Sustainability Strategic Plan

Presented by the University Sustainability Task Force

May 2011
## Contents

1. **Sustainability Vision** 3
2. **Purpose of the University Sustainability Task Force** 3
3. **Measuring Sustainability Outcomes** 4
4. **Reporting Future Progress** 5
5. **University Sustainability Task Force Methodology** 5  
   a. Process Begins 5  
   b. Approach for Addressing Sustainability 6  
   c. Gauging UDC’s Performance 7  
   d. Learning From Others 9
6. **Low-Hanging Fruit** 9
7. **Priority Recommendations** 10  
   a. Material Flows 10  
   b. Food Systems 11  
   c. Energy, Water, and Climate 11  
   d. Student Development and Community Engagement 12  
   e. Planning and Administration 13  
   f. Scholarship, Research, and Service Learning 14
8. **Conclusion** 15
9. **Appendices** 16  
   a. Memos from the University Sustainability Task Force 16  
      i. Low-Hanging Fruit – Sustainability Measures that can be Quickly Implemented 16  
      ii. Recommendations from the University Sustainability Task Force Committee on Materials Flow on Janitorial and Recycling Services 18  
   b. List of University Sustainability Task Force Members 23  
   c. Supplemental Recommendations List 24  
   d. Selected Best Practices and Peer Institution Research 26
Sustainability Vision

“UDC will serve as a sustainability leader among institutions of higher education and as a national model for urban sustainability in both campus operations and educational offerings.”
– Dr. Allen L. Sessoms, President.

The global sustainability movement is fundamentally about how people can learn to live more harmoniously with nature in order to maintain an equitable, high quality of life for us, our children, and future generations. Sustainability has direct implications for the immediate and long-term health of the University of the District of Columbia—its community of students, faculty, and staff, its campuses, which include both natural and built environments, and the city in which it is located. Therefore, UDC defines sustainability as a comprehensive set of policies and practices that meet society’s present needs without compromising the ability of future generations to meet their own needs.

UDC’s approach to sustainability is holistic and comprehensive; it goes beyond energy efficiency, resource conservation, and greenhouse gas reduction. For UDC, sustainability is a vital component of the university mission. Embedded in our identity as a land-grant institution is a commitment to building healthy, vibrant, and livable communities in Washington, DC. In addition to improving sustainability in our facilities, UDC will galvanize the efforts of our faculty, staff, and students to advance sustainability through intellectual thought and direct service throughout the District of Columbia.

Purpose of the University Sustainability Task Force

The University Sustainability Task Force was charged with developing a strategic vision for sustainability at UDC. By committing to a long-term sustainable future, the university is publicly challenging some of the misperceptions of sustainability activities, particularly, that such actions are too costly and too difficult to implement. The Task Force spent an appreciable amount of time researching best practices from higher education institutions all over the country to address these misunderstandings head on. Having recently celebrated the 160th anniversary of its founding, UDC recognizes that one of its greatest strengths rests in its longevity. UDC’s sustainability initiative is a long-range effort. Its implementation will require decision making that is based on life-cycle costs accounting for return on investment, with respect to both financial costs as well as broader economic terms, such as productivity and efficiency. The strategic framework to follow will provide general recommendations and outline potential actions to be taken in the coming years within the following focus areas (laid out in President Sessoms’ September 9, 2010 letter establishing the University Sustainability Task Force):

- Buildings
- Curriculum Development
- Energy
- Extension and Outreach
- Greenhouse Gas Emissions
- Information Technology Innovation
- Partnerships
- Procurement
- Research
- Service Learning
- Student Life
- Transportation
- Water
- Waste and Recycling

Campus Based Research
Sustainable Service Learning Projects in the DC Community
Campus Greening Projects
Academics & Research
Research Partnerships
Outreach & Engagement
Facilities & Operations
**Measuring Sustainability Outcomes**

The University Sustainability Task Force understands that access to high quality data is tantamount to high performance; good management is predicated on good measurement. While some data is available to assess the university’s baseline sustainability performance, current management processes and physical infrastructure do not widely exist to support active, ongoing measurement and verification. Some progress has been made in capturing data for existing conditions. For example, the Task Force calculated the percent of impervious cover on the Van Ness Campus at roughly 93%, based on data obtained from DC Water, which contributes substantially to the need for additional stormwater management. Preliminary results from efforts to track recycling rates show that the Van Ness Campus diverts roughly 15-20% of its solid waste from landfill, well below the average diversion rate of 33% for the city as a whole. Less than 3% of the nearly 700 courses offered in a typical semester are sustainability-focused or -related. These and other performance indicators are critical to measuring sustainability progress at UDC. The following is a list of indicators on which the UDC Sustainability Initiative plans to regularly report, making the information publicly available online.

1. Greenhouse gas emissions (scopes 1, 2, and 3)
2. Energy source mix
3. Energy consumption and spending
4. Carbon offsets purchased
5. Recycling diversion rate
6. Solid waste produced
7. Electronic waste recycled
8. Construction and demolition waste
9. Furniture waste
10. Organic waste composted
11. Potable water consumption
12. Operability of drinking fountains
13. Bottled water consumed on campus
14. Building occupant thermal comfort satisfaction
15. Sustainability-focused and -related courses offered
16. Recycled content of ongoing consumables such as copy paper and paper towels
17. Campus cover imperviousness
18. Tree canopy coverage
19. Transportation modal split
20. Food purchased locally

To succeed in tracking, and ultimately improving, performance in each of these areas, a fundamental change must take place. The entire university community must take part in a culture shift to ensure better stewardship—not just for our environment, but for data. The quality of our quantitative performance measurements is directly tied to our institutional ability to make well-informed, data-driven decisions for the improvement of sustainability throughout the university.

---

**Vending Machine Audit**

The Task Force leadership recently conducted a campus vending machine audit to understand the amount of energy consumed in campus vending machines and the associated costs. Armed with this data, the university developed valuable analysis on the true costs of the vending operation on the Van Ness Campus. Primary outcomes from that exercise facilitated better informed, data-driven decision making and the uncovering of efficiency opportunities aimed at improving energy conservation.

