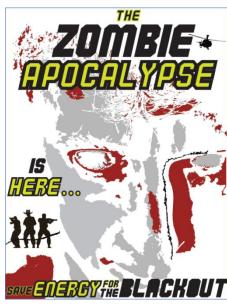
The PowerSave Interns hosted a Green Career Panel in September featuring local professionals who find ways to keep their work "green". Panelists included: Valerie Brown, President of the Service One Credit Union, who built a LEED certified Credit Union building and offers low interest loans on green projects; Joshua Poling, owner and Chef of Home Café and Marketplace, where local food is served; Dale Reynolds, Coordinator of Watershed Watch for KY EPA; Candace Watson, Environmental Engineer for Fruit of the Loom; and Donna Suter, Green Power Switch program representative from TVA.

Check out the December issue of the WKY PowerSave interns' newsletter, The Live Circuit here.

Live Life Unplugged was the theme for energy conservation in 2012. Zombies, vampires and PowerSave

interns all have a stake in energy conservation.





Coming in 2013: *Bluegrass Unplugged*, a Campus Conservation Nationals competition in the Commonwealth.

Local Food for Everyone

During the summer of 2012 the Office of Sustainability collaborated with the WKU Agriculture Department and the Community Farmers Market to develop a proposal for a USDA grant to promote local food. The proposal was funded, providing approximately \$82,000 for this partnership to continue its work through the development of awareness events and activities, a local foods publication, and a mobile educational kitchen.

WKU receives USDA grant to promote 'Local Food for Everyone' initiativeSeptember 24, 2012 – WKU News

*also found at the end of this report

Food Day

In October 2012, the Office of Sustainability partnered with the Community Farmers Market and Barren River District Health Department to host the first annual Food Day.

The event was a huge success, bringing together farmers, chefs, students, policy makers, healthcare workers, teachers, and people of all kinds, who all have one very important thing in common: food.

Event touts importance of locally grown produce – Food Day – *The Daily News*, October 25, 2012 *also found at the end of this report

<u>Five Fabulous Ways Schools Celebrated Campus Sustainability Day in 2012 – AASHE blog</u> – Judy Walton, November 6, 2012







Office of Sustainability

Sustainability 2012, Page 5



Farm Elegant Dinner

The Farm Elegant Dinner raised money for refugee vouchers for the farmers' market and featured local food prepared by the area's best chefs. In the WKU vineyard, under the starry skies and with live bluegrass floating on the breeze, it was all elegance.

Bowling Green: The Next Kentucky Foodie Town? - *Sustainable Kentucky*, October 29, 2012 *also found at the end of this report











Earth Day Month

Earth Day is celebrated with great enthusiasm by the WKU community. The annual Earth Day festival, hosted by WKU GreenToppers and the Office of Sustainability, is attended by people young and old, joining together to celebrate the planet!

This year, April was full of planet celebrating events, including guest lecturer Khol Crecelius, Founder of *Krochet Kids, Intl.* and a film screening of *YERT – Your Environmental Road Trip*, with filmmakers Ben and Julie Evans (Julie is a WKU Aluma) in attendance!

Student Engagement

The Office of Sustainability engages students in a variety of ways:

- providing support for student organizations such as GreenToppers and WKU Americans for an Informed Democracy
- collaborating with faculty on student engagement projects, such as service learning projects
- working with students on class projects and Honors Theses, and practicum, using the campus as a living laboratory

In Fall 2012, Sustainability Coordinator Ryan-Downing was guest lecturer in **6** WKU classes, including one at the Glasgow campus. She was an invited speaker at the fall opening Barren County High School Assembly and presented on student engagement for positive change at the 7th annual *Kentucky Engagement Conference* hosted by WKU in November 2012.

Work in progress:

Honors student Ashley McCloughan is working on a Capstone Experience/Thesis (CE/T) project, entitled "Analyzing Rainwater Harvesting as a Way to Mitigate Stormwater Runoff and to Decrease Potable Water Usage for Gardening Purposes at WKU."

Honors student Andrew Salman is working on a Capstone Experience/Thesis (CE/T) project, entitled "Building a Better Office of Sustainability: Documenting Sustainable Charge at WKU."





Above, MBA students inspect aquatic insects while conducting a stream assessment in Christian Ryan-Downing's *BA 536 Metrics in Sustainability* course. "Word cloud" created from student's final papers.

