9TH ANNUAL SMART AND SUSTAINABLE CAMPUS CONFERENCE

March 3 - 4, 2014
Hyatt Regency Baltimore
Baltimore, Maryland

Pre-conference Workshop - March 2
Post-conference Workshop - March 5
Conference Planning Committee
Steve Glazner, APPA (Leadership in Educational Facilities)
Michael Gulich, Purdue University
Trina Innes, University of Alberta
Scott Lupin, University of Maryland
Michele Madia, Second Nature
David McIntyre, Vanasse Hangen Brustlin (VHB)
Curtis Patton, Waste Strategies
Seann Sweeney, Association for the Advancement of Sustainability in Higher Education (AASHE)
Jaime Van Mourik, U.S. Green Building Council (USGBC)
Aurora Winslade, University of Hawaii

Proposal Review Committee
Special thanks to the following people who volunteered to review the proposal submissions. Our diverse concurrent session schedule is thanks to their time and energy.

Leanne Bilodeau, University of British Columbia Okanagan Campus
Bill Brown, Indiana University
Sally DeLeon, University of Maryland
Steve Glazner, APPA (Leadership in Educational Facilities)
Michael Gulich, Purdue University
Trina Innes, University of Alberta
Scott Lupin, University of Maryland
Craig Nicolson, University of Massachusetts Amherst
David McIntyre, Vanasse Hangen Brustlin (VHB)
Mieko Ozeki, University of Vermont
Steve Peary, University of Vermont
Kate Richard, University of Maryland
Leith Sharp, Harvard School of Public Health (Center for Health and the Global Environment)
Mark Stewart, University of Maryland
Cynthia Thomashow, New Knowledge
Jaime Van Mourik, U.S. Green Building Council (USGBC)
Aurora Winslade, University of Hawaii

A big THANK YOU to our 2014 Smart and Sustainable sponsors!
This conference is a success because of their support.

Gold level sponsor
Waste Strategies

Silver level sponsors
AGREENOZZI
VHB - Vanasse Hangen Brustlin, Inc.
Washington Gas Energy Services (WGES)

Conference Staff & Volunteers
Bridget Chisholm
Sally DeLeon
Ashley Hocken
Andrew Muir
Mark Stewart
Laura Symanski
Aynsley Toews
Kate Richard
Dan Wray
Welcome to the 9th annual Smart and Sustainable Campuses Conference! The University of Maryland is again proud to host this event with the ongoing support of several partners.

This year’s conference is being held for the first time in Baltimore’s Inner Harbor. Like many older cities in the United States, Baltimore flourished due to its water access and grew upon its industries. From the early 18th century, the Inner Harbor led the nation in ship building and canning. In the 20th century, these industries gave way to steel manufacturing. Heavy industrial use of the waterfront led to a deterioration in water quality, and the buildings, piers, and infrastructure went into decline when businesses moved or closed.

Today’s Inner Harbor, which has transformed the City into a tourist destination, is rooted in redevelopment plans that began in the late 1950’s, long before the term “Smart Growth” was coined. Business and government came together to form a plan that eventually included 240 acres around the waterfront. In 1976, Tall Ships sailed into the Inner Harbor to mark the Bicentennial Celebration. The redevelopment continued when in 1980, the National Aquarium and Harborplace opened. Since then, Baltimore has continued to build upon its success with the nearby construction of Camden Yards (home of the Baltimore Orioles) and M&T Bank Stadium (home of the Baltimore Ravens), thousands of hotel rooms, and residences. It has also included many innovative projects such as the transformation of an old power plant into restaurants and a book store, and Pier 6, an outdoor music and entertainment venue.

Without question, Baltimore’s residents, businesses, and government officials shared their experiences, challenges, and lessons learned in preparing the early redevelopment plan and expanding upon its success. Such an undertaking required extensive collaboration and the resolution of conflicting interests.

The theme of this year’s conference is “Share Experience, Share Challenges, Share Learning, Share U.” Baltimore’s Inner Harbor is an excellent representation of this theme and is recognized as a world-class model of waterfront redevelopment. Colleges and universities are incubators of innovation and are most successful when based on collaboration. The Smart and Sustainable Campuses Conference is designed to provide a forum for just such sharing, collaboration, and learning.

The Program Committee values your attendance, the quality of your conference experience, and your opinions to shape this event and make improvements. Based on your feedback from the 2013 conference, changes to this year’s event include:

- Additional presentation sessions which are now 50-minutes instead of 40-minutes to allow for more in-depth discussion.
- Fewer keynote speakers and a new conference schedule.
- Larger breakout rooms.
- More time for networking.

We thank you for your joining us and look forward to your active participation in conference events. We hope you have a quality experience, make new connections, learn valuable lessons, and share ideas with colleagues at your schools and organizations so we may enjoy a more sustainable future.
Empowering higher education sustainability professionals.

With nearly 2,000 participants, AASHE’s annual conference is the largest gathering of higher education sustainability professionals and students in North America. In one of the most innovative sustainable cities in North America, attendees from around the world will come together at AASHE 2014 to network and share new innovations, activities, frameworks, learning outcomes, tools, strategies, research, theory and leadership initiatives that are changing the face of sustainability on their campus and surrounding communities.

http://conference.aashe.org/
A Carbon Neutral Conference

The Smart and Sustainable Campuses Conference continues its 8-year tradition of carbon neutrality. Thanks to a generous contribution from conference sponsor Washington Gas Energy Services (WGES), estimated greenhouse gas emissions from air travel, vehicle travel, long-distance bus and train travel, hotel stays, energy use, landfilled waste and paper use have been balanced to zero with WGES CleanSteps® Carbon Offsets.

In partnership with WGES, one of the largest energy suppliers in the Mid-Atlantic region, the conference is offsetting 80 tons of greenhouse gas emissions and contributing funds to new clean air and water projects managed by the Chesapeake Bay Foundation, an independent organization that works to restore and protect the ecological health of the Chesapeake Bay and its tributary rivers. WGES CleanSteps® Carbon Offsets have a global environmental impact by reducing greenhouse gas emissions, a local environmental impact by contributing to the health of the Chesapeake Bay Watershed through activities such as tree plantings, and a local economic impact by supporting offset projects in the Mid-Atlantic region. This year’s offsets were generated by taking trucks off highways in the Chesapeake Bay region and moving them via rail instead, and preventing the release of methane from a landfill near Hurlock, Maryland. To put the conference’s carbon offsets in perspective, reducing 80 tons of greenhouse gas emissions is equivalent to:

- Taking 16 passenger vehicles off the road for a year, or
- Converting more than 9 average homes to renewable power for a year, or
- Planting 333 trees in a typical Maryland forest, or
- Removing 90 tons of organic waste from the landfill and composting it.

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This program is printed on FSC-certified paper that is made of 100% post-consumer waste.
Charm City Circulator

This FREE Baltimore City shuttle consists of four separate routes but the Banner Route services much of the Inner Harbor to Fort McHenry. The busses are DesignLine 2009 EcoSaver IV LF Hybrid Electric vehicles—the first fleet of this type in a major metropolitan area.

Inner Harbor Map and Circulator Routes

Restaurants
1. Vacarro’s Italian Pastry Shop • 222 Albermarle St
   Gelato, famous cannolis, and a small café with sandwiches and salads.
2. Sobo Café • 6 W Cross St
   Breakfast and brunch with vegetarian options.
3. Liquid Earth • 1626 Aliceanna St
   Vegan and vegetarian made of locally-sourced, organic ingredients.
4. Riptide by the Bay • 1718 Thames St
   A crab house right on the harbor that uses local Chesapeake Bay seafood.
5. Isabella’s Brick Oven Pizza and Panini • 221 S High St
   Italian sandwiches, pizzas, and salads, including a meatless menu, in Little Italy.
6. Bistro One • 501 E Baltimore St
   Eat in or take out for breakfast, lunch, or dinner at this restaurant serving organic, local foods. Vegetarian options available.
7. Matsuri • 1105 S Charles St
   Sushi and Japanese food, with some vegetarian options.
8. Heavy Seas AleHouse • 1300 Bank St
   A local Baltimore brewery-restaurant.

Off Map:
9. Berger’s Bakery • 400 W Lexington St
   Try Baltimore’s famous Berger Cookies!
10. Faidley Seafood • 200 N Paca St
    Some of Baltimore’s best crab cakes.

