

# GEORGE MASON UNIVERSITY

## Road Map to Sustainability for Auxiliary Enterprises and University Services

FY 2009

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## Purpose

The purpose of this document is to provide a sense to what these campus areas have done in the past regarding sustainability, what they have done this fiscal year, and where they are going in the future. The mile markers are included to provide information as to what has been accomplished this fiscal year. While there are many things that can be done as possible sustainability efforts, what is listed in the “future” projects section, are areas that have been identified as priorities either in the short-term or long-term. Through these projects we hope to support university wide sustainability achievements and efforts, such as the American College and University Presidents Climate Commitment, and further foster a sustainable community at George Mason University.

## Scope

This road map focuses on departments under Auxiliary Enterprises and University Services as illustrated below:

- Bookstore
- Child Development Center
- Mail Services
- Mason Card Office
- Mason Dining
- Office of Housing and Residence Life
- Patriot Center
- Print Services
- Student Centers
- Vending

Outreach, educational, and engagement initiatives will also be discussed. Finally, the road map will connect to the larger campus sustainability efforts.



# Department Sustainability Projects



## *Past*

The Bookstore has done many sustainability projects in the past ranging from recycling to sustainable school supplies. These projects are: environmentally friendly products school supplies, recycled shirts, selling reused books, recycling, reuse packing materials, and cardboard reuse.

## *Present*

This year the bookstore pursued many new initiatives. The largest impact was likely the Books for Africa book drive that was partnered with University Services and the Center for Leadership and Community Engagement. This drive collected 1,790 books and assisted with raising funds for Alternative Spring Break and collecting books for schools in Africa.

Other projects that were researched and discussed included: marketing for sustainability efforts, tote bags made of recycled materials, and graduation gowns made of sustainable materials.

## *Future*

- Incorporate additional eco-friendly items such as Green Books and Knights Apparel into the Bookstore
- Enhance marketing of sustainable initiatives
- Utilize graduation gowns made of sustainable material
- Distribute biodegradable bags or reusable bags instead to reduce plastic bags used presently



**Figure 1.** Many of the boxes filled with books for Books for Africa.

## Mile Markers

- **1,790** books collected through the Books for Africa book drive
  - 1,156 in the Spring filling 46 boxes
  - 634 books in the Fall
- **\$809,125** received in revenue from eco-friendly products as a company that are carried in Mason's Bookstore
- **28** eco-friendly items sold in bookstore



### ***Past***

Prior to this year, the Child Development Center has incorporated environmental topics and recycling into their center. In the past cleanups have also been done with students.

### ***Present***

This year the Child Development Center pursued a variety of efforts. One effort was having a session at their Professional Development Day on “Greening Child Development Centers” which was presented by the Sustainability Projects Manager for University Services. Other efforts include: Collecting Capri Sun Pouches for school supplies, cleanups, recycling, and The Big Green Help.

### ***Future***

- Pursue grant funding for garden
- Continue to incorporate environmental education into curriculum
- Communicate sustainability efforts to parents and larger Mason community

### **Mile Markers**

- **6** classes (all of the classes at the CDC) that have incorporated environmental education into their curriculum this year
- **5** environmental projects done at the CDC this year
- **20** class themes concerning the environment



### ***Past***

Before this year, recycling has been the primary concern for Mail Services. Also reusable envelopes for inter-office mail have been in place.

### ***Present***

This year two additional bins were added to collect peanuts and air pockets for reuse. Junk mail reduction was also explored, as well as improved signage for the SUBII area recycling bins.

### ***Future***

- Explore junk mail reduction program in more depth
- Enhance SUB II Signage with improved signage

### **Mile Markers**

- **42,315** pounds of recycling collected annually by Mail Services
- **35,805** pounds of recycling when classes are in session
  - 155 pounds per bin
  - 7 bins each week for 33 weeks
- **6,510** pounds of recycling collected during lighter periods
  - 155 pounds per bin
  - 3 bins each week for 14 weeks
- **4** new signs on the bins to improve cardboard and mixed paper recycling



### ***Past***

The Mason Card Office has made great efforts to reduce paper use and reuses paper quite often. The office has also recycled paper.

### ***Present***

This year, the office researched many sustainability initiatives. The office researched environmentally friendly card options and researched the possibility of automatic Photo ID kiosks. Receipt recycling was also publicized using the card office system.