503 Regents Ave.

Future sustainability best practice demonstration home.

A complete status report can be found at the end of this report.



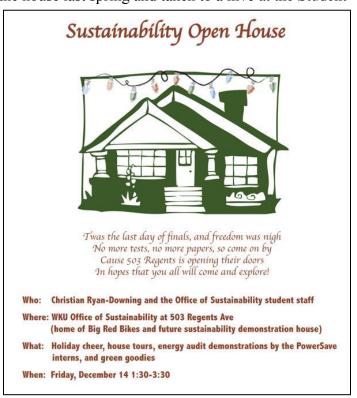


The photo above is of bees removed from the wall of the room that is presently the Sustainability Coordinator's office. The bees were removed from the house last spring and taken to a hive at the Student

WKU Farm.

The Office of Sustainability staff welcomed the community into their new space at an end of semester holiday open house in December 2012.

The following two pages illustrate planned best practices in landscaping for 503 Regents. Created by Campus Services Manager Joshua Twardowski.



The backyard

Below is a best management practice landscape plan for the backyard of 503 Regents. The yard contains an injection well, meant to alleviate flooding problems in the area. A landscape that works to slow down water drainage, improving storm water quality as it drains, will also require little maintenance and provide wildlife habitat.



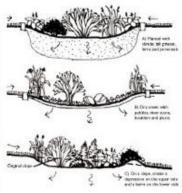
Back yard before BMP is implemented, requires frequent mowing and has a poor ability to slow or filter runoff.

Best Management Practices

Two approaches to best management practices are integrated storm water management and no-mow areas. The BMPs are very important for biodiversity and low to no costs for maintenance. This ap proach to storm water management slows and filters storm water runoff before it reaches the injection well site. The second benefit to this approach is no mow areas. These ares can be maintained with out the use of fossil fuels therefore reducing the carbon footprint.



Back yard after BMP is implemented, requires no mowing and has a excellent ability to slow and filter runoff. it also creates habitat value and is aesthetic appealing.



Rendering by Joshua Twardowski.

Green Screen

A green screen provides insulating properties, especially helpful for a house that has no insulation in exterior walls. Of course, the green screen is also very pretty!



South-east facing side of house with out. Exterior brick can reach temperatures of close to 145 degrees in the sun, resulting in high cooling costs as the heat transfers into the dwelling.



South-east facing side of house with Green Screen. The trellis system supports the plants so that the root wont damage the structure. It really makes it a 'Green House'

Green Screening

The main reason for green screening is to significantly reduce solar gain absorbed by the structure. This results in less heat being bounced back into the atmosphere as well as keeps down cooling costs in the hot summer months. These systems utilize a trellis system that attaches to the structure and does not contribute to damage by the plant roots. These systems are used all over the world for these reasons and the aesthetics. It gives a modern look with a forward thinking approach to cooling.





Rendering by Joshua Twardowski.

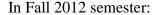
Big Red Bikes

Big Red Bikes continues to be a hit with students.

The creation of a part-time student administration and outreach position for Big Red Bikes was a very helpful and necessary advancement. And the new bike shop – the basement of 503 Regents offers more space to spread out both bikes and volunteers.

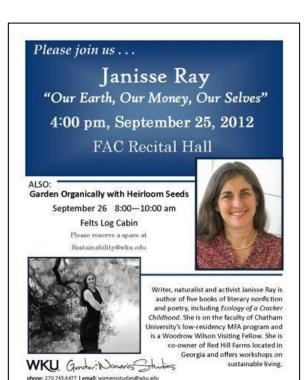
Big Red Bikes student administrator Madonna May applied for our second Kentucky Bicycle and Bikeway Commission Paula Nye

Memorial Grant in 2012. In 2013 we received word that the grant, totaling approximately \$10,000 has been awarded, allowing for expansion of the program to better serve WKU students.



- Big Red Bikes were rented 127 times. This number could have been higher, if bikes had been available.
- As a result of Madonna's effort, social media coverage is up 83% on Big Red Bike's Facebook page and a new twitter account is allowing for social media interaction with other campus departments.

Other outreach and awareness



The Office of
Sustainability partnered
with Gender and
Women's Studies to offer
an heirloom seed saving
workshop with Janisse
Ray in September 2012.