Inner Harbor Map and Circulator Routes

Map showing Charm City Circulator routes with locations of various restaurants and attractions around the Inner Harbor.
The Hyatt Regency Baltimore’s entire staff is actively engaged in doing their part to help make the Earth a better place for us all to live. The hotel’s “Green Team” actively seeks to encourage both employees and guests to live a cleaner, greener lifestyle. With energy, waste, and communication teams in place, we strive daily to make a difference and to help make your meeting less of an impact on the environment.

The Hyatt Regency Baltimore takes actions to control heat, water, and electricity by using low flow shower heads, occupancy/motion sensing light switches, bio-degradable cleaning agents, and an elective linen re-use program. The kitchens feature locally sourced and organic food when possible, a pre-consumer composting program, and dietary offerings for vegan, vegetarian, and celiac lifestyles. The Hyatt Regency Baltimore is proud to provide single stream recycling bins for guests and staff.

Supporting the Local Farming Community

Working to ensure our meals are sourced from the local farming community can sometimes be a challenge. Our smart and sustainable hats are off to the Hyatt Regency Baltimore for making our jobs easier.

The Chef has been working with local suppliers to ensure that our nourishment during the conference is locally sourced as often as possible. Our menus feature produce and meat from the following local producers:

- **KCC Natural Farms Organic Chicken** - Harford, Maryland
- **Blue Ridge Hydro Lettuces** - Elkwood, Virginia
- **Hummingbird Farms Tomatoes** - Ridgeley, Maryland
- **McDowell’s Mushrooms** - Kennet Square, Pennsylvania
- **Firefly Farms Cheeses** - Bittinger, Maryland
- **Crown Orchard Apples** - Batesville, Virginia
- **Muzzarelli Farms Potatoes** - Vineland, New Jersey
- **Arc Greenhouse Micro Greens** - Vineland, New Jersey

We hope you enjoy your meals and we encourage you to work with your caterers, hotels, or convention centers to make sure the local farming community is your source for food and beverage.
Exhibit Hall

Please visit our exhibitors in the Constellation Ballroom Foyer.

1 VHB/Vanasse Hangen Brustlin Inc.
2 Waste Strategies
3 WGES/Washington Gas Energy Services
4 Food Recovery Network
5 FOR Solutions
10 XLNT Tint/Tint King
11 Sustainable Water
12 Dero Bike Racks
13 Kimberly-Clark Professional - The Healthy Schools Project
14 AGREENOZZI
15 GreenerU
16 Green World Strategies
17 Daycon Products
18 Busch Systems
19 Max-R

Conference Extras

City Lights Cocktail Night
Join us for cocktails, Monday 9:00-11:00pm, in the Pisces Room overlooking the Inner Harbor. Keep the networking going with a spectacular view of the city and harbor from the 15th floor of the hotel. Cash bar.

Yoga for Sustainable Bodies
Tuesday at 7:00am, Chesapeake AB, 3rd Floor. Get up and move, stretch, and heal. Registered Yoga Teacher, Adele Muir, will take you through a therapeutic practice that improves flexibility, promotes healing, and counters the physical impacts of sitting through sessions.

Student Scholarships
Thanks to scholarships provided by the University of Maryland, more than 20 students are able to participate in the conference!

Free WiFi
Free WiFi is available in public areas. Login to the Hyatt Public Network.

Twitter
Join the conversation! Tweet about your presentation or workshop. Share your thoughts on sessions you have attended or people you have met. Use @SmartandSustain.
Keynote and Plenary Speakers

OPENING KEYNOTE
Changing the Way We Think, To Create the World We Want
Frances Moore Lappé, Small Planet Institute

Monday at 9:00 am, Constellation Ballrooms AB

What if the ecological crisis were, at heart, a crisis of perception? Frances Moore Lappé will argue that much of what is wrong with the world, from our eroding soil to our eroding democracies, results from ways of thinking out of synch with human nature and nature’s rhythms. Humans are not couch potatoes or whiners, we are doers, she says. But our capacity for doing is undermined by seven “thought traps” that leave us mired in fear, guilt, and despair, none of which are motivators to action. Lappé will take us from “thought trap” to “thought leap,” and with each kaleidoscopic shift, challenges morph into opportunities.

Frances Moore Lappé is the author or co-author of 18 books including the three-million copy Diet for a Small Planet. Her most recent work, released by Nation Books in September 2011, is EcoMind: Changing the Way We Think to Create the World We Want, winner of a silver medal from the Independent Publisher Book Awards in the Environment/Ecology/Nature category. Jane Goodall called the book “powerful and inspiring.” She is the cofounder of three organizations, including Oakland based think tank Food First and, more recently, the Small Planet Institute, a collaborative network for research and popular education seeking to bring democracy to life.
In July 2009, Admiral Mike Mullen, then Chairman of the Joint Chiefs of Staff, asked Navy Captain Wayne Porter and Marine Colonel Mark Mykleby to develop some ideas around a grand strategy for the nation in the 21st Century. In response, Porter and Mykleby wrote “A National Strategic Narrative,” a concept paper that offered sustainability as the organizing logic for a new American grand strategy. Now at New America Foundation, Mykleby is working with Patrick Doherty to develop the “so what” of the National Strategic Narrative; creating the strategic construct to implement the concept of sustainability as the American grand strategic imperative.

Mark Mykleby was commissioned as a second lieutenant in the Marine Corps following his graduation from the United States Naval Academy in 1987. He was designated a naval aviator in April 1990 and as a qualified F/A-18 pilot in December 1990. From January 1991 to May 2006, he served in five fleet fighter squadrons and performed numerous operational squadron billets to include Director of Safety and Standardization, Pilot Training Officer, Aircraft Maintenance Officer, Operations Officer, Executive Officer, and Commanding Officer. Mark’s operational and combat experience includes numerous deployments (land based and ship borne) to the European, Pacific, and Southwest Asian theaters in support of Operations PROVIDE PROMISE, DENY FLIGHT, SOUTHERN WATCH, and IRAQI FREEDOM.

Cecilia V. Estolano is an expert in sustainable economic development and urban revitalization. She is co-founder of Estolano LeSar Perez Advisors LLC (ELP Advisors) which provides consulting services to public agencies, foundations, business associations, and other stakeholders seeking to grow thriving, healthy and vibrant communities. Ms. Estolano previously served as Chief Executive Officer of the Community Redevelopment Agency of the City of Los Angeles (CRA/LA).
## Conference-At-A-Glance

### SUNDAY, March 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>10:00 am</td>
<td>Pre-conference Workshop: <em>(Pre-registration required)</em></td>
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<td></td>
<td><strong>Cultivating an Eco-mind: Tools for Campus Transformation</strong></td>
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<td>Frances Moore Lappé and Aurora Winslade</td>
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<td>Frederick/Annapolis Room</td>
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<td>12:00 pm</td>
<td>Lunch</td>
<td>Baltimore Room</td>
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<tr>
<td>3:00 pm</td>
<td>Coffee Break</td>
<td>Outside Frederick/Annapolis Room</td>
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<tr>
<td>7:00 - 9:00 pm</td>
<td>Registration Open</td>
<td>2nd Floor Atrium &amp; Foyer</td>
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### MONDAY, March 3

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8:00 am</td>
<td>Breakfast and Registration Open</td>
<td>2nd Floor Atrium &amp; Foyer</td>
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<tr>
<td>9:00 am</td>
<td>Welcome from the University of Maryland, Carlo Colella, Vice President for Administration &amp; Finance</td>
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<td>Keynote Address: <em>Cultivating an Eco-mind</em>, Frances Moore Lappé, Small Planet Institute</td>
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<td>Constellation Ballrooms AB</td>
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<tr>
<td>10:30 am</td>
<td>Concurrent sessions and workshops</td>
<td>2nd and 3rd Floor Breakout Rooms</td>
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<tr>
<td>12:00 pm</td>
<td>Lunch</td>
<td>2nd Floor Atrium &amp; Foyer</td>
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<tr>
<td>1:30 pm</td>
<td>Afternoon Plenary: <em>Universities as a Resource and Facilitator for Resiliency in Socially Vulnerable Communities</em>, Cecilia Estolano, Estolano LeSar Perez Advisors</td>
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<td></td>
<td>Constellation Ballrooms AB</td>
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<tr>
<td>2:50 pm</td>
<td>Concurrent sessions and workshops</td>
<td>2nd and 3rd Floor Breakout Rooms</td>
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<tr>
<td>6:00 pm</td>
<td>Networking Reception and Poster Presentation</td>
<td>Atrium &amp; Foyer</td>
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<tr>
<td>9:00 - 11:00 pm</td>
<td>City Lights Cocktail Night</td>
<td>Pisces Room, 15th Floor</td>
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### TUESDAY, March 4