### ***Future***

- Promote sustainable ID accessories (lanyards, etc.)
- Purchase IDs made from sustainable materials if available
- Continue research on automated Photo ID kiosks
- Promote receipt recycling

### **Mile Markers**

- **3** separate times receipt recycling messages were changed
- **2** reusable flyers produced to help reduce brochure waste
- **Multiple** vendors researched regarding different sustainable card options
- **Multiple** vendors researched regarding automatic Photo ID kiosks



### ***Past***

Before this year, Mason Dining has done a variety of efforts to become more sustainable. Dining has sold reusable mugs and plastic bottles to encourage reuse rather than single use containers. Recycling was also in many areas including the administrative offices. Cardboard recycling has also been in place. Bulk condiment containers have also been used to help with portion control of condiments which helps to reduce waste. Used oil is also reused. China and reusable flatware are also utilized. Some leftover food has been donated in the past to reduce waste.

One napkin at a time vending has also been implanted in such areas as the JC to reduce waste. Mason Dining also purchased seafood sustainably. Some products were local and some coffee products were Fair Trade. To further reduce waste, Mason Dining utilizes practices, such as “eat what you take”, batch cooking, cooking to order, and cooking from scratch. Venues and areas that are not being used during the summer are shutdown. Some green cleaning products are also used for maintenance. Mason Dining also provides options for vegetarians and vegans. There is also a dietician that assists with healthy food alternatives and provides guidance for students. A “Balance Mind, Body, and Soul” kiosk and program has also been used to promote nutrition.

In regards to technology, faucet aerators can be found in the JC helping to conserve water consumption. Further assisting with energy conservation are other technologies used by Mason Dining including an air cooled refrigeration system, opti-rinse dishwasher, combi-ovens, variable speed hoods, and electric motor carts.

### ***Present***

This year Southside opened, which brought with it many new sustainability initiatives to Mason Dining. To reduce solid waste, Mason Dining purchased a pulper machine. An ECorect composter machine was also purchased through a partnership with University Services and the Office of Sustainability. New technologies in Southside have also reduced water and energy use. These include a new dishwasher and ovens. Trayless dining in Southside, and now the Bistro, have reduced water consumption and food waste, as well. Gold Rush also provides only biodegradable materials for flatware and containers.



Some efforts have also been taken to promote sustainability at Southside. Mason Dining also competed in RecycleMania helping to promote composting efforts. Efforts have also been publicized in presentations, such as Leadership Mason 2008, Sustainability Tour for Patriot Leaders, and others. Behind the scenes tours of Southside have also been given to help promote Southside's efforts. A brochure regarding sustainable efforts was also created to bring greater awareness to what has been done to promote sustainability at Southside.

Green catering has also been explored this year. Some elements may include local foods and offering biodegradable materials instead of plastic options for events.



**Figure 2.** Southside Dining Hall

### ***Future***

- Utilize pulper in Johnson Center to expand composting efforts
- Implement composting network
- Develop comprehensive food sustainability program using a “cyclical approach”
- Add other areas for composting efforts to be included for RecycleMania
- Add more options and document percentages for:
  - Local foods
  - Vegetarian and Vegan Options
  - Organic
  - Fair Trade products
- Utilize community garden on campus for Southside
- Maintain green facilities and improve facilities with sustainable technologies
- Enhance outreach and education regarding sustainability
  - Presentations, signage, press releases, literature, trainings
  - Information available for interested parties
- Design a standard food donation program
- Apply for recognition programs for Southside's Sustainability Efforts:
  - Virginia Green
  - Green Restaurant 4.0 Standard- 3 Star level
- Explore Green Seal Standard 46 (GS-46) (Bronze Standard) for Southside
- Expand biodegradable flatware
- Reduce plastic bag consumption in to-go areas and convenience stores;
- Replace plastic bags with more sustainable options (ex: biodegradable bags or reusable bags (ex: ChicoBags))
- Implement an environmental training program on environmental and social responsibility to match GS46
- Develop energy management plan for Southside
- Develop waste reduction and management plan for Southside
- Utilize patio space for herb and container gardens
- Promote green catering program





