

NREM Update

DECEMBER 2010

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Edited by

- Dr. James Eflin
- Dr. John Pichtel
- Jennifer Crawford
- Susan Taylor
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A Challenge from Our Fearless Leader By Dr. James Eflin

Greetings, friends!

Soon we celebrate the end of 2010 and the beginning of a new year. Every new year is accompanied with an opportunity to resolutely decide to improve the way we live our lives. This year, I issue a challenge for your New Year's resolution.

I challenge you to increase the fuel efficiency associated with your transportation. Graduates of our program are aware of many different factors that affect our fuel efficiencies, but you can click [here](#) to view recommendations on fuel economy from the Environmental Protection Agency for more ideas.

Here on campus the administration has been encouraging us to increase our wellness through a variety of programs, including Start Where You Are. So start where you are: determine the fuel efficiency of your transportation uses as a baseline (remember that from your student days?), then figure out ways to increase the fuel efficiency of your travels -- daily, weekly, monthly; commuting, pleasure, business, and so on. Choose a target date to change your performance, then track it and report it. When you find that you've managed to make some positive improvements, send us a note to tell us what you accomplished and how. We'll take the best responses and report them (anonymously or with your name; you choose) to the NREM Alumni Society and in the next NREM newsletter. Maybe there are even prizes in store.

Whether you drive a Hummer or Prius, improvements are possible. Improvements come in the price you pay at the pump and the price your world pays in the future of our climate changing environment; not to mention in the price our country pays as a portion of its trade deficit.

Thank you for taking the time to consider this challenge. All of us at NREM hope that you and your families have a wonderful and blessed holiday season.

James Eflin
Chairperson and Professor

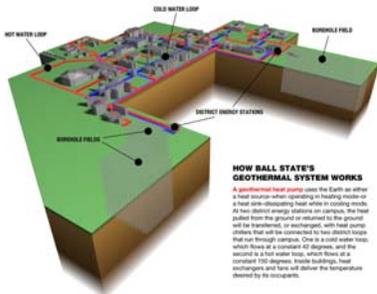


Campus Sustainability Improvement Update By Lanette Erby

Geothermal Construction

BSU's geothermal project is running on schedule and aims to supply heating and cooling to 50 percent of the campus and to shut down two of the campus's coal-fired boilers by Fall 2011, according to Director of Engineering, Construction, and Operations Jim Lowe. Of the 3600 bore holes necessary to complete the \$84 million system, 1800 have been drilled under the intramural fields and parking lot next to Carmichael Hall.

Click on image to enlarge



“Reconstruction of the areas has begun and by next fall, people won’t be able to tell that drilling took place” said Lowe.

Construction is also underway at the west end of the Carmichael Hall parking lot on the North District Energy Station, which is the hub of the operation that houses the heat pump chillers and water pumps. The station is scheduled for completion in February 2011 and Lowe says he expects water to be flowing by next summer. You can follow the station’s progress by viewing the Geothermal Drilling and



LEED Silver-rated Dehority Hall

Construction webcam [here](#).

The Hoosier Environmental Council (HEC) recognized Ball State University as its Technology Innovator of the Year during the organization's third annual Green Policy Forum in November.

In 2009, Ball State University broke ground on the new ground-source geothermal district heating and cooling system that, once completed, will be the largest geothermal district system in the country. The project will serve as a national model, demonstrating that district geothermal is a feasible and economically viable option.

When complete, the system will replace four coal-fired boilers and save the university \$2 million a year on heating and cooling costs, as well as reduce the carbon footprint by approximately 77,000 tons of carbon per year. The project is also stimulating jobs in Indiana, creating work for 44 firms in 15 counties in Indiana. More information about the project can be found [here](#).

LEED Certification

Dehority Hall is the first campus building to achieve Leadership in Energy and Environmental Design (LEED) status! The silver rating is the standard for all future new building projects at BSU.

The University is also applying for LEED silver rating recognition for the following campus buildings (you may click on the link for each building for more information): [The David Letterman Communication and Media Building](#); [Park Hall](#); [Kinghorn Hall](#); and [The Student Recreation and Wellness Complex](#).

The completely-gutted Studebaker East building will also be submitted for LEED recognition when renovation is complete. You can view Stu East’s construction webcam [here](#).

Transportation

Last, but certainly not least, Ball State’s transportation fleet is green! The fleet boasts an all-electric postal vehicle, 11 biodiesel shuttle buses - six of them hybrids - and 20 buses running on biodiesel.



Ball State's hybrid shuttle bus makes a stop on McKinley Ave.

Natural Resources Club Update By Lanette Erby

The Natural Resources Club is busy as ever enjoying all that nature has to offer and lending a helping hand!

The Club participated in September's White River Clean-Up, which saw nearly 1,000 volunteers from communities up and down the river collecting in excess of 25 tons of trash.

Rain gardens and storm water run-off prevention were discussed at a meeting, with representatives from the Muncie Sanitary District.

The club also went on their annual canoeing and kayaking trip to Canoe Country in Daleville, IN.

Members of the Ball State Energy Action Team participated in a NR Club meeting to discuss the energy challenge highlighted on page 4.

Next semester, the club looks forward to planning April's Earth Week events, which you can read more about in the March 2011 NREM newsletter.

NREM Internship & Career Fair

The annual NREM Internship & Career Fair will be held on Tuesday, January 18, 2011, in the BSU Alumni Center from noon to 4:00 p.m.

The emphasis is on internships, but other partnerships or employment-related opportunities are welcome.

Students from NREM, landscape architecture, geography, geology, biology, marketing, criminal justice and public relations are among attendees.