Though the electricity used by vending machines represents roughly .02% of UDC’s total electrical consumption, the vending machine audit can be scaled up to include our offices, our buildings, and our campuses to identify opportunities yielding small and mid-sized changes that add up quickly. The applications are broad, as well. Through smart energy stewardship, UDC can capture the measurable data that saves money, utilizes resources efficiently, provides a service learning opportunity for students, and engages staff and faculty.
Reporting Future Progress

Fortunately, the university does not have to invent the framework for measuring its sustainability performance. Numerous independent rating and ranking systems exist which provide the necessary guidance. The Sustainability Tracking Assessment and Ratings System (STARS) is a self-reporting framework designed by and for colleges and universities to gauge relative progress toward sustainability outcomes. STARS was developed by the Association for the Advancement of Sustainability in Higher Education (AASHE) with broad participation from the higher education community. UDC is a Charter Participant in STARS and will submit documentation for its initial rating by August 2011. The Sierra Club’s annual Cool Schools survey assesses American colleges and universities according to their environmental practices, green initiatives, and caliber of sustainability-oriented education. In 2010, the Princeton Review’s Guide to Green Colleges tallied the ratings of 286 colleges and universities based upon institutional surveys of their environmentally related practices, policies and academic offerings. In addition, the Sustainable Endowments Institute produces the College Sustainability Report Card, in which hundreds of schools are graded on sustainability performance across a number of categories, including investment endowment transparency and investment priorities. Each of these national assessment frameworks use self-reported, quantifiable data to determine objective measures of sustainability and establish an institution’s performance. Though UDC is presently committed to utilizing STARS to manage performance and develop sustainability-related goals, additional assessment frameworks and surveys will be completed as requested by the coordinating entity and when practical for benchmarking and communicating progress.

University Sustainability Task Force Methodology

On September 9, 2010, President Sessoms announced the formation of the University Sustainability Task Force, which requested that each Dean and Vice President name one staff or faculty member and one student to represent their school or division. The group met bi-monthly from October 2010 to December 2010. One additional meeting was held to review all draft recommendations on January 13, 2011. Lastly, open house presentations for the entire university community (faculty, staff, students, alumni, and local environmental advocates) were held January 24 and 30, 2011 to share the preliminary findings of the task force. The co-chairs also presented to a group of public officials at the District Department of the Environment on February 14, 2011. A copy of these presentations was made available at the UDC Sustainability Initiative web site at www.udc.edu/sustainability. Information on the Task Force was also provided during the four public Campus Master Plan meetings held between October 2010 and January 2011.

Process Begins

One of the most significant challenges faced by the Task Force was a lack of knowledge on sustainability issues. Familiarity and experience with sustainability planning and implementation was greatly varied across the group. Most of the members of the Task Force had only a limited understanding of
sustainability, but all were eager to learn more and were passionate about at least one sustainability-related issue. Members of the Task Force were asked to define what sustainability meant to them. The following terms and concepts summarize the results of that exercise.

<table>
<thead>
<tr>
<th>Energy Use</th>
<th>Socially Desirable</th>
<th>Environmentally Conscious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Reduction</td>
<td>Economically Feasible</td>
<td>Education</td>
</tr>
<tr>
<td>Green Communities</td>
<td>“Better Than We Found It”</td>
<td>Balance</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>A Way of Life</td>
<td>Connectedness</td>
</tr>
<tr>
<td>Social Justice</td>
<td>Food, Energy and Water</td>
<td>Thinking Ahead</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Consciousness</td>
<td>Energy Sourcing</td>
</tr>
<tr>
<td>Triple-Bottom-Line</td>
<td>Waste Management</td>
<td>Long-Term Planning</td>
</tr>
<tr>
<td>Cleaning up the Environment</td>
<td>Responsibility</td>
<td>Way of Thinking</td>
</tr>
<tr>
<td>Recycling</td>
<td>Opportunity</td>
<td>Zero Waste</td>
</tr>
<tr>
<td>Sustainable Operations</td>
<td>Conservation</td>
<td>Zero Emissions</td>
</tr>
<tr>
<td>Social Anthropology</td>
<td>Reuse</td>
<td>No Divisions</td>
</tr>
<tr>
<td>Low-Carbon</td>
<td>Think, Live Green</td>
<td>Leadership</td>
</tr>
<tr>
<td>Restorative</td>
<td>Maximize Utility</td>
<td>Greening our Homes</td>
</tr>
<tr>
<td>Actions have Consequences</td>
<td>System Interdependence</td>
<td>Preservation</td>
</tr>
</tbody>
</table>

The interconnectedness and interdependence of issues in sustainability and the triple bottom line – People (Social), Planet (Environment), and Profit (Economics) – were common guiding themes identified by the Task Force.

**The Three Spheres of Sustainability**

Additional key themes identified from that exercise include:

- Systems approach
- Staying ahead of local and national policy
- Educating students and the UDC community,
- Behavior change
- Measurement and verification
- Economic and operational efficiency
- Urban land-grant identity
- Job development for emerging sectors
- Following best practices
- Interdisciplinary focus.

**Approach to Addressing Sustainability**

Having identified interconnectedness as a predominant theme, the Task Force adopted a systems approach as its working framework. The systems approach is founded on the principle that organizations are complex and dynamic entities whose components are interconnected by people and processes. Instead of compartmentalizing the various attributes of sustainability into separate
The systems approach works across organizational silos. One part of the system is influenced by and dependent upon other parts of the system in order to be successful. This approach also promotes collaborative problem solving by addressing challenges not as isolated, separate, and distinct obstacles, but as interdependent problems and processes operating within the context of a holistic system. The work of the Task Force and its subcommittees was organized by the systems approach into the following groupings.

- **Material Flows**
  - Procurement
  - Asset Management
  - Waste Management and Recycling
- **Energy, Water, and Climate**
  - Energy Efficiency and Renewable Energy
  - Information Technology
  - Water Management
  - Transportation
  - Greenhouse Gas Management
- **Food Systems**
  - Dining Services
  - Composting
  - On-Campus Food Production
- **Scholarship**
  - Curriculum
  - Research
  - Service Learning
- **Student Development and Community Engagement**
  - Recruitment and Retention
  - Co-Curricular Programs
  - Internships and Jobs
  - Internal and External Communication
  - Partnership Development
- **Planning and Administration**
  - Governance and Organizational Changes
  - Staffing and Resources
  - Policy Development

The final recommendations found later in this report are organized using this systems approach.

The Task Force recognizes that for this approach to be successful, UDC must build meaningful internal and external partnerships; collaboration is needed in order to effectively and efficiently institute sustainable practices. Additionally, the group acknowledged that every university department has a role to play and that the responsibility for implementing sustainability measures does not fall on a limited number of administrative or academic units. As such, ongoing cross-departmental cooperation was identified as a vital component to the long-term success of the sustainability initiative.

**Gauging the UDC’s Performance**

Early in the process, Task Force members were asked a series of questions in order to gauge their opinions on how well the university was performing as it relates to sustainability. This qualitative exercise helped to define perceptions of the university’s commitment to sustainability, understand its current practices, and determine what it would take to make the university a higher performing institution.

