

**University of Colorado at Boulder**  
**2013 Sustainability Awards Descriptions:**

**James Balog, Outstanding Alumni**

James Balog has been a leader in photographing, understanding and interpreting the natural environment for three decades. The University of Colorado Boulder alumnus began his graduate degree in geography and geomorphology in 1975, drawn by a fascination with the way the mountains and the geography of the area was sculpted by nature. An avid mountaineer, James is equally at home on a Himalayan peak or a whitewater river, the African savannah or polar icecaps.

To reveal the impact of climate change, James founded the Extreme Ice Survey (EIS), the most wide-ranging, ground-based, photographic study of glaciers ever conducted. Recently, the Oscar-nominated film *Chasing Ice* has brought worldwide attention to his life's work. James is the author of seven books, including *Extreme Ice Now: Vanishing Glaciers and Changing Climate*, published by National Geographic Books in 2009.

James and his team also perform outreach, presenting at international film festivals and climate change exhibitions. They continue to focus outreach efforts on curriculum development for both high school and university students.

CU-Boulder is proud to have James Balog as an alumnus.

**Robert Dixon, Individual Achievement**

Three years ago Robert Dixon, the director of Information Technology for Housing and Dining Services had the technical strategic vision to examine moving the department to a virtual desktop platform. After a year of planning and developmental challenges, Robert and his IT team created, piloted, deployed what is now a successful VDI production environment. This is one of the first and largest successful educational business deployments of its kind for a department of this size. Replacing 500 workstation computers with the new zero clients, Robert's VDI solution has reduced the costs of electricity by \$30,000/yr, reduced manufacturing, shipping, and disposal costs of equipment, dramatically reduced administrative management, provided true mobility for all departmental staff, and reduced equipment purchasing by half. Each application and system had to be configured and tested to ensure it would perform in the virtual environment. This methodical implementation required patience and persistence. Other departments are now actively working to deploy a VDI solution.

The idea, funding strategy, constant drive and oversight and ultimately the finished successful production environment is credited to Robert's direction, organization, risk and vision.

Robert has also been a leader in other key sustainability efforts over the years at CU Boulder. He converted all of the 75 servers of the department to virtual servers. In 2000, he initiated a pay-for-print solution with the Housing department that greatly reduced wasteful “free” printing by Housing residents. Two years later this solution was implemented campus wide and is the current model that is still in production on campus today. Robert also created a printing and reporting solution for the HDS department. This solution provides the best feedback solution for controlling printing and has been in production for 3 years.

### **Facilities Management Custodial Services, Departmental Achievement**

In August of 2011, the FM custodial crews embarked on a pilot program to collect compostable waste from building restrooms. The pilot began in 3 buildings: Koelbel, Education, and EH&S. They placed central collection bins in every restroom in each of the buildings. Custodians agreed to empty these bins daily and take the compostable waste to the loading dock. While grant funding was provided for start up costs such as compost bins & liners and collection carts, the custodial crews’ additional labor was not funded. This led to creative solutions that ultimately led to a cost-effective, efficient, and equitable system for collecting organics.

Based on the pilot program, this model could be implemented in all General Fund and academic areas. In some cases, custodians have been able to remove trash bins from restrooms that have compost bins. This saves them additional time and money as they no longer need to use trash liners and they have also repurposed the trash cans inside recycling cabinets.

Most importantly, the custodians feel proud to be contributing to the campus zero waste effort. They feel more appreciated and valued than they did when they simply collected trash. Considering there was no additional funding for labor, the Custodial team could have easily perceived this effort quite negatively; this group in particular is often asked to do more with less. The pilot began with custodial supervisors volunteering to help. This enthusiasm has spread through the group with other supervisors now coming forward and asking to be the next cluster to participate.

One significant aspect of this program is that it was possible only by the commitment and dedication of the staff that volunteered to participate. This was not a mandate. Another significant aspect of this program lies in the design of the collection process. This cost-neutral system allows for co-collection of both trash and compost at the same time and does not add new locations to the custodial route.