**Figure 3.** Biodegradable containers found at Southside's Gold Rush.



**Figure 4.** Southside's pulper machine.



**Figure 5.** Composting bin in Southside featuring signage on bin and Biobag.

## Mile Markers

- **Approximately 300** Southside Brochures distributed
- **Approximately 75** tours behind the scenes tours given featuring new sustainable technologies
- **45.93** tons of food waste collected for composted as of June 11, 2009
- **1<sup>st</sup>** Year competing in RecycleMania for Mason!
  - Overall ranking in Targeted Material-Food Service Organics- Competitive Division
    - **#1**-Colonial Athletic Association
- **1.5** millions of gallons saved annually with a pulper versus a conventional waste disposal system
- **250** gallons saved per hour in our new dishwasher compared to a conventional dishwasher
- **59%** reduction in water use from using new dishwasher and a **61%** reduction in energy use
- **\$15,803** saved from water, sewage, and heats savings with new dishwasher
- **1,500** (approx) gallons of water saved daily due to trayless dining in Southside
- **25%** reduction of food waste from trayless dining in Southside



### ***Past***

In the past, The Office of Housing and Residence Life (OHRL) has done many environmental programs and efforts. Students and staff have done environmental programs for residents. There is also a living and learning community, *Green House*, that helps to promote environmental philosophies. Recycling pilots regarding individual room bins have also been conducted. According to the 2007 Sustainability Assessment, the kitchen and laundry areas utilize Energy Star technologies. Also, approximately 95% of the light bulbs use T-8 ballasts over T-12. Most areas contain low flow shower heads and low flow toilets (2007 Sustainability Assessment). Recycled toilet paper and paper towels has also been purchased in the past (2007 Sustainability Assessment). The Office of Housing and Residence Life has also participated in Mason Energy Challenge through the Office of Sustainability.

### ***Present***

OHRL has established a Greening Group that has put on green weeks featuring sustainability related programming. They have also been instrumental in promoting environmental awareness with their professional staff members through many in-house competitions. Some of their programs included *Greening Bingo*, *Fall Carnival*, and *Sustainable Fear Factor*. Resident Advisors have also done programs with environmental themes. Housing has also presented on their greening efforts at a number of conferences this year and brought Fair Trade coffee to further promote sustainability.

The Greening Group has also made a website < [housing.gmu.edu/goinggreen/](http://housing.gmu.edu/goinggreen/)>. This website features the Housing Climate Commitment which has over 80 signatories. The website also links to the American College and University Presidents Climate Commitment or (ACUPCC).

In regards to solid waste management and waste reduction, many projects have been done this year. A variety of drives have been conducted this year. Housing has collected cell phones, ink cartridges, batteries, and shoes. Housing has also exchanged old light bulbs for new CFLs. A custom-made recycling center made by a Mason art student, pictured in Figure 6, has been added to Northern Neck to further recycling efforts. There



**Figure 6.** Recycling Center in Northern Neck



**Figure 7.** Greening Group

are also more recycling bins in hall rooms to better assist residents with recycling. Narrow margins have also been used to reduce paper consumption at the OHRL administrative office.

Finally, relating to purchasing, Housing has switched to recycled paper over “regular” paper in their administrative office for printing purposes in an effort to become more sustainable.

## ***Future***

- Increase size of Greening Group
- Increase budget of Greening Group
- Improve Greening Housing Website
- Continue environmental programming
- Monitor energy and other statistics using technology
- Explore the idea of implementing an annual environmental residence hall competition or have a yearlong effort with a sustainability component
- Explore the idea of a smaller composting bin for OHRL in more depth
- Increase recycling with more containers
- Increase recycling with a bin per room that is included in Housing inventory
- Continue to present on efforts and achievements
- Enhance visibility of Green House and what they are doing
- Add additional low flow showerheads and low flow toilets where applicable
- Explore Green Move-in

(Note: Patriot Pack Out is already a University Relations effort)

- Explore publication regarding efforts in national trade magazines or journals
- Support LEED certified building operations for residence halls
- Provide education to residents regarding LEED and what it means to “build green”
- Explore Green Representative program for residence halls through university-wide program in more depth
- Incorporate sustainability more into trainings both student and staff

### **Mile Markers**

- Recycling statistics
  - **1** Recycling Center
  - **24** Cell Phones
  - **125** ink cartridges
  - **1** Shoe recycling night
- **80** CFL light bulbs exchanged for light bulbs belonging to residential students
- **4** large environmental programs done throughout the year
- **Many** In-house competitions (including energy and recycling)
- **Narrow** margins used at OHRL administrative office to reduce paper consumption
- **80** signatories for the Housing Climate Commitment
- **2** conferences where Fair Trade coffee was brought and used
- **3** presentations at Housing conferences on Greening efforts done at Mason



### ***Past***

In the past some efforts have been done to be more sustainable. These efforts include: general recycling, low flow toilets, green cleaning products, green vendors utilized in the administrative office, reuse of construction materials, condiments in larger containers, natural gas vehicles, Mason green-dining venue research, green night, pallet reuse, and aerators for sinks.