First, the Task Force identified the attributes of a sustainable university as:

1. Academics
2. Aesthetics
3. Built Environment
4. Communication
5. Energy and Water
6. Food
7. Innovation
8. Materials and Waste
9. Operations
10. Partnerships
11. Student Life
12. Sustainability Stewardship
Four questions were posed for each attribute.

1. What is our current **performance** level?
2. What is the relative **importance** of this issue to our campus?
3. What is the **level of effort** required for success?
4. How significant is the potential **impact** of achieving success?

Based upon its understanding, the Task Force assessed the university’s current performance for each attribute (horizontal axis). Then the Task Force determined the level of importance of each attribute (horizontal axis). Next, the level of effort required to improve upon the university’s current performance was recorded (green requiring low effort, yellow requiring moderate effort, and red requiring high effort). Finally, the impact to the university was evaluated (where a larger dot represents high potential impact and a smaller dot represents a low potential impact). The results, presented graphically below, were enlightening.

The results are mapped in the diagram above. A summary of this exercise reveals several key observations.

- The Task Force believes that all of the attributes are important in order to achieve a sustainable university; all of the attributes were rated in the top quartile of the response scale.
• High performing attributes which are also of high importance could be considered institutional strengths, while low performing attributes of high importance could be considered visible liabilities. Several attributes were identified as visible liabilities with significant potential impact; given this combination, these attributes might be considered priority areas.
• Only Sustainability Stewardship was viewed as a currently high performing attribute at UDC. For more than half of the attributes, the Task Force felt that the university’s performance was at best only average; and
• In order to improve performance, all but one attribute area (Sustainability Stewardship) would require a moderate to high level of effort from the university.

The findings from this exercise were not surprising due to the fact that, prior to the university establishing a Sustainability Initiative in August 2010, there was little expression of sustainability as a guiding principle of this institution. This and other assessment tools will be revisited annually in order to gauge UDC’s progress on sustainability as perceived by the campus community.

**Learning from Others**

Considering the national movement toward sustainability on college and university campuses, the Task Force was interested in learning from the initiatives underway at peer institutions. A Research Subcommittee was formed to identify and adapt best practices from across the country. In addition, the Task Force benefited from a presentation on American University’s sustainability program, widely considered a national model. The Task Force co-chairs were also able to draw best practices and other resources from a regional group of campus sustainability coordinators which convened periodically in the 2010-2011 academic year. Lastly, two of the co-chairs of the Task Force attended the annual conference of the Association for the Advancement of Sustainability in Higher Education (AASHE) in October 2010. AASHE’s mission is to empower higher education to lead the sustainability transformation by providing resources, professional development, and a network of support to enable institutions of higher education to model and advance sustainability in everything they do, from governance and operations to education and research. A summary of the best practices identified from AASHE 2010 can be found in Appendix D.

**Low-Hanging Fruit**

Before delving deeply into the work of the various subcommittee issue areas, the Task Force identified several initial, low-cost, fairly easily implementable sustainability ideas. Several of these ideas have the benefit of requiring low up-front investment while providing a quick (one year or less) payback period and elevating the profile of sustainability at the university. A partial list of recommendations is described below with a full list of “low hanging fruit” ideas included in Appendix A.
• Create a pledge (online) to encourage individuals to identify minor behavior modifications in their daily activities that promote sustainability.
• Provide comments to the Vice President for Facilities and Real Estate on the pending janitorial, waste management, vending, and recycling contract solicitations.
• Beautify the Zero Energy Visitor Center to increase its visibility and maximize its educational value.
• Institute a “UDC Unplugged” campaign to encourage people to unplug all non-necessary electronic equipment during the Thanksgiving and Winter breaks.
• Develop a “Can the Can” campaign to eliminate daily pickup of trash from faculty and staff offices by janitorial staff in order to promote a reduction in waste creation through behavioral change.
• Participate in the annual DC Green Week events each April.
• Conduct a waste audit of campus buildings to determine what percentage of waste is not being properly discarded into the recycling receptacles.
• Establish a Green Procurement Policy.

Final Recommendations

The final two Task Force meetings of 2010 were set aside for developing the recommendations of each subcommittee. The subcommittees worked in small break out groups and then reported out their findings to the entire Task Force for additional comments. The following series of recommendations are informed by that exercise and subsequent discussions.

Material Flows

The recommendations for material flows demonstrate two of the main concerns of the Task Force, including (a) sourcing the right materials upfront in order to reduce the waste stream of the university and (b) ensuring that more of the university’s solid waste gets recycled and diverted from landfills or incinerators. Current diversion rates are around 15-20% so there is a tremendous upside to improving material flows on this campus.

Many universities have established green procurement systems, with Rutgers University recognized as a standout in this area. Green procurement policies consider the environmental and social impacts of purchases along with the traditional measures of cost and quality. UDC purchases nearly $30 million in goods and services annually so it has the ability to use its purchasing power to influence practices both upstream with its vendors and downstream with its waste management and recycling programs.
Recommendations:

- Establish green procurement policies and practices including a checklist for all vendors to submit which articulates their sustainability practices.
- Create a robust three-tiered waste management system – recycling, composting and true trash – to measure the university’s performance in all aspects of the waste stream.
- Perform an annual on-campus waste audit to both educate the university community on waste management practices but also establish baseline data for year to year progress evaluations.

Food Systems

From 2011 to 2015, it is anticipated that through Agricultural Experiment Station (AES) and the Cooperative Extension Service (CES) a relationship which fosters a connection between urban, local and regional areas will be developed to support a unique, sustainable food system inspired by a closed-loop approach. While food service on UDC’s campuses is currently a small scale operation, demand is anticipated to increase tremendously with the addition of on-campus residence halls and a student center. This creates an opportunity for sustainability both in sourcing and in disposal. The university also has the opportunity to expand the farmers’ markets on the Van Ness Campus and in Ward 8 to support local, fresh food options. In addition, the Agricultural Experiment Station’s Research Farm site will be used to conduct research and expand the educational opportunities for the composting of food waste both on a small scale as well as on a commercial scale.

Recommendations:

- Develop a food system which promotes local, regional, urban and rural agriculture certified organic food options drawing upon a closed-loop model.
- Develop a collaborative, interdisciplinary food systems program using the Agricultural Experiment Station’s (AES) Research Farm site and the expertise of the Cooperative Extension Service (CES).
- Support the creation of a small community garden on the Van Ness Campus to be organized and maintained by students.