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<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00 am</td>
<td>Yoga for Sustainable Bodies</td>
<td>Chesapeake AB Room, 3rd Floor</td>
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<tr>
<td>7:30 am</td>
<td>Breakfast and Registration Open</td>
<td>2nd Floor Atrium &amp; Foyer</td>
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<tr>
<td>8:30 am</td>
<td>Concurrent sessions and workshops</td>
<td>2nd and 3rd Floor Breakout Rooms</td>
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<tr>
<td>11:40 am</td>
<td>Lunch</td>
<td>2nd Floor Atrium &amp; Foyer</td>
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<tr>
<td>1:00 pm</td>
<td>Closing Plenary: Sustainability: <em>An American Grand Strategy for the 21st Century</em>, Mark Mykleby, New America Foundation</td>
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<td>Constellation Ballrooms AB</td>
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<tr>
<td>2:30 pm</td>
<td>Concurrent sessions and workshops</td>
<td>2nd and 3rd Floor Breakout Rooms</td>
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<tr>
<td>4:30 pm</td>
<td>Johns Hopkins University Green Lab Tour <em>(Pre-registration required)</em></td>
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<td>Tour will run from 5:00 – 6:00pm and then the shuttle will return you to the hotel.</td>
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<tr>
<td>4:30 pm</td>
<td>National Aquarium Tour <em>(Pre-registration required)</em></td>
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<td>Tour will run from 5:00 – 6:00pm. Meet Tour Guides at the granite watershed map on the plaza in front of the Aquarium building.</td>
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<td>Walk from the Hyatt Regency Hotel to the National Aquarium.</td>
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### WEDNESDAY, March 5

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<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>10:00 am</td>
<td>Post-conference Workshop: <em>(Pre-registration required)</em></td>
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<td><strong>Driving Your Social Strategy</strong></td>
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<td>Anthony Shop</td>
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<td>Frederick/Annapolis Room</td>
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<td>12:00 pm</td>
<td>Lunch</td>
<td>Baltimore Room</td>
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<td>3:00 pm</td>
<td>Coffee Break</td>
<td>Outside Frederick/Annapolis Room</td>
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Poster Session

Monday, 6 pm, Atrium and Foyer

Tailgate Recycling: Tackling Recycling While Developing Student Leaders
Lauren Fedele, Jennifer Hobson, University of Texas at Austin

Greenhouse Gas Accounting and Sustainable Innovation in Campus Operations
Bethany Bender, Andrew Gates, Messiah College

Occasional Behavior and Net-Zero: Buildings Don’t Consume Energy, People Do
Greg Mella, Sara Lappano, SmithGroupJJR

Integrating Natural Spaces in Multiple Disciplines
Kristen Crossney, Ellen Keating, Beau Ryck, West Chester University

Coalitions and Alliances to Increase Student Sustainability Involvement and Awareness
“Wolf” Mark Veverka, Jessica Urbonas, The Student Organization for Sustainability

From Trash to Treasure: Achieving Diversion and Encouraging Student Engagement
Dominica Whitesell, Jennifer Hobson, University of Texas at Austin

Student Leaders Generate Energy Savings
Merrilee Harrigan, Alliance to Save Energy
Christian Ryan-Downing, Western Kentucky University

Giving, Learning, Growing: Caritas et Veritas the Sustainable Way
Elena Maans, Dominican University

Integrated Water & Energy Monitoring of WaterSheds’ Living Technologies
Scott Tjaden, University of Maryland

What you can see, you can achieve.

Bring visibility to your sustainability objectives.

- Waste Stream Audits
- Regulatory Compliance Tracking
- Environmental Dashboards
- Interactive Self-Audit Tools

Curtis Patton, Director Operations
cpatton@wastestrategies.com
O/F: 866.241.1134
CEL: 202.604.8676

www.wastestrategies.com
## Concurrent Sessions

**MONDAY March 3, 2014**

<table>
<thead>
<tr>
<th>Time</th>
<th>Ballroom C</th>
<th>Ballroom D</th>
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<td>2:50</td>
<td>Strategies and Solutions for Campus Adaptation to Climate-Related Challenges</td>
<td>Sustainable Purchasing: Creating a “LEED” for Procurement</td>
<td>On-Campus Sustainable Food: Planning and Implementation</td>
<td>Learning and Living Sustainable Practices: Thrive in a Green World!</td>
<td>Integrating Education, Maintenance, and Environmental Awareness through Campus Landscape Mapping</td>
<td>Practical Sustainability in Campus Landscape Master Plan Development and Implementation</td>
<td>Footprinting the Supply Chain: Shifting Priorities at Portland Community College</td>
<td>You’ve Made Your Bed...You’ll Have to Lie In It</td>
<td>Lessons from the Front Porch: University Tailgate Recycling</td>
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<td>Social Sustainability — Part B: It’s the Third Leg, Not the Third Rail</td>
<td>Rethinking the Campus Landscape: Sustainable Stormwater Management Strategies at Butler University</td>
<td>Application of a Heat Machine</td>
<td>I’ve Seen the Future of Higher Ed...And It’s Shareable U</td>
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The academic library community has embraced the notion of sustainability. Articles and books recommend “greening” the library through better building design and the adoption of less wasteful practices. The increasing prevalence of extreme weather events, however, dictates that academic libraries become more than sustainable - they must be resilient. This presentation will identify and recommend strategies for creating collections and services to support the needs of researchers, educators, and students confronting dramatic changes in the environment. It will also touch on the presenter’s experiences working at an institution affected by Hurricane Sandy.

With the total energy consumption of buildings in the U.S. exceeding 40% of all energy consumed, the existing building stock is increasingly receiving the attention it deserves — and demands. The recently renovated, net-zero-ready, USGBC LEED Platinum certified George D. Aiken Center on the University of Vermont campus is among the most energy efficient renovations in American higher education. A “deep energy retrofit” was conducted; renewable energy was installed to decrease dependence on fossil fuels, and innovative water treatment technologies offer real-time solutions. Learn about the approach that was utilized to plan and construct a super-high performing renovated building.

Participants will discuss social and environmental issues related to consumer electronic equipment. The presenter will summarize resources for addressing sustainability challenges at the cradle level (mining and manufacturing) and the grave level (end-of-life disposal) of common electronic equipment like computers, smartphones, and tablets. Participants will walk through a checklist of key questions to consider for working with procurement professionals to develop initiatives for responsible sourcing of metals and minerals. The presenter will also give consideration to the whole life cycle of typical information technology products to highlight campus-centered opportunities for strengthening reuse and recycling, and supporting improved management of e-waste.

The Energy Audit 101 Roadshow teaches beginners how to quantify energy use and identify low-cost and no-cost energy retrofits. The Roadshow covers basic energy concepts, how to calculate energy use and savings, and steps involved in a comprehensive energy audit. Presenters provide practical information on campus projects, including planning, action steps, results, and evaluations. Following the presentation, participants receive a hands-on training using standard auditing tools. This session reveals how energy efficiency uncovers immediate energy savings with no upfront investment, while offering students opportunities to gain new skills, setting them apart as they enter an increasingly competitive job market.
80-Minute Concurrent Workshops

**MONDAY**

**10:30AM**

**TRACK: Adaptation and Resilience**

**Preparing for a Changing Climate: Creating the Blueprint for High Impact Campus & Community Resilience**  Ballroom C

Anne Waple, Second Nature
Peter Bardaglio, Tompkins County Climate Protection Initiative

This outcomes-focused workshop will create a blueprint for mobilizing higher education and surrounding communities around climate preparedness and resilience. Emphasizing building connections between campus and community and making critical research/student engagement connections, practitioners from the campus and community perspectives will present an action list of potential leadership-level opportunities for campuses to enact resilience efforts. From vulnerability assessments to sector-specific analysis on green building, water, heating and cooling, social and health impacts, ecosystems vulnerability, and research/educational potential, participants will identify which existing resources can be leveraged to accelerate climate preparedness, and gaps for new resource development prioritized by urgency and use.