Click [here](#) to view the schedule, a list of participating organizations, and for the link to the exhibitor registration form.

Ball State Opening a Whole New Can of Worms By Stacy Wheeler

Each summer my hometown of Huntington, West Virginia holds an annual earthworm race at the local library to get more kids in the door. *Yuck that sounds gross!*

Well not to me. Carrying a child size shovel in one hand and a bucket in the other, I happily dig up a worm each summer in hopes that I pick a winner. Friends that know me well say that the annual earthworm race (among other things) helps to explain me and my interests in the environment.

When I was five, I noticed that the prized night crawler I had plucked from the ground was not crawling about like it had been before when I was giving it last minute racing strategies. In fact, my prized night crawler was not moving at all. I started screaming, "Something is wrong!" and tears started running down my cheeks. I mark this as an early sign of my compassion for nature and living things. I think the scorching sun had done a number on my earthworm. Boy, did I feel bad.

Luckily, a 7-year-old boy heard me crying and said, "I'll give you a new worm if you want." Immediately stopping my tears, I smiled again and replied, "Oh, would you please...that would make me so happy! Aren't

earthworms such interesting creatures?" "Oh sure," said the boy. "Night crawlers are neat. Besides I dug up extras anyway." To my surprise my newly acquired earthworm crossed over the finish line first that day. When I got back home I placed both



Stacy Wheeler has no problem handling worms in the Christy Woods Greenhouse

earthworms, dead and alive, in the backyard compost pile to do their jobs. The real message I learned that day was from the simple action of the little boy who cared and easily shared his prized night crawlers with me. Likewise, environmental stewardship is very much about sharing, collaborating and building friendships.

Today, a growing number of students,

faculty and staff are making informed choices in their daily lives, work places and communities that are good for the environment, for their wallets and for their overall quality of life. These actions are inspiring - and evidence of an emerging societal commitment to environmental stewardship.

In the upcoming year, I hope to spend time meeting and talking with NREM students, alumni and staff about their vision for stewardship - and I hope to make long lasting friendships along the way. In return, I hope to facilitate additional campus sustainability initiatives that support Ball State University's goals towards excellence. I see it as a win-win approach.

Stacy Edmonds Wheeler is the newly hired Sustainability Specialist in the department of Facilities Planning and Management at Ball State University. She co-founded the national Recyclemania Competition and has spearheaded a variety of campus green initiatives nationwide.

For more information about upcoming sustainability events and initiatives at Ball State University, you can reach her by email at sewheeler@bsu.edu or by phone at (765) 285-2873.

Residence Hall Challenge a Success! By Kurtis Moss

The Ball State Energy Action Team (BEAT) is hard at work wrapping up its first ever Residence Hall Energy Challenge. The challenge ran from October 25 to November 22 in nine residence halls.

Johnson Complex is the winner! At the awards ceremony, residents received the coveted Energy Challenge lamp trophy (a retrofitted table lamp with a CFL in it from Goodwill), a pizza party from Dining Services, the exclusive use of Outdoor Pursuits' climbing wall, and of course bragging rights. Approximately 75

students attended the awards ceremony to celebrate their energy savings greatness.

For the remainder of the semester, BEAT will meet with Energy Challenge participants, sponsors, and students who have shown increased interest in conserving energy on campus in an attempt to further reduce Ball State's carbon footprint and energy use.

BEAT is looking forward to planning the 2011 Residence Hall Energy Challenge. The new challenge highlights additional ways to save on energy use, new

prizes, and a broader range of student and faculty involvement across campus. BEAT wants to thank all of its 2010 sponsors for their help in making this year's Challenge a success!

Thank You, Sponsors!

- ◆ Facilities Planning and Management
- ◆ Housing and Residence Life
- ◆ Dining Services
- ◆ Recreation Services' Outdoor Pursuits Center
- ◆ Emerging Technologies and Media
- ◆ Student Government Association
- ◆ Emerging Green Buildings
- ◆ Students for a Sustainable Campus
- ◆ Natural Resources Club
- ◆ Council on the Environment



For more information about upcoming events, becoming involved or general information about the Natural Resources & Environmental Management Department, please contact **Ms. Connie Tyner, Administrative Coordinator** (information provided on right).

If you are interested in being considered for membership of the NREM Alumni Society, please contact **Mrs. Sue Taylor** at alumni1@bsu.edu.

The NREM community would also like to thank everyone who helped contribute to the development of this newsletter.

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Donating to NREM

If you would like to make a donation to the Natural Resources and Environmental Management Department, please visit [here](#) or use the link provided on the NREM [Web site](#) and click on "How to Make a Gift." Below are some of the areas that you may consider when making your donation.

Thank you for your support of Ball State University's Natural Resources and Environmental Management program. The contribution you make to the NREM department may benefit any one or several of the accounts below:

- Funding for the general welfare of the NREM department: #6201
- Operation of the Hults Environmental Learning Center: #6203
- Activities and awards of the NREM Alumni Society: #6204
- Funding for research projects within the department: #6216
- Funding for soil research projects within the department: #6217
- Funding for activities to aid in the understanding of soil and water conservation: #6218
- Funding for renewable energy & industrial ecology research and teaching: #6219
- NREM Scholarship: #6250
- Clyde Hibbs Scholarship: #6253
- Alex and Anna Nicoloff Scholarship: #6254
- Charles Mortensen Fellowship: #6255

For more information on giving to NREM, contact [Mark Robbins](#) at 765-285-7055 or marobbins@bsu.edu. If you are interested in supporting the creation of a new scholarship, please contact [Dr. James Eflin](#), NREM Department Chair, at (765) 285-2327 or jeflin1@bsu.edu.