GreenToppers chapter started in Glasgow, Fall 2012 activities included a "buy local pumpkin" campaign in October.



Big Red Bikes

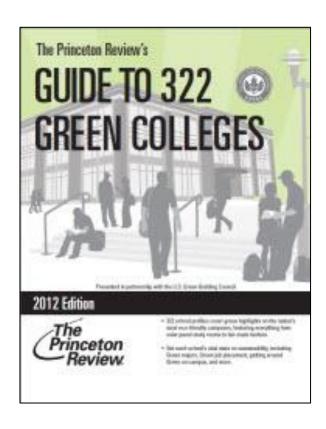
ter the Good Times Roll

Accolades

Princeton Review Guide to Green Colleges 2010, 2011, 2012, 2013

Tree Campus USA





Priorities and Plans for 2013

- Development of **503 Regents** as a demonstration model of best practices
- Campus Conservation Nationals **Bluegrass Unplugged** events Feb April 2013
- Farm to Campus student convergence February 23 AID and GreenToppers
- The **WKU Sustainability iBook** release April 2013
- Release of eat. local food directory April 2013
- Earth Day 2013
- Pursuit of strategic goals energy use reduction and solid waste
 reduction as outlined in the University Strategic Plan
- Improved **outreach and awareness** by the Office of Sustainability
- Creation of WKU Sustainability Strategic Plan
- AASHE annual conference October 2013



Supporting Documents:

WKU receives USDA grant – WKU News Event touts importance of local foods – Bowling Green Daily News Bowling Green...the next foodie town? Sustainable Kentucky 503 Regents progress report

WKU News

SEPTEMBER 24, 2012 · 12:01 PM

WKU receives USDA grant to promote 'Local Food for Everyone' initiative

WKU and the <u>Community Farmers Market</u> (CFM) have received a grant of \$82,194 from the U.S. Department of Agriculture to promote local food for every one.

The project, a partnership between WKU's <u>Office of Sustainability</u> and CFM, will serve area farmers and consumers by promoting local food access through a "Local Food for Everyone" initiative.

"Our team is happy to receive these USDA funds to support and engage local farmers and ranchers," said Dr. Martin Stone, Leichhardt Professor of Horticulture in WKU's Department of Agriculture. "It is not intended to be exclusive to a single market, Bowling Green or Warren County, but will assist all producers in our region of the state.

"The focus of this grant is to increase the profitability of local farmers and ranchers by increasing their market penetration. The theme is 'getting connected to local food.' While the goal is to help producers, their success will be the success of the public, too."

Dr. Stone said the "Local Food for Everyone" initiative will include several strategies:

- An annual Local Food Expo, such as the upcoming <u>Food Day event</u> on Oct. 24, to connect local food producers to local buying networks including farmers markets, restaurants and larger commercial food networks to increase their exposure and opportunities. The food expo will feature seminars, demonstrations and a trade show.
- Construction of a mobile food market trailer that will be used by local chefs to travel to schools, markets and community events where they will demonstrate how easy it is to prepare fresh, healthful local foods.
- Publication of a free semi-annual directory of local food producers, farmers markets and restaurants that
 use local food.

"This is a good partnership because we have so many faculty and students involved in the local food movement," Sustainability Coordinator Christian Ryan-Downing said. "One of our goals is to to reach underserved populations in the area, making sure more people have access to local, healthy food. The grant will help us to do that."

The WKU-CFM project was among more than 130 awarded funds through the USDA's <u>Farmers Market Promotion Program</u>.

"Many people were involved in the creation and writing of this grant and I want to acknowledge that it was the result of many people from both the local food community, local business community and Western Kentucky

University," Dr. Stone said.

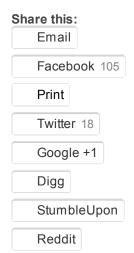
The Community Farmers Market is located next to WKU's <u>Center for Research and Development</u> at Nashville Road and Campbell Lane.

The USDA awarded more than \$9 million in grants to organizations across 39 states, the District of Columbia and Puerto Rico to initiatives that bolster the connection between agricultural producers and their consumers while improving access to healthy food and strengthening local economies. Since 2006, the USDA program has awarded more than \$32 million. FMPP's mission is to establish, expand and promote farmers markets and direct producer-to-consumer marketing. FMPP is administered by the Agricultural Marketing Service.