**TRACK: Change Management and Implementation**

**Greening Athletics: Challenges and Opportunities**  Ballroom D

Jennifer Hobson, Lauren Fedele, University of Texas at Austin

Colleges and universities throughout the country are steadily incorporating sustainability into athletics operations, yet there are still many universities that are hitting roadblocks. While case studies are useful, this workshop, using a World Café format, addresses common hurdles to the greening athletics process as well as strategies to address these challenges.

**TRACK: Change Management and Implementation**

**Tasked with Meeting Your Institution’s Lofty Carbon Reduction Goals?**  Ballroom E

Ed Kirk, Johns Hopkins University

The scenario: several years back, and with much fan-fare, your institution announced some lofty carbon reduction goals. Now, a quick review shows that the targets will not be met unless major energy reduction can be achieved, and soon. Where do you start?

**TRACK: The Campus as a Learning Laboratory**

**Fostering Just, Sustainable Communities through Engaged Learning and Community Partnerships**  Ballroom F

Lauren Berutich, Rosemary Logan, Elizabeth Bechok, Northern Arizona University

Northern Arizona University’s innovative program in civic engagement is creating ripples across campus and in the surrounding Flagstaff community in celebration of just, sustainable community development. In its fifth year, the First Year Seminar-ARTs (Action Research Teams) Program has resulted in dramatic increases in student engagement and academic achievement, with recent research results indicating a 7-16% increase in retention, depending on student demographic. Attendees will develop their own public narrative, conduct relational meetings, learn the art of issue development, and create power maps.
**MONDAY**: 11:40 AM

**TRACK: Change Management and Implementation**

**Embracing Stakeholders as a Strategy for Institutional Change Management**

Claudia Frere, University of Washington

This presentation focuses on strategic change management through collaboration with the university’s administration, academic schools/colleges, and students. It is imperative to foster sustainability through an institutional approach that continually embraces multiple stakeholders as a part of the process. Learn how to implement strategies, minimize risk, and foster collaboration within the university setting. Engage in dialogue with leaders who have been involved with embedding sustainability into the university.

**TRACK: The Built Environment**

**Energy Star Is So 1990s: Re-thinking Energy on Campus**

Jessica Nardi, The Universities at Shady Grove
John Jabara, Savenia Labs

Universities often purchase Energy Star equipment for their campuses. But many products are not rated, and big differences are emerging within Energy Star categories. The Universities at Shady Grove has partnered with Savenia Labs®, an independent testing laboratory, to support our procurement and sustainability initiatives while saving energy on appliances and electrical items. Through this collaboration, we purchased the most energy efficient appliances and used the campus as a living laboratory to educate our community about the importance of energy efficiency and life-cycle analysis both at school and in daily life.

**TRACK: Social Sustainability**

**Confluence of Cultures: Resilience in the Faculty Body through Inclusivity**

Edward DesPlas, Dallas County Community College District
David Browning, El Centro College

Got diversity? Does (white faculty + white hiring committees) x inflated minimum requirements = white faculty hires? Predominantly white faculty bodies met the needs of classrooms in the 70s and 80s when most of the students were also white. Moving into the 90s, the student body rapidly became more diverse, increasing pressures for inclusivity and cultural competence to provide for the classroom then, now, and into the future. The Visiting Scholars program has improved social sustainability in the Dallas County Community Colleges’ faculty body, enabling DCCCD to better satisfy seven human needs: subsistence, protection, understanding, participation, creation, identity, and freedom.

**TRACK: The Campus as a Learning Laboratory**

**Measuring Sustainability Literacy 2.0**

Carl Obermiller, Seattle University
Mark Stewart, University of Maryland

At Seattle University, an objective scale was developed to assess sustainability literacy, which is defined as a multi-dimensional construct. The scale is intended to reflect a “knowledge -> attitudes -> behavior” framework. The scale was administered twice, and psychometric analyses were conducted to assess the scale’s validity and usefulness. Mark Stewart will provide a counterpoint, comparing and contrasting the work he has done for Ohio State and University of Maryland. Both speakers will discuss ongoing challenges and efforts to move forward. The session will conclude with a call for suggested measures of sustainable thinking that assess higher levels of learning.
Beginning in the new millennium, Bucks County Community College entered onto a pathway toward sustainability. Presenters will provide insight on their sustainable initiatives along with the expansion of an environmentally concerned campus culture. The presentation will relate best practices of sustainability in both new and old construction on three campuses as well as how to leverage college-wide sustainability practices as “teachable moments” in the academic curriculum and through campus-wide activities.

Shrinking budgets require Facilities Managers to create tools to educate and communicate with their customers, better manage their resources, and make data driven decisions about storm water, irrigation management, pollution reduction, and carbon sequestration. In this session the presenters will show how they used open source programming to provide their customers with search, sort, and navigational functions to find campus trees from desktop or mobile devices. The audience will appreciate the potential of online tree inventories in education, management, and environmental awareness. They will understand the commitment required to create tree inventories to help facilitate management decisions regarding sustainable development.

The ACUPCC Implementation Liaison Networking Meeting is an interactive workshop designed to allow personnel at signatory institutions of the American College & University Presidents’ Climate Commitment (ACUPCC) to make connections, share stories, and create a comprehensive learning network across the ACUPCC. The meeting is an opportunity to participate in intensive group discussions to identify opportunities and explore solutions for ACUPCC implementation, including reporting challenges, leadership transitions, Climate Action Planning, greenhouse gas inventory completion, and tracking progress of mitigation and education programs. This meeting is open to Implementation Liaisons and other staff involved in the ACUPCC related activities on campus.

Bolder by Design is a strategic and values-based framework designed to engage the university in a transformative journey toward sustainability through the application of six imperatives: enhance the student experience, enrich community, expand international reach, increase research opportunities, strengthen stewardship, and become a high-performance organization. This session will explore the potential impact on the effectiveness of campus-wide, community, or departmental sustainability initiatives, through the adoption of adaptive network structures specific to the creation sustainability project teams.
In a time when the changing climate is presenting communities with challenges they may not be prepared to handle, colleges and universities should serve as models of adaptation in order to demonstrate how communities can become resilient on their own. Resilience and adaptation require the different departments and populations that make up a campus to coordinate their concerns during emergencies, by participating in a cohesive plan that provides solutions to their diverse needs. In this workshop, participants will identify regional climate issues, conduct risk assessments, identify the key players, consider solutions, and develop plans needed to recover from disruptive situations.

The potential benefits of sustainable purchasing remain largely unrealized. This workshop will review common barriers to implementing sustainable purchasing programs and the new approach being undertaken by the Sustainable Purchasing Leadership Council. Attendees will participate in visioning for their own sustainable purchasing programs.

Looking to increase the sustainability of your campus food system? From assessing food data to increasing stakeholder involvement, changing sustainable food practices can be daunting. This workshop will provide participants with a diverse set of frameworks and tools for sustainable food planning and implementation, including: 1) identifying factors your campus might consider when defining and categorizing sustainable food; 2) cataloging your campus’ accomplishments and potential resources and assets at your disposal; and 3) identifying tangible next steps to move your sustainable food program forward. Participants will be encouraged to share their obstacles and best practices.

Campus diversity and sustainability officers generally have similar values and ideals — but may be separated by different priorities, passions, and histories, among other things. However, successful sustainability initiatives require a strong and inclusive presence in the social justice arena. This session will draw on a similar workshop at last year’s AASHE conference by further examining commonalities and differences between these two functional units and identifying ways to better bridge them together.
50-Minute Concurrent Presentations

MONDAY 4:00PM

**TRACK: The Campus as a Learning Laboratory**

**Engaging Faculty in Sustainability**
Morgan Johnston, University of Illinois at Urbana-Champaign  
Kevin Adkins, Connie Frey Spurlock, Southern Illinois University Edwardsville

To achieve a truly sustainable campus, expertise from all corners of campus needs to be brought together, while providing learning opportunities for students. The University of Illinois at Urbana-Champaign and Southern Illinois University Edwardsville have both established faculty fellowships to further sustainability on their respective campuses by bringing together faculty and facilities personnel. These two Faculty Fellow programs are quite different in how they are designed. The presentation will include a description of each program; the process for establishing a fellowship; methods for influencing academic curriculum; and an overview of related projects and research.