Energy, Water, and Climate

Energy, water and climate are best addressed through the improvements to the physical assets of the university, including its buildings, landscape and natural environs. Given our location and proximity to existing transportation infrastructure, UDC is well positioned to take advantage of sustainable
transportation options. The recent arrival of the Capital Bikeshare station adjacent to the Van Ness-UDC Metro Station and the university’s commitment to not expand on-campus parking provide good opportunities to increase the percentage of UDC faculty, students, and staff that use alternative commuting methods. Several ongoing projects, such as the renovation of the Dennard Plaza into a green gathering space, will undoubtedly help to brand UDC as a sustainable university. Not resting on its laurels, UDC will need to identify the next generation of sustainability investments in these areas. In order to effectively measure the benefits from the capital investments, baseline or current energy and water usage and greenhouse gas emission must be documented and monitored. The paradox of planning for a LEED Platinum Student Center while the existing buildings on campus face significant challenges of poor air quality, leaky roofs and windows, and inadequate energy management cannot be understated. Currently the university cannot energy benchmark its buildings as required by the District of Columbia’s Clean and Affordable Energy Act of 2008. Without proper metering infrastructure, building-by-building level data cannot be collected, thus compromising the ability to make sound and effective management decisions for the built environment.

Recommendations:

- **Implement utility benchmarking system for tracking energy, water, and GHG performance in campus buildings.**
- **Develop strategies to overcome regulatory and logistical obstacles to utilizing various energy financing mechanisms, such as energy performance contracting and revolving loan funds, aimed at improving building system performance. As an instrumentality of the District Government, UDC is prohibited from issuing bonds, carrying debt and entering into energy performance contracts, all of which are common financial tools used by other universities instituting deep energy retrofits.**
- **Develop a climate action plan.**

In 2011, several low hanging fruit projects are being implemented around the campus, including:

- Retrofitting water fountains with the water bottle filler faucets.
- Replacing old recycling containers with new, more distinctive and more durable containers.
- Preparing a proposal for District government to allow energy performance contracting as a necessary tool for expediting deep energy retrofits.

A further, more intensive planning effort is required to set quantitative performance targets within the area of energy, water, and climate. In addition to a number of current and planned activities, UDC will investigate the feasibility of becoming a signatory to the American College and University Presidents
Climate Commitment (ACUPCC), a pledge to achieve climate neutrality. Given its identity as the District’s public institution of higher education, UDC should meet or exceed the climate goals set forth by the District of Columbia. This includes the reduction of greenhouse gas emissions by 20% (below 2006 levels) by 2012, 30% by 2020, and 80% by 2050. In addition, the university should seek to source energy from renewable generation at a rate consistent with the District Government (which currently procures 50% of its energy need from renewable sources).

Student Development and Community Engagement

Student involvement is a hallmark of most university sustainability efforts. We understand that our future viability is inexplicably linked to our ability to educate students and prepare them for the global challenges tied to sustainability, including climate change, urbanization, and resource depletion. As a commuter school without on-campus residence halls or a student center, UDC faces challenges implementing sustainability programming targeted to students. On many campuses, the impetus for many of the sustainability efforts derives from students and their on-campus experiences. As such, UDC strives to encourage student and stakeholder engagement in order to advance the university’s sustainability goals. Among other approaches, a conscious effort to cultivate student leadership and provide additional support to existing and emerging student organizations focused on sustainability is needed.

Recommendations:

- Develop a communication strategy which utilizes publications, events, campaigns and media to raise awareness of good sustainability practices and how to integrate them into everyday life.
- Develop ways to reward and incentivize compliance and innovation for greener behavior among students, faculty and staff.
- Develop strategic partnerships with community-based organizations that focus on sustainability to advance service learning and provide internship opportunities for students.

Planning and Administration

Institutionalizing change, particularly change that includes sustainability, is extremely critical for the long term viability of the Sustainability Initiative. UDC envisions a future where it is a more influential player on the sustainability stage, both regionally and nationally. UDC must break away from the past practices of making short-term operational decisions without determining the impact on future long-term benefits. The perpetuation of a “status quo” approach to managing the university’s physical assets is no longer viable. We must proactively think, manage and budget more creatively and intelligently in order to progress to a more sustainable institution. How sustainability is organized, its governance structure, and the level of resource dedication are vital to successfully improving the quality of the educational experience at UDC.

Recommendations:

- Establish an Office of Sustainability (OS) with its own dedicated operating budget.
- Staff the OS with students from across academic units hired as champions to promote sustainability among the student body.
• Create a publicly accessible dashboard, managed by the OS, to allow people to track the progress of sustainability indicators.
• Implement policies to promote better environmental stewardship and data management in university operations such as a double-sided printing policy. Hold Vice Presidents, Deans, Department Chairs, and other university leaders accountable for introducing and enforcing such policies.
• Pilot small, manageable sustainability policies with quantifiable outcomes (especially cost savings via short-term simple paybacks) to demonstrate achievable successes.
• Establish sustainability captains for each department who would be responsible for making sure their department complied with sustainability objectives. Empower student sustainability leaders to engage staff and faculty on topics such as behavior change.

Scholarship, Research, and Service Learning

The core mission of any institution of higher education is the academy and its main functions – scholarship, research and service learning. The study of sustainability is rapidly evolving, with new knowledge being introduced continuously. UDC will integrate sustainability and environmental knowledge into all relevant disciplines, where practical, as the responsibility for stewardship, teaching, and learning of sustainability does not rest solely with any one academic unit. Current faculty will be strongly encouraged to pursue research opportunities while new adjunct faculty will be sought for their demonstrated skills and practical leadership in this area.

Recommendations:

• Provide faculty incentives for sustainability course development (such as time off or reduced course load).
• Reinvigorate existing research centers by creating an umbrella body, a Sustainability Institute, which will house a group of sustainability-related research centers.
• Expand the number of sustainability-focused and -related courses offered regularly.
• Involve students in faculty-led campus-based research projects seeking to improve energy and resource efficiency and reduce waste.
• Improve the instructional quality of courses by utilizing the external expertise in sustainability within the metropolitan Washington, DC area, including offering Adjunct Professor positions to recognized subject matter experts.
Conclusion

Sustainability at the University of the District of Columbia’s is a continuous process of improvement, self-reflection, and trial and error. This report is an initial step on the sustainability continuum, signifying a shift from merely being aware of sustainability challenges and opportunities to a deeper level of institutional understanding and action. Over the next few years, as the university begins to apply lessons learned and invest in a more sustainable future, it will transition from sustainability practitioner to sustainability leader. However, to achieve this goal, a significant culture shift must take place; at the very least, this must include the empowerment of each member of the university community to innovate freely and to challenge the status quo. Given its position in the District of Columbia and its recent trajectory driven by skilled change agents, UDC is well positioned to achieve a high level of sustainability performance. By fully integrating sustainability strategies and policies throughout the university, UDC can assume its place as a thought leader and an example for other higher education intuitions.
MEMORANDUM

TO:      Dr. Allen L. Sessoms, President

FROM:   Sustainability Task Force

SUBJECT:  Low-Hanging Fruit – Sustainability Measures that can be Quickly Implemented

The Sustainability Task Force has been working diligently since its inception in October 2010. While the final report and sustainability plan is scheduled to be completed by March 2011, the task force has identified several low hanging fruit opportunities. The task force is providing you these items in order for implementation to begin without further, protracted study. Most of these recommendations have few costs associated with them while some provide significant cost savings over practices currently utilized in the operation of the University.