In 2009, USDA launched the Know Your Farmer, Know Your Food initiative to strengthen the critical connection between farmers and consumers and supports local and regional food systems. Through this initiative, USDA integrates programs and policies that stimulate food- and agriculturally-based community economic development; foster new opportunities for farmers and ranchers; promote locally and regionally produced and processed foods; cultivate healthy eating habits and educated, empowered consumers; expand access to affordable fresh and local food; and demonstrate the connection between food, agriculture, community and the environment.

The "Local Food for Everyone" initiative will officially kick off on Oct. 24 with the <u>Food Day event</u> at the WKU Farm. The Food Day celebration, a partnership between the WKU Office of Sustainability, Community Farmers Market and the Barren River District Health Department, is a full day celebration of local, healthy and sustainably produced food. For information about Food Day, visit <u>www.wku.edu/sustainabilty</u>. For information or to get involved in the "Local Food for Everyone" initiative, visit <u>www.communityfarmersmarketbg.com</u>.

Contact: Christian Ryan-Downing, (270) 745-2508.



Event touts importance of locally grown produce

By LAUREL WILSON The Daily News lwilson@bgdailynews.com/783-3240 | Posted: Thursday, October 25, 2012 11:27 am

Two years ago, Tim Kercheville began growing vegetables in his backyard in downtown Bowling Green, seeing an artistic beauty in living off his own land.

"It's participating in creation," Kercheville said.

Now, about three-quarters of the food he consumes he grows himself and he'll soon be moving to a 14-acre farm near Richardsville so he can grow even more.

On Wednesday, Kercheville brought some of his crops to a Food Day celebration at Western Kentucky University's L.D. Brown Agricultural Exposition Center. Food Day is a national movement toward more healthy, affordable and sustainable food.

Wednesday was the first time Bowling Green has celebrated Food Day as a community, said Christian Ryan-Downing, sustainability coordinator at WKU. The event was a collaboration between her office, the Community Farmers Market and the Barren River District Health Department.

"There's a huge variety of stakeholders (here)," Ryan-Downing said.

The day included a conference with sessions about nutrition, the business of farming and reaching the community with local food. In the evening, a farmer's market allowed the public to meet local farmers and learn about the food they offer.

At the market, Kercheville explained the pollination process he uses on his crops. He believes rising food and gas prices have caused people to look closer to home for food sources.

"There's a trust relationship you can build with your farmer ... there's a natural appeal of dealing with people in your community," Kercheville said.

Kay Preston, who makes barbecue at Hillbilly Grillers in Monroe County, said customers have told her they're willing to pay more for food when they know where it's coming from.

"People are more conscientious about where their dollars are going," she said.

Rob Baas of Alvaton stopped by the market Wednesday to chat with friends who are farmers. He first began thinking about local food when he visited Home Cafe and Marketplace and noticed the restaurant uses local ingredients.

"I've been going to the (farmer's) market ever since," Baas said.

He thinks the food raised by local farmers tastes better than anything he's ever found at a grocery

store.

"The quality of the food is what's kept us coming back," Baas said. He blogs about the food he finds at countrysidefoodrides.blogspot.com.

Eating locally grown food is important for Michelle Howell of Bowling Green, a farmer at Need More Acres on Cemetery Road.

Local food builds a community and keeps people connected to their food source, Howell said.

"That's what I want for my family," she said.

Growing her own food also encourages her to cook healthier food, she said.

There are lots of reasons to buy local food, Ryan-Downing said. It's good for the local economy, it's more sustainable and it lowers the carbon footprint, she said.

"The average food item travels 1,500 miles from farm to fork," she said. "If you eat local, your food doesn't travel so far, so you're reducing your environmental impact."