**TRACK: The Built Environment**

**Practical Sustainability in Campus Landscape Master Plan Development and Implementation**
J. Thomas Becker, Kimberlee Douglas, Philadelphia University  
Steve Sproles, Derck & Edson

In the process of developing landscape master plans for a variety of college and university campuses, achieving lasting sustainability often encompasses more than healthy, low-maintenance plantings. Practical solutions to a wide range of divergent issues need to be applied in order to manage limited resources (human and budgetary), build consensus among a diverse range of stakeholders, and achieve the most successful results across a range of project types, all within real-world constraints. We will share our experiences developing environmentally and fiscally sound campus landscapes, highlighting the creation and implementation of the Philadelphia University landscape master plan.

**TRACK: Change Management and Implementation**

**Footprinting the Supply Chain: Shifting Priorities at Portland Community College**
Erin Stanforth, Briar Schoon, Portland Community College

As an ACUPCC signatory, Portland Community College is required to report on its GHG footprint. Beginning in 2011, PCC used Good Company’s Carbon Calculator to generate a more comprehensive GHG inventory, including emissions associated with supply chain purchases, to better inform its Climate Action Plan and the Sustainability Council’s strategic planning. This required interacting with departments not previously engaged in sustainability and developing new systems to analyze the college’s purchasing data. Join us to hear about our process and how this resulted in restructuring the Climate Action Plan and Sustainability Council to better address the school’s carbon footprint.

**TRACK: The Campus as a Learning Laboratory**

**You’ve Made Your Bed...You’ll Have to Lie In It**
Brooke Moreland-Williams, Indiana University-Bloomington

Being sustainable is something that must be taught so that individuals possess the ability to maintain “healthy ecosystems and environments that provide vital goods and services to humans and other organisms,” (Scott-Cato, 2009). By attending this session, paraprofessionals and professionals will be able to bring back helpful information to their home institutions, including possible programming and initiatives to positively impact their students and strategies/recommendations to integrate sustainability into the educational experiences of students who live within the residence centers.

continued >>>
Monday, March 3

50-Minute Concurrent Presentations

MONDAY 4:30PM

Track: Change Management and Implementation

Lessons from the Front Porch: University Tailgate Recycling
Michael Gulich, Purdue University
Dave VanDeventer, Clemson University
Jonathan Hoge, The Ohio State University
Beth Schmitt, Alcoa Recycling

“Athletics are the front porch of the university. It’s not the most important room in the house, but it is the most visible.” Given the profile of college football, the tailgate is the ideal setting for sustainability engagement with the campus community. In 2012, Alcoa Foundation gave grants to The Ohio State University, Clemson University, and Purdue University to improve tailgate recycling programs through innovative strategies. These three universities will share the lessons they learned over the 2012 and 2013 football seasons, including volunteer and fan engagement, methods to distribute recycling bags to tailgaters, and post-game collection logistics.

Track: The Campus as a Learning Laboratory

The North American Sustainability Sciences Road Map Project
Naomi Krogman, University of Alberta
Gary Machlis, Clemson University

The North American Sustainability Sciences Road Map Project aims to provide a vision for the sustainability sciences (natural and social sciences) and education at higher education institutions in Canada and the US for 2015-2025. The objectives of the Road Map project are to identify future directions and opportunities for the sustainability sciences and education at universities and colleges, and identify strategies that can encourage progress toward those futures. This workshop will provide participants an interactive opportunity to contribute to the Road Map Project, and a model for similar efforts on their campuses.

80-Minute Concurrent Workshops

MONDAY 4:00PM

Track: The Campus as a Learning Laboratory

The North American Sustainability Sciences Road Map Project
Naomi Krogman, University of Alberta
Gary Machlis, Clemson University

Track: Change Management and Implementation

Courageous Conversations - Turning Enemies into Allies
Bonny Bentzin, Sustainability Consulting and Implementation
Aurora Winslade, University of Hawaii

As change agents, difficult conversations are unavoidably part of our day-to-day work. This workshop will provide participants with the space to learn and practice some tactics for having those difficult conversations that are a part of making change happen within our institutions. Participants will play an active role in this session and leave with a deeper understanding of how to successfully take responsibility for their role in such conversations and equipped with practical tools for effective communication. This session has been offered at AASHE 2012 and 2013 with great results.

Communications Planning: Methods of Strategic Outreach
Kevin Ordean, Nick Koressel, Avi Henn, Northern Arizona University

Communications planning requires us to go beyond reactionary postings in our social media channels. This workshop will allow an in-depth creation of your communications planning document. Bring relevant dates and headlines you want to release to your community. Identify partnerships that will serve as new directions to push your message. Participants should bring a digital device capable of opening text files and accessing the Internet. We will explore actual case studies of what happens through poor sustainability-related communications and address the simple fixes that could have made the process smoother.

continued >>>
**80-Minute Concurrent Workshops continued**

**MONDAY**

**4:30PM**

**TRACK: Social Sustainability**

**Social Sustainability – Part B: It’s the Third Leg, Not the Third Rail**

Ballroom F

Chris O’Brien, American University
Cindy Shea, University of North Carolina Chapel Hill

People, planet and prosperity; or social, environmental and financial. Variations of this triumvirate comprise the so-called three-legged stool of sustainability. But are campus sustainability programs really integrating all three legs of the stool? In this session, we will explore the “social” side of sustainability. Two schools will present efforts to address 1. diversity and affordability, and 2. equity through international trade (sweatshop-free and fair trade goods, and the community impacts of a carbon offset project). Then we investigate the “social” credits in STARS through an interactive workshop designed to discover opportunities for better aligning social and environmental programs on campus.

**50-Minute Concurrent Presentations**

**MONDAY**

**5:10PM**

**TRACK: Adaptation and Resilience**

**Rethinking the Campus Landscape: Sustainable Stormwater Management Strategies at Butler University**

Annapolis Room

John Hazlett, Williams Creek Consulting
McKenzie Beverage, Butler University

Butler University’s 290 acre campus in Indianapolis, Indiana, consists of 64 acres of impervious area and is located adjacent to the Indiana Central Canal and White River. The majority of Butler’s stormwater discharges directly to these waterways. Butler is actively reducing its water footprint through existing and planned green infrastructure practices which support the Campus Master Plan and the Climate Action Plan developed for the ACUPCC. The presentation will demonstrate the use of green infrastructure at various scales on an urban campus and show how green infrastructure can be successfully integrated into a university’s capital project and educational programming.

**TRACK: The Built Environment**

**Application of a Heat Machine**

Baltimore Room

Franklin Mark Cowherd, University of Alabama Huntsville
Jeffrey Kevin Mims, Mims Engineering

In May 2013 two nominal 200 ton heat machines were brought on line at the University of Alabama Huntsville Central Plant. To date they are credited with saving over 1.4 million gallons of water and over 90,000 therms of natural gas. This is equivalent to 478 tons of CO2. In addition to allowing the boilers to be turned off during the warmer months (for the first time in 22 years) the heat machines have also enhanced the operation of the chilled water plant. The application of these heat machines is presented here.

**TRACK: Social Sustainability**

**I’ve Seen the Future of Higher Ed...And It’s Shareable U**

Columbia Room

Sonia Marcus, Emma Hutchens, University of North Carolina Asheville
Neal Gorenflo, Shareable Magazine

Burdened by runaway costs, unsustainable infrastructure, tuition increases, declining budgets, and outmoded degree programs, colleges and universities are struggling to satisfy the needs of current patrons, let alone cater to a global student population expected to double by 2025. Built right into a university’s DNA, however, is the key to its evolution and its survival: the sharing of knowledge, the sharing of resources, and the sharing of power. From student-run cooperatives to waste recovery networks, peer-to-peer lending to MOOCs, a radical reengineering is underway. It’s Shareable U: part campus sustainability, part new economics, part DIY, and part open education.