- Implement the green janitorial practices outlined in the Sustainability Task Force memo to the Vice President for Real Estate and Facilities and the Director of Contracting and Procurement (attachment).
- Unplug vending machines overnight or have energy saving devices installed and require that future vending machines must be energy efficient models which result in a 10% to 30% reduction of energy use.
- Install occupancy sensors to control lighting in offices, classrooms, hallways, and restrooms.
- Require that printers and copiers will have two-sided printing and copying set as their default.
- Encourage all university marketing materials and communications to be printed on recycled-content paper.
- Invest in a membership with a ridesharing platform to minimize single-occupant vehicle trips to and from UDC’s campuses.
- Place signs at each recycling location that clearly denotes what can be recycled.
- Repair broken water fountains and install filtration units with water bottle faucets where necessary to encourage more students, faculty, staff, and visitors to drink tap water instead of bottled water.
• Install a Brita® Hydration Station™ to demonstrate the benefits of filtered tap water and the cost savings of using reusable bottles (about one cent per 16 ounces).
• Ensure that housekeeping staff does not mix recyclables with trash and carries out their collection duties in a way that is transparent and inspires confidence to potential observers that the contents of trash and recycling bins are not mixed.
• Ensure that the UDC bookstore carries environmentally preferred products and adds prominent signage to make customers aware of environmentally preferred offerings.
• Implement a sustainability review for all capital expenditures over $25,000 and all non-research operating expenditures over $10,000.
• Replace all incandescent bulbs and lighting fixtures with compact fluorescent bulbs, LEDs or other more energy efficient bulbs or fixtures. Prohibit the purchase incandescent bulbs in the future.
• Require all equipment purchases or leases to be ENERGY STAR models or of comparable energy efficiency.
• Publish on the University’s sustainability website or facilities website transparent information and statistics regarding UDC’s sustainability performance in terms of energy consumed, water used, waste generated, solid waste diverted from landfills and greenhouse gases emitted.
• Provide permanent informational signage on the green attributes of the plaza deck renovations and the green roof demonstration project.
• Require that all University suppliers, vendors and contractors complete a green product and services prequalification form.
• Establish an annual university-sponsored Earth Day event.
• Require carbon offsets for university-sponsored air travel, when available.
• Include education on recycling and energy saving practices as a part of new employee orientation, new student orientation and campus tours for prospective students.

Upon your approval of these recommendations, the Sustainability Task Force is prepared to assist the appropriate departments who are responsible for implementation.

Attachment
December 9, 2010

MEMORANDUM

TO: Grae Baxter, Provost and Vice President for Academic Affairs
Steve Graubart, Managing Director of Finance
Mary Harris, Chief Procurement Officer
Barbara Jumper, Vice President for Facilities & Real Estate

FROM: Josh Lasky, Sustainability Manager
Howard Ways, Director of Planning and Sustainability

SUBJECT: Recommendations from the Sustainability Task Force Committee on Material Flows on Janitorial and Recycling Services

Recently there has been tremendous improvement in the field of green janitorial services, both in terms of cost savings but also environmental restoration. Sustainable products, equipment and cleaning methods are becoming the new standard bearers across university campuses. This memo reflects several weeks of research by members of the Sustainability Task Force of the best practices of several universities, including Rutgers University, American University, Georgetown University and Georgia Tech University.

Benefits to going green
The approach and all of the recommendations outlined in this memo will result in substantial benefits to UDC. Many benefits provide instant cost savings and environmental improvement, while others will demonstrate payback within a few months. None of the recommendations would increase costs to the university provided that they are incorporated in the beginning of the vendor solicitation/selection process. These terms should also be incorporated into the contract negotiations with a preferred vendor prior to a final decision being reached and a contract executed.

The benefits of a green cleaning and janitorial program include:
- Cost savings – reduced labor, reduced frequency of emptying out of receptacles, reduced amount of chemicals needed for cleaning,
- Reallocation of resources – saved labor hours from new processes can be reprogrammed for other purposes,
- Improved performance – reduced amount of bacteria and reduced amount of sick time taken by staff and faculty, and
- Increased visibility of university’s Sustainability Initiative – enhanced sustainability presence on campus can serve a student recruitment and retention tool.

Composting
All compostable materials shall be collected in green, biodegradable liners.

Use paper towels in restrooms made from 100% post-consumer, biodegradable recycled paper. Paper towels should be 100% compostable and Green Seal certified.
Recycling
All recyclable materials shall be collected in blue, biodegradable liners.

True Trash
All trash materials shall be collected in clear or white, biodegradable liners.

Chemicals, materials and equipment
All chemicals, materials and equipment shall be certified by Energy Star, Green Seal or other equivalent green product certification program.

Vendor must provide UDC a list of all chemicals, materials and equipment to be used for UDC approval.

Training
The selected janitorial vendor will require their staff to complete a UDC specific green cleaning training to be conducted by the UDC Sustainability Initiative staff.

Trash and recycling receptacles
UDC will provide new recycling bins and waste receptacles to clearly distinguish which is designated for trash and which is designated for recycling. The existing trash and recycling receptacles shall be slowly phased out. Until they can be completely phased out, clearer signage should be provided for the mini-port receptacles.

The Rubbermaid 256R-73 Glutton Recycling Station - 92 Gallon Capacity (Product Model: 256R-73) or equivalent are the preferred standard waste receptacle for indoor use.

For outdoor use, the Big Belly Solar Compactor and Recycling Kiosk are the preferred choice. The university shall purchase one compactor and place it in a conspicuous location on the Dennard Plaza in order to ensure maximum exposure.