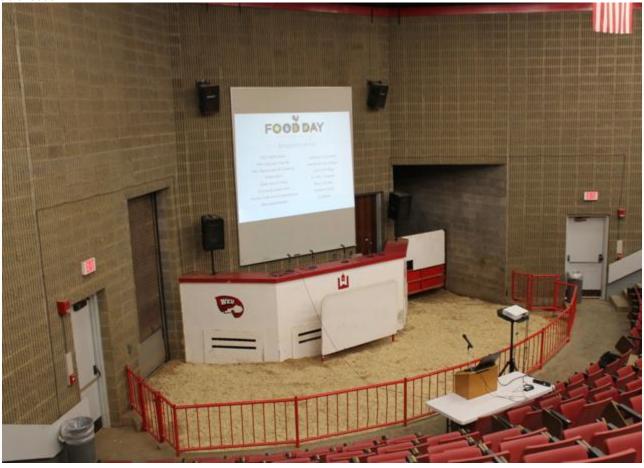
Going Green in the Bluegrass

October 29, 2012 | 2 Comments

Bowling Green: The Next Kentucky Foodie Town?

In recent years, Louisville has led the way for the state of Kentucky by becoming a mecca for real food enthusiasts across the country and the world. It's no wonder—Kentucky chefs have access to quality food produced by any of the 80,000+ farms throughout the state. It only makes sense that a city like Louisville would capitalize on this food availability and the creative talent of their chefs to produce innovative, delicious dishes that keep us salivating. There's more, too—the city has made incredible strides in changing their food system, through programs like Louisville Farm to Table and businesses like Grasshoppers Distribution or the Root Cellar.

But. There is a new city making a name for itself in the Kentucky food scene, and it's in a place that you probably wouldn't expect. In the flatlands of Western Kentucky, a small group of people in Bowling Green are working to reimagine what local food looks like. This is a town with deeply imbedded agricultural roots, but a population still slowly awakening to the importance of eating local, healthy, sustainable foods.



Food Day Bowling Green was held at the WKU Ag Expo Center

I first connected to the Bowling Green food scene through my friends Nathan and Michelle Howell of Need More Acres Farm and have loved getting to watch them work to promote their CSA and the farmers market they play an active role in. Community Farmers

Market is working to build a diverse, young customer base that is a far cry from your typical market crowd. They've accomplished this through a constant stream of activities, farm field days, and online promotion. (Read my complete interview with CFM for more info.)



Food Day tote bags

Nathan and Michelle aren't alone. They are surrounded by a vibrant group of farmers and consumers who are actively being the change that they want to see in their home city. People like Chef Josh Poling at Home Cafe and Marketplace, who has created a crazy menu with unique flavors at his restaurant—all while supporting dozens of local farms by buying their goods. I had heard rave reviews and managed to grab a delicious dinner while I was in BG this week. Don't miss this place the next time you are in town. Come with an adventurous palate and prepare to be wowed.

It's more than just restaurants and farms, too. There are women like Rhondell Miller, a kindred spirit and lover of great local food. This woman is the director at a multi-faceted faith-based ministry called HOTEL INC where she is working hard to overhaul their food pantry. She is striving to move their offerings away from canned, processed goods to healthy, local, fresh ingredients. Part of that overhaul means teaching her clients how to prepare real food for their families, too. (If you have a Kentucky food pantry working towards the same goal, you should contact Rhondell through the HOTEL INC website because she would love to chat with you about the changes you are making.)



As anyone who has ever worked to make a sweeping cultural change knows, this is a long and hard battle. It's the small steps, the little connections, the tiny battles—and occasionally a really enormous victory. Yesterday, I watched my friends in Bowling Green accomplish something with their Food Day event that they've been working towards for a very long time. A joint effort of many government agencies, decision makers, farmers, teachers, non-profits, and local businesses, this event held at Western Kentucky University was a culmination of many months of dreaming and planning by some visionary folks.

This event, part of <u>a bigger picture of events happening all over the country</u>, featured several tracks of speakers, specifically farming, community outreach, and nutrition. There was so much to learn and so many excellent people to meet. What I found really exciting was that a lot of the attendees weren't old pros at this sustainable thing—they were new to the movement and eager to learn whatever they could. This was really the goal for the dream team of women who worked so hard to make this happen—Michelle Howell, Christian Ryan-Downing, Diane Sprowl, and Brittany Ryan.



Michelle summed up their hopes for the event like this: "Our goal was to help everyone grow in their thinking of food. The farmers are helping public health learn more about the needs of farmers and benefits of local food. Public health and KY Department of Agriculture are teaching farmers and consumers about infrastructure that is in place (like farm-to-school, WIC, Senior Nutrition) that makes local food accessible for everyone in the community. It's a new way of thinking about sustainability and making growth in local food systems more realistic."