*continued >>>*
Looking to get your students involved with tangible sustainability projects on campus and in the community? At Eastern, students, faculty, and staff are working together to ensure that students are getting hands-on experiential learning through a variety of approaches. From students developing a campus map highlighting sustainability features, to involvement with teaching and learning with local K-12 students at the campus community garden, students at Eastern are being recognized as really getting their hands dirty. Students, faculty, and staff are welcome to attend to learn about these projects as well as how Eastern is adding service learning to student transcripts.

Fume hoods are an essential tool in a laboratory. However, this safety device comes with a hefty price. In one year a typical fume hood consumes the same amount of energy as 3.5 family-sized homes. The Alliance to Save Energy works with campuses across the country to run Fume Hood Behavior Change Campaigns, reducing energy use and exploring retrofits or de-commissioning of unneeded hoods. This workshop explores what the Alliance has learned about implementing Fume Hood Behavior Change Campaigns and what you can do to impact fume hood energy use on your campus.

**Create a Campus Sharing Program**

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Society and the environment are coupled in a complex, adaptive system. Thriving sustainably in a chaotic, resource-constrained world will require cross-party collaboration and innovation. At this session you will: learn how to apply participatory planning techniques that consider uncertainty and identify a range of alternative futures, including risks and opportunities; understand how to create robust, adaptive strategies to help your organization withstand shocks, adapt to change, and endure, while conserving the environment upon which we depend; and understand the differences and synergies among sustainability, resilience, adaptation, and transformation, and how to think about them holistically to benefit your organization.

Does conflict follow you around? Is it possible to have peace within an organization? Conflict within workgroups and organizations is inevitable. Individuals fight with other individuals; groups fight with other groups, etc. However, understanding the underlying issues of conflicts may help bring parties and individuals together to work collaboratively and bring about substantive change to everyone involved. Increasingly, we are called to be peacemakers in our organizations. How equipped are we to assist people to work collaboratively? Is that something that each of us should ascribe to or is that even in the realm of possibility?

Sustainability Internship Programs (SIPs) present unique opportunities to integrate rigorous academic experiences in campus operations, engage operational staff in the academic mission, enhance the capacity of campus sustainability staff, and empower students with critical professional skills. For two years, a group of sustainability professionals have been working in conjunction with AASHE to conduct interviews and workshops with campus SIP administrators with the intention of compiling findings into a guide for creating and managing SIPs. This session will present the guide findings and toolkit, then engage participants in best practice and resource sharing.

Our team will present Cornell University’s Human Ecology Building as a case study focusing on elements of shared sustainability. The team will cover ideas we have implemented that could be applied to many campus projects. This includes use of natural resources, site planning strategies, and implementation of shared campus energy models. During each sharing topic, the team will invite the audience to “share” their implemented and blue sky shared resource ideas. The Human Ecology Building is a USGBC LEED Platinum building and a model of campus sustainability. The presentation is best suited to institutions outside an urban setting.

continued >>>
Tuesday, March 4

50-Minute Concurrent Presentations continued

**TRACK: The Campus as a Learning Laboratory**

**Bottom Up Environmentalism: Enabling Students to Teach Students**

Starr Brainard, Samantha Kenny, American University

Pratt/Calvert Room

American University students will present on the individual, group, and campus levels of student involvement in regards to sustainability. Case studies from the American University experience will be used to teach participants how to facilitate maximum involvement from their student body. Participants will learn how to engage the student body through resource availability (funding, space, and opportunities), identify the unique benefits offered by different kinds of student organizations, and network students with students from other campuses.

80-Minute Concurrent Workshops

**TRACK: The Campus as a Learning Laboratory**

**Learning Spaces: Guide for Planning/Assessing Spaces for 21st Century Learners**

Jeanne Narum, Learning Spaces Collaboratory/Independent Colleges Office  
Cathy Wolfe, George Mason University  
Sally Grans Korsh, National Association of College and University Business Officers  
Jim Determan, Hord Coplan Macht, Inc.

Ballroom C

The Guide for Planning Learning Spaces has been developed by the Learning Spaces Collaboratory. It is a robust document; each perspective of facilities, finance, and design will be presented. Designed around key questions to be addressed by faculty, architects, budget, and facilities officers, it informs how to improve basic utilization/planning issues for smart growth/renovation: how learning happens, what spaces nurture 21st century learners, and assessing the impact space on students, faculty, and on the institution as a whole.

**TRACK: Change Management and Implementation**

**Using Best Practices to Maximize Move Out Collection Drives**

Alec Cooley, Keep America Beautiful  
Lisa Heller Boragine, Cape Cod Community College

Ballroom D

The session will involve an interactive discussion around best practices for organizing an end of the year collection drive from campus housing. Many colleges attempt to collect clothing, non-perishable foods, and other household goods from departing students with mixed results. Collection drives are often a low priority for housing administrators, and student interns and volunteers are preoccupied with finals and saying goodbye to friends. Session facilitators will review best practices and solicit attendee input on the challenges and solutions to marketing outreach, collection logistics, advance planning process, sales to the public, and other aspects of running a successful program.

continued >>>
Penn State’s Sustainability Institute (SI) led an unprecedented effort this academic year to integrate sustainability into every unit. With 24 campuses, 12 academic colleges, and 11 major support units serving over 90,000 students and 40,000 employees, this was no small undertaking. SI partnered with the University’s Office of Planning and Institutional Assessment to implement the initiative. SI created a number of resources including a STARS-based online assessment tool and a Sustainability Planning Guidebook for Teams. Also critical to the effort was a defined process for supporting units and a program evaluation led by a group of Penn State MBA students.

Sustainability goes beyond operations and energy management in higher education and should increasingly focus on social justice. This presentation will explore the use of sustainability as a lens for change in the provision of student services. It will also encourage participants to explore how to build and develop the key connections and alliances to encourage student services to think increasingly of growth in terms of sustainability. The session will use practical, hands-on scenarios (exploding mental health needs, support of diversity in residences, rethinking access to learning, etc.) to identify the ‘sustainability’ component in the management of student services.

We learn what we live. This apparent truism has provided a persuasive rationale for emphasizing sustainability in campus operations. There’s one problem. The vast majority of institutions and individuals are not modeling sustainability; we are modeling less un-sustainability. In this session we re-center the curriculum and ask: How do we educate students for the unprecedented challenge of redesigning everything, including our culture’s narratives about what education’s purpose (i.e. it is not just about career training)? We will look at one initiative to transform a general education program in a way that acknowledges the full scale and urgency of the challenge.

Two leading universities have piloted and implemented the innovative web-based tools, Practically Green and One Million Acts of Green, building upon their experience with simple checklists to broaden the community engaged in sustainability actions. These tools can be used to build a comprehensive approach to behavior change for students, employees, and researchers. This session will use the insights from these experiences to help sustainability professionals understand the advantages, disadvantages and barriers to these tools, and strategies to overcome those barriers. Attendees will leave better prepared to select and advocate for the best-fit program for their institution.
**Tuesday, March 4**

**50-Minute Concurrent Presentations continued**

**TRACK: The Campus as a Learning Laboratory**

**Campus Dining: A Hotbed for Sustainability Research and Course Work**
Enid Cardinal, Scott Vadney, Rochester Institute of Technology

Columbia Room

What do you get when you take a 10,780 square-foot dining center serving 2,200 meals per day and a dining manager passionate about sustainability? Answer: a giant playground for student research, project-based learning, and the perfect place to pilot initiatives. This session will delve into how Rochester Institute of Technology is leveraging student research projects to advance aggressive waste reduction goals, including a recent class project assessing product packaging of common food purchases. Through this conversation, participants will learn how to work with dining services to develop a research agenda that advances sustainability goals and enhances students’ learning experience.

**TRACK: The Built Environment**

**The PGMS Accreditation Program – Grounds Management Meeting the Sustainability Challenge**
Joseph Jackson, Professional Grounds Management Society
Michael Loftus, University of Delaware

Frederick Room

The Professional Grounds Management Society (PGMS) has initiated a new and dynamic program that evaluates campus properties utilizing a robust environmental management systems approach applied to a grounds management template. With the use of peer expertise, this program rates the overall preparedness and effectiveness of the campus grounds component to produce sites that are attractive, healthy, of high quality, and sustainable with the implementation of excellent grounds maintenance standards and best practices. This session will explain the methodology used for the program and discuss how it can foster a higher level of acceptance and competency within a grounds maintenance organization.