For office, individual trash receptacles will be discontinued and replaced with the mini-bins used for District government and the University of Maryland (Mid-Point International Inc. BKC-27626 - Custom Imprint – Black with the UDC logo printed). Janitorial staff will no longer pick up trash in individual offices which will result in a substantial cost savings. Switching to a mini-bin styled trash collection system will save significant resources.

Outreach and Communication
The vendor shall hire a UDC student to serve as the Student Recycling Ambassador. This part time position is intended to coordinate outreach and on-campus educational programs to the faculty, staff and students about the universities recycling and waste management policies. The Student Recycling Ambassador will be supervised by UDC’s Sustainability Manager.
The vendor, Campus Services and the Sustainability Initiative will have quarterly management meetings to address high level procedural and performance concerns.

Prequalification Checklist
Vendor must complete the Prequalification Checklist (see attachment). Checklist will become an evaluation tool for the selection of the vendor. Vendors that provide documentation identifying the most sustainable business practices will receive a higher score for their evaluation.

Labor rates and hours
Vendor will provide the labor rates and the total labor hours for all employees. UDC must be notified of any change in labor rates, number of employees and labor hours along with certification that any change will not affect the vendor’s performance.

Elimination of daily office pick up of trash and implementation of a mini bin program
UDC will provide new recycling bins and waste receptacles to clearly distinguish which is designated for trash and which is designated for recycling. The existing trash and recycling receptacles shall be slowly phased out. Locating the central trash bins and recycling stations on each floor or within each department is critical.

For outdoor use, the Big Belly Solar Compactor and Recycling Kiosk is the recommended choice. Compactable waste receptacles (such as the Big Belly Solar Compactor) further reduce the janitorial vendor’s labor requirements. Compactors improve efficiency of trash pickup by reducing the number of times a receptacle needs to be emptied. These bins allow for 5 times as much trash to be added before a pickup is required. Using a centralized compacting receptacle has reduced staffing needs for trash pickup by up to 80 percent. The university should also consider purchasing compactable waste receptacles for interior applications.

Janitorial staff will no longer pick up trash in individual offices which will result in a substantial cost savings. Therefore, each staff member would be responsible for emptying their own trash into the centralized trash receptacles and recycling stations. This behavioral change effort has the effect of reducing the amount of trash generated by individuals, thus reducing the amount of trash that gets hauled away from the campus, thus reducing tipping fees and costs to the university. Switching to a mini-bin styled trash collection system will save significant resources spent on the janitorial contract. For example, if switching to the mini-bin program reduced the number of janitorial staff needed by the vendor, the typical annual cost savings to the university would be:

---

Georgetown University Case Study
Even while emptying their 110 trash cans 7 times a week, Georgetown University was facing real problems with waste overflow, rodents, and litter on campus. The solution: compacting trash on-site using BigBelly Solar Compactors at 60 of their most troublesome locations. The results from the switch have been amazing: by reducing collection frequency to just twice per week, the University gained 1,560 man-hours per year to reallocate to more critical tasks, eliminated 832 miles annually of driving to empty trash cans, and saved 1,307 pounds of CO2 from being emitted each year. The network of BigBelly solar compactors, equipped with wireless monitoring technology, make Georgetown University a leader in the adoption of green technology. They didn’t stop there, however, implementing a strategic recycling program utilizing the BigBelly system’s attached recycling kiosks. The additional units provided a combined 2000 gallon on-the-street repository for cans, paper, and plastic waste – marking a huge effort to divert resources from going to landfills.
2.5 fewer workers x 8 hours x $9.00/hour x 5 days per week x 52 weeks = $46,800.

Therefore, it is recommended that bids for the janitorial contract include cost estimates for the following:
1. the number of trash receptacles and recycling stations to be dumped, and
2. the frequency per day (once a day, twice a day, etc.) of the collection.

Green Cleaning Equipment
The vendor shall provide their employees the Activeion ionator EXP (Item #AI1003-US). The iicator is a handheld cleaning tool that does not use chemicals but uses ordinary tap water for cleaning. The equipment gets 24 hours of use out of one charge. It comes with a 2 year warranty on the equipment. Georgia Tech University utilized the iinator and within nine months, the equipment had paid for itself due to an 84% cost savings on chemical products and overall 63% cost savings in janitorial expenses. Other benefits realized at Georgia Tech were:

- Janitorial staff used 70% less water for cleaning,
- Less chemical damage to furniture and equipment, thus reducing replacement costs,
- Less absenteeism with janitorial staff, and
- Reduced employee injuries.

Lastly, the Activeion iinator can be a contributing factor in obtaining LEED points for green cleaning program.

Related Policy Recommendations
There are procurement practices that have an impact on janitorial services that should be implemented.

Green procurement policies and procedures
There is a direct connection (materials flow) between the goods and services procured and the waste created on the campus. Implementing green procurement guidelines like those instituted at Rutgers University will help to reduce the waste stream and increase the diversion rate for recycling and composting.

Require Waste Audits
The janitorial vendor must coordinate with the selected waste management vendor to conduct two waste audits annually. The scope of the waste audits will be individual buildings. Waste audits cannot be repeated on the same building within a period of one year. The waste audits will include the following steps, including waste collection, sorting, weighing and data recording, reporting, and completing waste tracking forms.

1. Conduct an audit of the building’s entire ongoing consumables waste stream (not durable goods or construction waste from facility alterations or additions). The entire waste stream includes both the material that is headed to the landfill and the material bound for recycling facilities.
2. Use the audit’s results to establish a baseline that identifies the types of waste in the waste stream and the amounts of each type by weight or volume.
3. Identify opportunities to increase recycling and waste diversion.
4. Share the audit results with building occupants and implement new recycling initiatives, if necessary.

**Electronic waste take back**
Currently old computers are sent to Federal prisons for refurbishing and reclamation. While the social good of teaching valuable work skills to those incarcerated, there is no doubt that trucking the computers thousands of miles to Florida and Missouri, increases the university’s carbon footprint and greenhouse gas pollution. Therefore, UDC should require the vendors that provide the computers, cell phones, printers, copiers and other electronic devices to the university take back the device once it has reached the end of its lifecycle. The states of Maryland and Virginia have passed electronic take back laws. Although the District does not have such a law, the General Counsel’s office has determined that the current procurement policies of the District and UDC do not prohibit such a take back policy from being instituted here.

**Packaging take back**
Similar to the electronic take back policy, packaging take back requires vendors to retrieve all packing material including cardboard, plastic wrap and Styrofoam. Again this policy needs to be instituted for all procurement solicitations in order to reduce the university’s waste stream.