After a full day of gleaning some excellent food knowledge, it was time to embark on a full evening of activities. This began with an excellent Meet Your Farmer event put on by Community Farmers Market—product samples, giveaways, door prizes, free pumpkins, and hayrides. It was invigorating to see so many young families out enjoying the fall weather and connecting with farmers and nutritious, local foods. *Knowing your farmer* is simply the best way to get people to understand the value of buying locally!



Stoney Creek Farm

The evening wrapped up with a completely perfect conclusion with the Farm Elegant Dinner, held in WKU's beautiful vineyards. Ya'll... I don't say ya'll often, but this food was just wildly over-the-top. The evening was so gorgeous everyone would have been content to simply sit in the vineyard and listen to the live music from local band Red River George without any food at all. But out comes dish after dish of decadent food, each impossibly more delicious than the last. Each course was prepared by a different chef in Bowling Green who told us where each ingredient was sourced and what inspired them to prepare the dish. The food, the atmosphere, the great company—the evening was simply unbelievably good, or at least that was the general consensus at the table I was lucky enough to get a seat at.



Join Need More Acres Farm Store CSA and get all this?!? Wish I lived close enough to be a member!

I feel fortunate to have the perspective of an outsider looking in on Bowling Green. Sometimes when you are really close to something it is hard to see the progress being made. However, this entire long day was nothing short of a *triumph* for the good folks in this city who are working so passionately to impact their community. I hope everyone there realizes how wildly fortunate they are to have this group of people working diligently, almost always behind the scenes, to radically revolutionize where they live! I came home very inspired by these courageous people to make changes in my own small community. Isn't that what is is all about?

I'll leave you with some more pictures for the day and tell you to mark your calendars for next year. Tickets to the Farm Elegant dinner sold out quickly this year and I expect next year to go even faster. You do not want to miss this! Thanks to the generosity of the organizers of this event for enabling me to attend by providing tickets for the day and evening so that I could share it with each of you.

To keep up with all that's happening with these cool people, visit on Facebook:

Community Farmers Market
WKU Office of Sustainability
Need More Acres
Home Cafe and Marketplace

The Office of Sustainability has occupied the house at 503 Regents for approximately four months. The space is used to house the Big Red Bikes mechanic shop and program, and other programs and activities. Eight students work in the Office of Sustainability in various roles including bike mechanic, student assistant, four PowerSave Interns, a student "handy-man" who works on various physical improvements, and a student that is completing his Honors Thesis on the project.

Much of the past four months have been spent setting up the bike shop, painting, installation of walkway and way finding sign, and otherwise improving the interior aesthetics, and developing a project plan and budget, outlined below.

The first order of business is to collect baseline data on the house in its current condition. Thermal imaging and a blower door test will be conducted by Faculty member Bob Choate and his engineering students in the month of February. The results will provide measurable baseline data that can be compared to results of the same test after project completion. The thermal images and door blower test results and photos will be used in educational and publicity materials. As soon as internet is installed, a Smart meter will be installed to collect utility usage data.

<u>Internet and phone connection</u>

Status – in process

Internet and phone connection, or lack thereof, have been a source of frustration since occupying our new space, however we are making do and, having found solutions to several of the challenges, expect internet and phone service within two weeks. WKU IT provided quote for approximately \$20,000 for this installation, but Facilities Management was able to conduct some of the work to

bring the cost down to approximately \$11,500. Charlie Jones has offered to fund this project through the Department of Facilities Management as infrastructure improvement. The IT department also provided funding support for the project.

"Smart" meter installation

Status – pending internet connectivity

A meter for 503 Regents must provide the following functions: ability to interface with Metasys to display real-time use on JCI Kiosk dashboard, ability to provide high-resolution data on energy and water use, ability to read and communicate solar energy production from photovoltaic panels. This meter will be similar in type to the meters currently used in campus buildings and can be provided by WKU Energy Management. The meter must be installed by an electrician. Although the appropriate meter has been identified and is available, it is non-functional without a hard-wired internet connection. In the meantime, I am receiving monthly utility usage data from BGMU.