The program has been in place since August and has since expanded to six buildings with more in planning.

### **William Franz, Individual Achievement**

As the IT Manager for the Ecology and Evolutionary Biology Department, Bill Franz went beyond the call of duty in a project that not only resulted in significant energy savings but also improved the quality of computer equipment available to his department. He also did it in a manner which resulted in little to no expense to his department. Here's what he did- Bill reached out to departments who periodically need to cycle out their computer equipment with new equipment to find equipment to replace older, energy-inefficient computer equipment in his department. In addition to upgrading equipment for energy savings, Bill and his student team, also adjusted settings on computers and printers to allow for shorter times of inactivity before sleepmode or shut down occurred and provided instruction in turning off equipment. Bill has also worked to replace CRT computer monitors with energy efficient flat screen monitors in his department. This project was implemented last summer on approximately 200 computers and resulted in up to a 70% reduction in electricity use by lab computers and an 85% reduction in electricity usage by computers used in classrooms.

Bill is sharing this story with IT staff from other departments to encourage similar efforts.

Bill's work serves as a model for making significant reductions in IT energy use without funding. He has been innovative and collaborative in his efforts.

### **Housing & Dining Services, Partnership for Sustainability**

Staff at Housing & Dining Services innovated an alternate way to hydrate the thousands of participants at Global Jam. The HDS team decided to construct hydration stations to provide cooled, filtered water to the participants.

Estimates show that up to 40% less bottled water was required at the 2012 Global Jam event as attendees were able to fill their own containers or use the compostable cups. 2000 incoming students received new bottles to refill. Waste was certainly reduced, but importantly this project helps establish the expectation that this is what we do here at CU from day one. Our daily habits make a difference.

Part of the merit of this award is the can-do attitude of the staff involved. Initial research by the Environmental Center showed only pre-fab units for purchase at a very high cost or mobile units for rent but nothing locally available. When approached with the options in consideration, HDS staff did not hesitate to take on the project internally.

The team used a trailer that was already in stock, and constructed the remaining pieces from existing stainless steel counter tops, adding the necessary plumbing to provide cooling and filters.

Thank you to the staff who worked on making this happen:

Mike Hilton, Ed Sanks, Paul Brandt, Juergen Friese, Lauren Heising, Ricky Reid, and Don Seeley.

**Paul Komor, Green Faculty**

Paul Komor is the Energy Education Director at the Renewable and Sustainable Energy Institute (RASEI) and a lecturer in the Environmental Studies Program.

As RASEI's Education Director, Paul is working to establish CU-Boulder as a leader in energy education. Paul also has an active research program in renewable electricity policy, and teaches undergraduate and graduate courses in energy technology and policy. Many of the students who have gone through programs Paul created are now leading energy efforts in this community and nationally!

Without Paul's efforts, there may not be the comprehensive programming in place for energy studies that exists at CU today. These programs are a draw to the campus and help set CU apart as a leader in preparing students for careers in the energy and sustainability industries. Paul began this work about a decade ago in the ENVS department by creating an energy track and directing students in that track. The program has expanded through the partnership with what is now RASEI.

Paul has not only inspired students through his course by providing "real life" material and experience, he has provided the foundation for energy education at CU through the ENVS and RASEI programs he created.

**Graham Meriwether, Outstanding Alumni**

Graham Meriwether is a documentary journalist and the director at Leave It Better. Graham studied at the University of Colorado at Boulder and is based in New York City. Graham is a Forever Buff so we know he is proud of his roots at CU.

In 2010, Meriwether founded the non-profit organization, Leave It Better Foundation, whose mission is to empower youth to heal our environment. Leave It Better has helped build 10 gardens in schools in New York City, and has over 2,000 students who have learned how to compost, plant and harvest through the year-long educational program and at the Kids Community Garden in the Bronx.

For the past five years, Graham has been focused on directing and distributing the film American Meat. American Meat is a pro-farmer look at chicken, hog and cattle production in America. The American Meat film screened here at CU-Boulder in February to a packed house. Graham took a labor intensive and non-traditional approach to screening the film. They focused on campuses nationwide and setting up community events to hold discussion and engage students in the issues.