**Data Reporting**
The lack of data, specifically monthly reports related to the composition of the waste stream, has compromised UDC’s ability to manage and verify its performance. This basic level of data is also required for the STARS (Sustainability Tracking Assessment and Reporting System) report which the university committed to submit by August 1, 2011. The waste management vendor, Urban Service System Corporation, will be responsible for monthly reporting on weights hauled from campus for each component of the waste stream. The key metric to be reported is the university’s diversion rate. The diversion rate shall be calculated as the percentage weight of UDC’s total waste stream that is not sent to landfill. Waste not sent to landfill includes recycled, composted, donated, refurbished, reclaimed by supplier or manufacturer, or otherwise reused after its use by the university.

The janitorial vendor will make every effort to support the collection of the following data:

- Materials sent to landfill (true waste)
- Materials diverted from landfill
  - Recyclable materials
    - Glass
    - All recyclable plastics
    - Aluminum and other metals
    - Cardboard
    - Mixed Paper (including newspaper)
  - Recyclable electronic waste (computers, cell phones, printers, faxes, etc.)
  - Compostable material
  - Additional materials diverted from landfill via other means

**Conclusion**
This memo provides general and specific cost savings opportunities by implementing a green cleaning program. The cost savings can only be best realized if the progressive policies are adopted prior to any solicitation, selection, contract negotiation and execution are completed.
**Appendix B**

**List of Task Force Members**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adenike Ogunbode</td>
<td>Student, College of Engineering and Applied Sciences</td>
</tr>
<tr>
<td>2.</td>
<td>Alvin Venson</td>
<td>Campus Services</td>
</tr>
<tr>
<td>3.</td>
<td>Barbara Jumper</td>
<td>Vice President for Facilities and Real Estate</td>
</tr>
<tr>
<td>4.</td>
<td>Barbara J. Riddick</td>
<td>Risk Management</td>
</tr>
<tr>
<td>5.</td>
<td>Benjamin G. Marcus</td>
<td>Student</td>
</tr>
<tr>
<td>6.</td>
<td>Bryant E. Evans</td>
<td>Adjunct Professor, School of Business and Public Administration</td>
</tr>
<tr>
<td>7.</td>
<td>Coy McKinney</td>
<td>Student, David A. Clarke School of Law School</td>
</tr>
<tr>
<td>8.</td>
<td>Clearance Pearson</td>
<td>Professor, Department of Urban Architecture, CAUSES</td>
</tr>
<tr>
<td>9.</td>
<td>Deborah Lyons</td>
<td>Associate Professor, School of Business and Public Administration</td>
</tr>
<tr>
<td>10.</td>
<td>Diane Hyman</td>
<td>CAUSES Associate Director, AES</td>
</tr>
<tr>
<td>11.</td>
<td>Erik L. Thompson</td>
<td>Senior Project Manager, Facilities and Real Estate</td>
</tr>
<tr>
<td>12.</td>
<td>Gloria Wyche-Moore</td>
<td>Dean, CAUSES</td>
</tr>
<tr>
<td>13.</td>
<td>Howard Ways</td>
<td>Co-Chair, Office of the Provost/Vice President for Academic Affairs</td>
</tr>
<tr>
<td>14.</td>
<td>Iveracottis Short</td>
<td>CAUSES Sustainable Agriculture Project Specialist, AES</td>
</tr>
<tr>
<td>15.</td>
<td>Joe Libertelli</td>
<td>Director of Alumni Relations, David A. Clarke School of Law</td>
</tr>
<tr>
<td>16.</td>
<td>Josh Lasky</td>
<td>Co-Chair, Office of the Provost/Vice President for Academic Affairs</td>
</tr>
<tr>
<td>17.</td>
<td>Jovita Wells</td>
<td>Director, Office of Sponsored Programs</td>
</tr>
<tr>
<td>18.</td>
<td>Karen Wong</td>
<td>Business Analyst, Office of the Chief Financial Officer</td>
</tr>
<tr>
<td>19.</td>
<td>Kimberly Pennamon</td>
<td>Associate Vice President for Student Affairs</td>
</tr>
<tr>
<td>20.</td>
<td>Laurie Morin A.</td>
<td>Professor, David A. Clarke School of Law School</td>
</tr>
<tr>
<td>21.</td>
<td>Lillie Monroe-Lord</td>
<td>CAUSES Director, Center for Nutrition, Diet and Health, CES</td>
</tr>
<tr>
<td>22.</td>
<td>Linda Carmichael-Freeman</td>
<td>CAUSES Program Coordinator, Office of the Dean</td>
</tr>
<tr>
<td>23.</td>
<td>Mary Harris</td>
<td>Chief Procurement Officer</td>
</tr>
<tr>
<td>24.</td>
<td>Maxwell Fairweather</td>
<td>CAUSES Environmental Project Specialist, AES</td>
</tr>
<tr>
<td>25.</td>
<td>Mike Ewall</td>
<td>Student, David A. Clarke School of Law School</td>
</tr>
<tr>
<td>26.</td>
<td>Noel Richey</td>
<td>Student, School of Business and Public Administration</td>
</tr>
<tr>
<td>27.</td>
<td>Patricia Thomas</td>
<td>Director of Athletics</td>
</tr>
<tr>
<td>28.</td>
<td>Patrick F. Bateman</td>
<td>Legislative Assistant, Government Relations</td>
</tr>
<tr>
<td>29.</td>
<td>Pradeep K. Behera</td>
<td>Associate Professor, School of Engineering and Applied Science</td>
</tr>
<tr>
<td>30.</td>
<td>Rachel G. Perry</td>
<td>Student, CAUSES</td>
</tr>
<tr>
<td>31.</td>
<td>Selvon Waldron</td>
<td>Student, School of Business and Public Administration</td>
</tr>
<tr>
<td>32.</td>
<td>Stacie Mills</td>
<td>Office of the General Counsel</td>
</tr>
<tr>
<td>33.</td>
<td>Thomas Kakovitch</td>
<td>CAUSES, Environmental Science Department</td>
</tr>
<tr>
<td>34.</td>
<td>Tolessa Deksissa</td>
<td>CAUSES, Director, Professional Science Master’s Program</td>
</tr>
<tr>
<td>35.</td>
<td>Okolo Thomas-Toure</td>
<td>Student, School of Business and Public Administration</td>
</tr>
<tr>
<td>36.</td>
<td>William Hare</td>
<td>CAUSES Associate Director, CES; Director of WRRI</td>
</tr>
<tr>
<td>37.</td>
<td>William Clemmons</td>
<td>Procurement</td>
</tr>
<tr>
<td>38.</td>
<td>Tracy Williams</td>
<td>Procurement</td>
</tr>
</tbody>
</table>
## Supplemental Recommendation List

### Material Flows
- Determine that electronic waste is not going into landfills, incinerators or to developing countries for disposal.
- Reassess the practice of sending used computers to out of state Federal penitentiaries to be refurbished by prison labor in order to reduce the carbon emissions. An alternative approach is to send the computers to a locally based nonprofit for refurbishing.
- Develop standards for office furniture and electronic equipment purchases that utilize higher green standards.
- Institute a green procurement and purchasing monitoring system to determine how much of the university’s expenditures are going towards green goods and services.
- Provide green product list for supply requisitioners and develop a Green Preferred Vendors list.
- Include sustainability clauses in all contracts.
- Extend producer responsibility in contracts.
- Explore adopting a zero waste goal.
- Revitalize the UDC recycling program so that it performs equal to the District wide diversion rate.