**TRACK: The Campus as a Learning Laboratory**

**Green Events: Engaging Students in Sustainable Practice through On-Campus Event Planning**
Wesley Beckner, Jennifer Hobson, University of Texas at Austin

Pratt/Calvert Room

At a large, diverse university, it is difficult to meaningfully engage students in sustainability. In an attempt to mainstream sustainability while developing sustainability-minded student leaders across campus, the Campus Environmental Center (CEC) at the University of Texas at Austin developed Green Events, a student-led consulting service that teaches students how to make their events more sustainable. In the year since Green Events was launched, it has worked with a wide range of organizations and events, instructing students on how and why incorporating sustainability into their organizations and lives is beneficial.
Building sustainable communities is an important challenge faced by millennials. Transitioning from hyper-consumption to smart consumption is imperative to a more sustainable future. Campuses offer a unique opportunity to incubate consumer behavior change. To cross to the mainstream, new behaviors must be adopted during college years. Tradepal’s online peer to peer marketplace makes reuse convenient for students on campus. The workshop will introduce strategies leveraging technology as a tool for engaging students while promoting financial and environmental sustainability. Discussions will cover the benefits of peer to peer redistribution, community engagement, and gamification through carbon savings.

This session invites teams of young people to co-create strategies to meaningfully connect with students 15-24, enlisting them to become change agents and problem solvers. This session will be interactive and student led. Our goal is for participants to leave the session with a plan to engage thousands of young people in co-creating a vision for future and steps to achieve the dream. No meaningful change happens without young people being involved. To find solutions to the many challenges facing our planet, communities, and individuals, all voices are needed at the table. Bring your voice, opinion, passion, understanding, and energy.

A growing number of students, faculty, and staff are increasingly concerned about their environmental impacts and demand immediate action to be taken. Despite good intentions, these same people can act in haste rather than strategically implementing a long term solution. This session will provide participants with the tools, based on systems thinking, and project management practices to identify opportunities for collaboration and mitigating/managing risk.

The workshop will briefly review the current research on workplace dynamics and gender roles. Participants will respond to a series of questions which address gender dynamics, the female leadership gap, advocating for oneself, and changing the current work environment to become a sustainable place that moves away from the traditional 9-5, to an environment which is flexible and supportive of life beyond the desk. Based on the discussion attendees will map out visually individualized action plans for moving forward. This session is complemented by Building a Community of Change workshop and may be taken alone or in sequence.
50-Minute Concurrent Presentations

**TRACK: The Built Environment**

**The Story of Reuse at Michigan State University**
Ann Erhardt, James Ives, Michigan State University

A surplus operation creates opportunities to manage cost and mitigate supply issues. It also is an educational outlet for the campus stakeholders and surrounding communities. Implementing highest and best use practices, institutions are able to maximize the efficient use of resources through recovery of materials with consideration to social, economic and environmental impacts. The benefits provide the highest value per pound for materials and quality goods at reduced costs. By attending this session, you will discover how different types of reuse, resale, and landfill diversion can benefit your institution environmentally and economically, and how it aligns with broader sustainability initiatives.

**TRACK: Change Management and Implementation**

**DEEP: Realizing Behavior Change from an Energy Saving Outreach Campaign**
Gretchen Gerlach, Brown University
Ben Datema, GreenerU

Sustainability partners on campus use important and limited resources on sustainability outreach programs, yet there is little data that clearly demonstrates the value of these efforts. In an attempt to measure the outcomes of these programs, GreenerU and Brown University partnered in a study called the Dorm Energy and Efficiency Project (DEEP). DEEP has three parallel goals based on engaging students in energy conservation skills and habits. Facilities used energy data, open-window observations, and a student survey as metrics for the program. In its third year, the program has shown key results that will provide insight to our peer institutions.

**TRACK: Social Sustainability**

**University-Community Farmers Market Partnership Promotes Local Food for Everyone**
Christian Ryan-Downing, Western Kentucky University

The south-central Kentucky Local Food For Everyone initiative, which was formed through a partnership between Western Kentucky University and the Community Farmers Market, promotes the production and consumption of fresh, local, and healthy food. Through a USDA Farmers Market Promotion Program grant, the initiative leverages the university’s sustainability program to develop partnerships between local farmers, organizations, and state agencies to form a cohesive local food system that serves everyone, regardless of education, ability, or socio-economic status.

**TRACK: The Built Environment**

**APPA's Sustainability Award Winner American University Showcases Its Award Submission**
Christina Hills, APPA
Emily Curley, American University

Join us as we discuss APPA’s Sustainability Award program in partnership with last year’s winner, American University. APPA’s Sustainability Award recognizes the facilities management department that has integrated sustainable policies and “green” practices throughout all facets of the organization and embedded them within the educational institution. American University will share its award submission strategies by focusing on numerous sustainability initiatives and programs as well as challenges and lessons learned. In particular, the focus will be on operations and maintenance, energy, and new construction. APPA will also highlight the specifics of the award criteria and submission process.

*continued >>>*
**50-Minute Concurrent Presentations continued**

**TRACK: Change Management and Implementation**

**Post-Consumer Compost Pilot - Lessons Learned**
Dan Wray, Allison Lilly, Adrienne Small, University of Maryland

The Stamp Student Union averages 17,000 daily visitors and in fall 2012 piloted the first large scale, non-dining hall, post-consumer composting program on campus. While recycling has generally become second nature, the concept of composting is new to most. This session addresses the culture shift necessary for the project to be sustainable and recounts infrastructure retro-fits, outreach initiatives, and assessment data from a waste audit conducted one year later. The project was a partnership between The Stamp, Department of Dining Services, FM Solid Waste & Recycling, and the Office of Sustainability; it was underwritten by a Student Sustainability Fund grant.

**50-Minute Concurrent Presentations**

**TRACK: Adaptation and Resilience**

**Understanding Our Water Footprint, De-risking Operations**
Jonathan Lanciani, Sustainable Water
Ed Kirk, Johns Hopkins University

Universities regularly implement strategies to optimize energy and water usage. Johns Hopkins University has taken significant strides to better understand and improve its water footprint. Currently, JHU is researching the feasibility of an on-campus ecological wastewater treatment system, the Sustainable WaterHub™, which reclaims water for reuse in HVAC/Steam systems. This in-depth assessment of its water footprint will enable JHU to leverage water reuse as an environmentally and economically impactful water management tool. Find out how understanding water usage on-campus can make JHU more resilient by improving efficiency, mitigating risks associated with availability, and reducing campus reliance on the local municipality.

**TRACK: Change Management and Implementation**

**Using Local Carbon Offsets to Reduce Your Environmental Impact**
Robert Johnson, Northern Virginia Community College
Laura Pagliarulo, Washington Gas Energy Services

College and universities across the country are increasingly using carbon offsets as a credible and affordable way to help them reduce their carbon emissions and achieve their environmental sustainability goals. This case study will discuss how a partnership between Northern Virginia Community College and Washington Gas Energy Services on the CleanSteps Carbon Offset product will reduce the Colleges’ carbon emissions from their natural gas use, create funding for future clean air and water projects with the Chesapeake Bay Foundation, and engage the campus population. It will also include how this fits with NOVA’s larger carbon reduction goals.
Where’s My Frisbee Field? Stormwater Impacts on Campus Open Space
Lydia Kimball, Mahan Rykiel Associates
Ted Brown, Biohabitats
John d’Epagnier, RK&K Engineers
Kris Phillips, Towson University

Dramatic changes have come to stormwater treatment in Maryland, and are expected soon in other states. This has a significant impact on campus site design, where issues of aesthetics, function, and science converge. This presentation explores the engineering, environmental, and aesthetic implications of this new paradigm. Through case studies and other background information, panelists share specific expertise in water resources, landscape ecology, and open space design to show what that can mean for the changing physical environment of college campuses.

Along the Continuum: Environmental Stewardship Shapes SERC’s Science Campus Expansion
Howard Skoke, Chuck Rudalavage, EwingCole, Architects, Engineers, Planners
Anson Hines, Smithsonian Environmental Research Center (SERC) + Campus

The Smithsonian Environmental Research Center’s 2,650-acre Rhode River site is the largest contiguous, undeveloped parcel on Maryland’s western shore used for environmental research, graduate and undergraduate education, and public recreation. The session will review the strategic framework that guided campus master planning, site infrastructure, and ensuing designs for Scientist Housing and the LEED-Platinum Mathias Laboratory, which offers an innovative setting for interdisciplinary research.