Graham has some new projects coming together and will continue to make CU proud.

### **Shimshon Rapaport, Student Achievement**

Shimshon Rapaport, a Mathematics Student at CU, created a successful paper reuse program called: The Reusable Scrap Paper Project. This project has taken excess paper, misprints, recycled, and otherwise non-printable paper and put it back to use at campus help desks across the campus. These help desks were previously using brand new reams of paper for the "scrap" paper used by the tutors. Also, the reclaimed paper is also distributed to various departments to print on the blank side as needed. All help desks are now using scrap paper instead of brand new paper, saving the university money and natural resources. The project has reused approximately 1,500 pounds of paper since the project began in March, 2011.

Shimshon simply is acting as a motivated student who cares for the environment and wants to improve sustainability on Campus. Shimshon has put in countless volunteer hours on a weekly basis to make this program a success. From coordinating with various department contacts, to sorting paper, to weighing the paper for metrics recording, to ""schlepping"" paper all over campus, his efforts have been critical to the success of this program.

### **Special Recognition Certificates**

Facilities Management Meridian Implementation Team, Departmental Achievement  
Meridian is a document management software, which stores project documents electronically. Facilities Management project documents used to be paper based, a LOT of paper if you are familiar with design & construction contracts and amendments. Going paperless is certainly becoming the norm but it is not a painless process.

The Meridian Implementation Team consisted of several members from Facilities Management: Jennifer Sample, Chuck Moloczniak, Phil Martin, Aaron Saraceno, Eric Miller, Bea Antequera, Alan Fasick, Sandy Johnson, Bill Ward, Margaret Chiu and Aaron Colvard.

This group researched software options, developed an implementation plan and has maintained the system, while simultaneously training employees on how to use the system.

The broader impact of using a system such as Meridian is multi-fold. The cost of paper, ink, and printing labor time, is saved. Document accessibility is increased. Physical storage needs are reduced.

#### Trades Services, Facilities Operations, departmental achievement

Each of the shops within Trades Services works across campus to improve sustainability. The Electric Shop is replacing indoor and outdoor lights with LEDs, and installing Variable Frequency Drives to adjust motor and pump speeds to match building requirements. The HVAC shop is using building automation to control digital thermostats and electronic humidistats. The Paint Shop recycles and donates paint to local charities. The Pipe Shop installs dual-flush handles and faucet aerators around campus and uses steam traps around campus to increase energy efficiency. The Preventative Maintenance Shop uses high-performance filters in campus buildings. The Structural Trades Shop installs roofing materials that reflect sunlight to keep buildings cool and conducts infrared scans to locate repairs.

These efforts have decreased campus consumption of energy and water and have increased efficiency in systems used to run campus facilities.

#### Garry Street, individual achievement

Garry works as an electrician in the Facilities Management Electric Shop. For two years, he has been working with the electrical systems recommissioning team. Gary has done an outstanding job of identifying old and inefficient motors campus wide and has nominated these units for replacement with new and highly efficient motors. Gary has managed to identify and replace over 70 units. Our campus is reducing energy usage, reducing the deferred maintenance backlog and has received significant rebates from Xcel. Gary is an electrician responsible for motor and fan replacements. He has chosen to focus on purchasing and installing the most efficient equipment and follows up with the rebate applications.

#### T. Pepper Clayton, individual achievement

Pepper improves campus building envelopes by identifying buildings in need of additional insulation and weather stripping. This activity generally results in improved comfort and reduces heating and cooling energy use. Pepper's work has provided Facilities Management with the ability to focus on improving individual building occupants with a level of comfort. His friendly nature has created a valuable interface between building occupants and the staff in Facilities Management Operations and Maintenance, and Engineering.

The building insulation and envelope initiative began in 2011 and has completed over 12 buildings. Pepper has done an exceptional job of identifying the best building candidates by using infra-red technology as well as field inspection. Pepper's diligence and persistence are what place his work above and beyond his assigned duties.