### Food Systems
- Promote and expand the existing UDC Farmer’s Market which operates March to November.
- Provide for healthy food options in all on-campus vending machines.
- Explore service learning opportunities such as having students participate in the production of the food and all the processes of growing, cooking, and disposing (composting) of the food.
- Develop partnerships with external organizations to promote healthy food production.
- Increase community involvement.
- Identify additional funding sources.

### Energy, Water, and Climate
- Retrofit water fountains with the water bottle filler faucets.
- Replace old recycling containers with new, more distinctive and more durable containers.
- Prepare a package for the District government on the necessity for allowing Energy Service Company financing for to expedite energy retrofit.
- Complete the existing green roofs project throughout the campus.
- Complete the design and construct the new Student Center by the Fall 2012.
- Complete the window replacement project from Winter 2010.

### Student Development and Community Engagement
- Conduct environmentally themed events such as:
  - Daily and weekly walks around campus
  - UDC Eco-Thon
  - Weekly brown bag/pot luck lunches
  - Monthly cafes (semi-formal gatherings)
  - On-line green calendar
  - Establish an Alumni Sustainability Council
### Planning and Administration

- Install motion sensitive light switches in classrooms and offices
- Discontinue individual office trash pickup by housekeeping staff and switch to the mini-bin program
- Institute printer controls to eliminate excessive printing
- Reduce the number of individual printers used by moving to a shared printer
- Reduce the number of redundant electrical fixtures that link coffee makers, toasters, and refrigerators by instituting a common kitchen area
- Adopt a centralized printing policy like the one utilized by the Community College

### Scholarship, Research and Service Learning

- Conduct sustainability workshop for faculty development day each fall and spring semesters
- Create a sustainability module for EVERY course during Green Week in April
- Add sustainability link to the LRD web portal
- Add bonus points on the SEED Grant for proposals that provide sustainability projects
- Provide incentive grants for joint faculty/student research projects
- Develop common introductory course on sustainability with established conceptual framework
- Conduct a sustainability research conference for Washington, DC metro area. Include other universities.
- Create opportunities for cross departmental collaboration between faculty and students
Appendix D

Selected Best Practices and Peer Institution Research

University of Central Florida
- Use solar thermal and solar PV to reduce grid purchased energy
- Recycling rate goal 2020 – 75%
- Promote the use of bikes and mass transit
- 1,500 bulbs were removed, replaced, or reduced to optimize the performance and increase energy efficiency
- The total cost of the project was $26,700. UCF estimates that Rosen College saved $36,500 with a nine month simple payback

Daemen College
- 2,900 graduate and undergraduate students
- Since 2003, require 60 hours of service learning plus reflective paper, journal, blog, etc.
- Consciously connect arts to sustainability projects through service learning projects
- Restored an eco-trail through an old landfill with interpretive stations using recycled materials – old tree stumps, parking bumpers, etc. – over a five year period (24 students)

University of Illinois
- Established the Center for the Advancement of Reuse of Electronic Waste
- Sustainable Campus Environment Fee: A refundable fee to help establish a sustainable campus environment by financing initiatives such as green buildings, engagement of the university community, recycling, energy efficiency, and environmentally responsible purchasing
- Cleaner Energy Technologies Fee (CET): A fee used to purchase cleaner energy technologies for campus including solar, wind, hydrogen and geothermal projects, energy efficiency purchases, and the purchase of renewable energy from non-university producers

Lynchburg College
- 2,600 graduate and undergraduate students
- Conducted water audit of its residents halls
- Average student uses 203 gallons of water per week
- Average sink use is .82 gallons of water
- University had 7,205.88 loads of laundry done per month
- Executed a $4.65 million energy performance contract with Ameresco, Inc.

Indiana University
- Passed along 1,500 old computers to surplus store to be sold
- 3,000 computers sold for parts
- 2009- collected 834,000 pounds of electronic waste
- 2010 – collected 650,000 pounds of electronic waste
- Provide pick up service to other departments – collected 33,000 pounds

Georgia Southern University
- Founded in 2008 as the Office for Sustainability in the College of Science and Technology
- Evolved in 2009 into the Center for Sustainability
- Faculty led
- Provide on-line schedule of sustainability events
- Required Coca Cola to install energy savings devices on their on-campus vending machines
- All students must take two environmental science classes to graduate (service learning is required)
- Student can design their own service learning project with faculty approval
- All service learning classes require a reflective paper

**Rutgers University – Camden**
- 500 students live on campus – 6,000 commute
- No sustainability office or officer
- Interdepartmental sustainability task force led by the Associate Dean of the Business School
- Promoted recycling, energy efficiency and renewable energy
- Eliminate the “empty truck syndrome”
- Installed solar powered trash compactor receptacles (reduced pick up from once a day to once a week)
- Required Dell to take back packaging as well as electronic waste
- Established a checklist for purchasing department and product/services pre-qualification form

**University of Oregon – Sustainable City Year Program**
- Use existing courses, existing assignments
- Focus on a single geographic region
- Point all academic efforts toward that region
- Perform an intensive, interdisciplinary investigation of the problems facing that city
- Involve 10 professors, 30+ courses, and 500 students
- Perform 80,000 hours of direct service while meeting learning outcomes
- Become a low-cost idea mill for city agencies
- Students obtain real experience and make connections with potential future employers
- Renew the social contract of the public university
- Increase relevance!

**American University**
- Students did a survey of drinking fountains on campus
- Found 100 fountains, many of which were out of service
- Performed a comparative analysis of water from the tap vs. drinking water
- Deer Park costs 900 times as much as tap
- Compared monetary costs, embodied energy, transparency, health and safety, and third-party standards
- Worked with capital projects managers to spec a water bottle filling spout as a retrofit to all on-campus fountains and planned in new construction