Estimated cost: \$3000 (Funding provided by Dr. Baylis)

<u>Insulation</u>

Status – plan complete, quote obtained

Insulation consulting was provided by 31W, a local and alumni owned company. Insulation will be blown into exterior walls, placed into attic (currently R-13 to be increased to R-50 as suggested by EPA), and foam insulation will be applied to basement interior. The insulation used will be fiberglass with 25% recycled glass and less chemical than existing cellulose insulation. The cellulose insulation is highly chemically treated, and has a propensity to settling. A cutaway will be installed in the wall to

show the before and after applications of the insulation, with Plexiglas covering and informational

signage. Cost: \$2129

Windows

Status – Capital Window and Door providing windows and installation at net cost of \$1000. (Donation

value \$11000 (est))

Window consulting was provided by Capital Window and Door, a local and alumni owned company.

All windows in the house will be replaced with double-paned, low E windows that have a plant-based

internal support structure. All windows will be replicates of existing windows. There is a spectrum of

windows available on the market, and we are working with manufacturers in Indiana to develop a

demonstration plan. The back room of the house (conference room) contains 14 windows. We would

like to try to place six or seven different windows on the spectrum side-by-side in this room, so that

the entire range of options that are available to homeowners might be displayed. This display will be

accompanied by informational signage. Alan Cannon, owner of Capital has offered windows at cost.

Estimated cost: \$1000

<u>Instant hot water heater</u>

Status – pending further research – quote below is too high

Consulting for the instant hot water heater was provided by Lyons, Inc. Because hot water is rarely

used in the house, it makes sense to use an instant hot water heater rather than keeping a tankful of

water hot without need. A gas instant hot water heater will be installed, and the original removed.

Cost: \$4450

Solar photovoltaic array

Status – in progress

Consulting and installation for the photovoltaic array is provided by Solar Energy Pioneers, locally

owned. Solar application plan has been determined and tree has been removed for optimal solar

collection. I meet with Tommy Jones this week to discuss details of the array, including KW output,

grid-intertie options, and other such details. Mr. Jones has offered sponsorship for solar array but

associated costs will be incurred. Estimated cost: pending inter-tie details

Ventilation for Bike shop

Status – in progress

The installation of a ventilation system for the basement of 503 has been advised by EH&S for health

and safety of student bike mechanic and volunteers. This project is being completed by WKU Facilities

Management. Cost: \$5500.

<u>Bathroom</u>

Status – plan in progress

Bathroom will be renovated to stand-up shower (glass donated by KY Plate Glass and Mirror), low-

flow fixtures, new sink, new tile on the floor and radiant floor heating. Work will be donated by

independent contractor John Downing. Cost estimates for equipment and materials to be

determined. Estimated cost: pending

<u>Kitchen</u>

Status – plan in progress

We are currently investigating requirements for "certified kitchen" as this certification would allow us

to conduct workshops such as canning or food processing, cooking classes, and even meal

preparation for events. The kitchen will be remodeled to demonstrate sustainable materials,

including recycled glass countertop. Appliances will be replaced with highly efficient models. Cost

estimates to be determined. Estimated cost: pending

Landscaping

Status – plan in progress

Landscaping in backyard will feature rain gardens and other water quality and quantity improving

elements. Native and low growing trees will be installed. A tool shed made from pallets will be

constructed by engineering students, as will raised beds for food gardens.

The driveway will be removed and a permeable driveway and parking area will be designed.

The front yard will feature native species and removal of turf to eliminate need for mowing.

A "green screen" will be installed on the south facing wall to insulate the house and improve water

run-off quality and quantity.

Rainwater collection will be optimized to reduce run-off and reduce need for potable water use for

landscaping.

Estimated cost: pending

EH&S factors:

EH&S has tested for radon and mold, both of which fall in acceptable levels for office space.

Lead paint exists on all interior trim work.

Asbestos testing is in progress for some glazing materials and bathroom floor tile.

<u>Funding</u>

Status – in progress

I have been working with the WKU development office to learn about potential sponsorship opportunities from Alumni or other donors. William Skaggs is my advisor on the project and he and Donald Smith have been very receptive and supportive. They have offered to help develop a brochure for the project that can be distributed to potential supporters. They have also agreed to feature the project in the spring issue of the Spirit magazine. They have advised that first priority is to develop a budget, so that we may all know how much funding must be raised.

I am constantly looking for grant opportunities but thus far have not found any that are available for such a project. These will come in time, and when they do, I will apply.