The Social Life of Smartphones: Storytelling to Connect with Diverse Audiences
Ben Kalscheur, Texas A&M University

We have taken a unique approach to education and outreach initiatives by highlighting the social aspects of sustainability, leveraging connections with student groups to tailor programming efforts for diverse audiences, and fostering the power of storytelling through word, film, and music to elicit emotional responses in our audiences and instill behavior change. We use this approach to share the message that a key reason for adopting a sustainable lifestyle is reducing the burden paid by those throughout the world to support our consumptive lifestyles. The items we buy come with a price we don’t pay for at the store.

Integrated Landscape Design: Combining Students and Faculty for Water Conservation
Markus Hogue, Hirokazu Horikoshi, University of Texas at Austin

Many universities fail to provide students with hands-on experience to prepare them for the professional world. The Integrated Landscape Design is a Green Fee Project for the University of Texas - Austin with goals of improving the University’s sustainability efforts while fostering the relationship with students. During this time of drought, water conservation is a top priority, and the campus is redesigning landscape areas to reduce water usage. Through student involvement and faculty guidance from different departments such as Sustainability, Landscape Architecture, and Landscape Services, we are redesigning these landscapes into sustainable plant beds while providing real-world experience for students.
50-Minute Concurrent Presentations continued

**TRACK: Adaptation and Resilience**

*Exploring Regional Assets To Build a Campus Renewable Energy Platform*  
Lisa Harris, University of Minnesota, Morris, MN Campus  
Ballroom D

The University of Minnesota, Morris is a 1 million square foot campus and home to about 2,000 students. During the past 10 years, we have made significant progress and learned many lessons about distributed, renewable energy systems. The campus has cut its carbon footprint by 40% and obtains over 60% of its annual electricity from twin 1.65MW wind turbines. The Morris campus is home to: biomass gasification, wind turbines, solar PV, solar thermal, green buildings, and more; it is one of the few places in the US where you can see all of these technologies in one place.

**TRACK: Change Management and Implementation**

*Catalyzing a Regional Environmental Movement*  
Ryan McPherson, Jim Simon, University at Buffalo  
Ballroom E

Building a better future is a collective effort, but often throughout the higher education sector we focus inward within our own institutions. While this is a practical and at times strategic move, it prevents us from creating the type of integrated and holistic change we seek as a movement. This session will examine the university’s role in leveraging disparate environmental organizations and initiatives into a unified cohesive effort that is working to create regional, state and international change to build a better tomorrow.

80-Minute Concurrent Workshop

**TRACK: Social Sustainability**

*Building a Community of Change*  
Jaime Van Mourik, Center for Green Schools - US Green Building Council  
Sarah Brylinsky, Second Nature  
Bonny Bentzin, Sustainability Consulting and Implementation  
Jennifer Andrews, Clean Air Cool Planet  
Ballroom F

The workshop will explore how we can collectively transform the workplace where gender is left at the door, balance and productivity are prized, and all employees are inspired and supported to rise in the leadership ranks. Participants will discuss what a sustainable professional environment looks like, define the required components, and brainstorm opportunities for designing support networks. Based on the conversation participants will co-create community action plans for campus implementation and for use more broadly. This session is complimented by Sustaining and Growing Yourself as a Professional in a Changing Workplace workshop and may be taken alone or in sequence.
The Third U.S. National Climate Assessment (NCA) will be released in spring 2014. A product of the Federal Government, this NCA focuses on the best available science on climate change and more sustained approaches to climate assessment, facilitating deeper, multi-faceted connections between science and decision-making. The presentation highlights the NCA as a resource for campuses, reviews its components, and describes ways higher education can benefit from and engage in this inclusive NCA approach. The panel discussion will discuss the state of adaptation, mitigation, and climate assessment and links to existing and emerging opportunities across higher education, simultaneously encouraging audience discussion.

**TRACK: Change Management and Implementation**

**Culture of Sustainability: The Power of Gaming, Rewards & Social Norms**

Casey Roe, Duke University

Changing behavior on a university campus is a challenging task which is never complete. Competition and well-designed rewards can elevate a message above the noise on campus to secure an audience. With a captive audience, use of creative methods to reinforce positive social norms can fortify a culture of sustainability. Based on successes and failures at Duke University, this session reviews characteristics of a successful reward and the power of gaming in creating a campus culture of sustainability.

**Creating a Sustainability Culture: Building a Base with Online Training**

Mike Shriberg, Nicole Berg, University of Michigan

The University of Michigan’s Planet Blue Ambassador Program targets the large percentage of our campus population that is interested but not yet engaged in sustainability. Ambassadors enter the program by completing five short online sustainability behavior change modules leading to a personalized action dashboard. This online training dovetails with a series of outreach and in-person activities. The session will provide participants with a model to build a behavior-change program based in part on the community-based social marketing approach as well as a way to analyze the cultural conditions on campus to make a program like this thrive.

**TRACK: The Built Environment**

**Building a Campus Together**

Abena Ojetayo, Matthew Kozlowski, Aylin Gucalp, Cornell University

Even in these tough economic times, many institutions continue to grow their physical campuses to enable them to carry out their research and teaching missions. At the same time, many aged campuses are also in need of major renovations. Though the design and development of new and existing campuses is often relegated to facilities professionals, both scenarios are ripe for learning laboratory collaborations that can yield innovative and sustainable solutions for the built environment. Attendees will learn how Cornell University facilities staff, faculty, and students are capitalizing on the design-build opportunity in the development of a new campus in NYC.
**TRACK: Social Sustainability**

**“Fracking” on the Campus; the Pennsylvania Experience**

Wendy Lee, Bloomsburg University  
Kevin Heatley, Biohabitats Inc.

Rapid development of shale gas using hydraulic fracturing (fracking) is rapidly proceeding in Pennsylvania despite questions as to the associated ecological, environmental, and social costs. Pennsylvania Act 147 has vested university presidents with the authority to decide whether these operations can proceed on Pennsylvania State System of Higher Education (PASSHE) campuses. Recognizing the inherent incompatibility of these operations with the mission of higher education, the Association of Pennsylvania State College and University Faculty (APSCUF) decisively passed a position statement opposing these activities on PASSHE properties. This union resolution is the first in the nation to address fracking on college campuses.

**TRACK: The Campus as a Learning Laboratory**

**Campus Greening as Student Scholarship: Integrating Operations and Academics**

Andrew Wingfield, Margaret Lo, George Mason University

George Mason’s Patriot Green Fund (PGF) provides $100,000 annually to support sustainability-related research and infrastructure improvement projects on campus. Students in the Environmental and Sustainability Studies major are designing and implementing PGF-funded projects to fulfill core academic requirements. The presenters describe the collaboration between students, faculty, and operations personnel that makes this campus-based undergraduate action research possible.

**TRACK: The Campus as a Learning Laboratory**

**Central New Mexico Community College: Journey to a Sustainable Campus**

Luis Campos, Carson Bennett, Sue Small, Central New Mexico Community College

This project outlines the evolution of sustainability initiatives at Central New Mexico Community College and explains how our experience can serve as a guide for facilities personnel and faculty at other colleges to create transformational change by working together toward sustainability goals. We will present the complexities and triumphs of partnering facilities personnel with faculty to create “Campus as a Living Lab” opportunities such as: integrating the installation and operation of photovoltaic arrays into classroom activities across multiple departments; designing a campus-wide “Recyclemania” event to include student Service-Learning opportunities; facilitating student involvement with HVAC renovations, etc.

**TRACK: Social Sustainability**

**Riding the Line Between Risk and Reward With Two Wheels**

Jim Simon, University at Buffalo

When our community bicycle sharing program closed, we began searching for alternatives that would meet the needs of our campus in light of our goal of becoming climate neutral by 2030. We engaged in a partnership with a start-up company that offers a GPS-enabled bike that can be located and borrowed using your mobile phone. By becoming the first college or university to partner with this company, we have learned and applied several important lessons about innovation, partnership, and the development of learning opportunities for our students.
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