### ***Present***

This year recycling and solid waste was the primary topic that was explored. Recycling centers, special events recycling, recycling facilitators, signage, and Big Belly solar bins were researched. Tabling and marketing opportunities were also explored.

### ***Future***

- Market sustainability in athletics publications
- Promote sustainability using Message center
- Enhance recycling efforts with more bins
- Improve recycling signage
- Enhance recycling with athlete pictures with sustainability efforts
- Explore recycling facilitators program
- Explore recycling partnership with student organizations
- Procure recycling centers
- Procure sustainable banners with recycling messages to display to illustrate commitment to sustainability
- Advertise green special events as part of a campus wide effort
- Provide training for Janitorial service companies on recycling efforts
- Provide signage for vendors regarding sustainability efforts
- Publicize recycling and sustainability efforts visually near exits
- Utilize tabling as part of strategic campus sustainability outreach and communications





**Figure 8.** Patriot Center Box Office



**Figure 9.** Patriot Center Aerial View

### **Mile Markers**

- **11** Practices and Projects currently being done
- **7** projects explored this year



### ***Past***

In the past some efforts were in taken regarding sustainability. These efforts include: replacing copiers with digital mode copiers, using web based software, using recycled paper, recycling printer cartridges, using recycled paper in administrative copiers, and reusing copier and printer parts.

### ***Present***

This year Print Services has explored green toners, soy based inks, a computer screen saver program, double-sided printing, and recycled paper option and marketing for the JC copy center. The screen saver program will be in place in the Fall and double-sided printing will be in place in the computer labs this Fall, as well.

### ***Future***

- Research recycled paper options to have on hand for university patrons
- Promote sustainable efforts
- Document printing rates
- Explore the creation of a partnered system to promote sustainable printing options using soy based inks
- Replace JC Copy Centers copy machines with more much more efficient copiers

### **Mile Markers**

- **30%** recycled paper used in administrative copiers and coin operated machines
- **Approximately 50%** less copies have been made using Print Services compared to FY 2006-2007 numbers



### ***Past***

Prior to this year Student Centers has implemented a variety of sustainability initiatives. Workshops have been incorporated into their staff trainings. Newsletters have also featured sustainability topics. Housekeeping also uses environmentally friendly cleaning products and recycled paper towels. Online work order, inventory control systems, scheduling systems, and rental systems have also been utilized to reduce paper use.

With regard to facilities, non-electric signage for Corner Pocket has been used. Reupholstering of furniture instead of purchasing new furniture has also been done. HVAC filters have also been maintained to enhance air quality.

### ***Present***

This year student centers made many strides regarding sustainability. Many new recycling bins were added to sustainability and many garbage bins were removed. Many furniture pieces were also reupholstered. Fifteen neon signs were also removed. Hand sanitizers were added in nine locations. Foam soap is now used which reduces soap waste. Around 2/3 of the Student Centers newsletters also featured sustainability topics.

### ***Future***

- Add recycling to directories
- Add Southside signage regarding recycling and composting maps
- Assist with Big Belly solar pilot project
- Establish energy reduction goals for overall student centers and work towards X% reduction
- Establish water reduction goals for overall student centers and work towards X% reduction
- Explore ISSA Cleaning Industry Management Standard
- Enhance recycling efforts
- Incorporate environmental training into more staff trainings

### **Mile Markers**

- **10** newly added recycling bins
- **36** less garbage bins
- **20** pieces of furniture reupholstered
- **15** neon signs removed
- **66%-** Sustainability issues were addressed in 6 out of the last 9 newsletters





### *Past*

In the past, misers have been used to conserve energy consumption.

### *Present*

This year, miser use has been documented. Through a partnership with Wellness by Mason healthier vending options have been made available. Through The Coke Give it Back Campaign, recycling was further promoted. The Coca-Cola recycling trailer visited campus twice, one of only a handful of campuses that received two visits. A recycling competition was also conducted between residence areas and partnered with Mason Field Day. Winning areas will be receiving certificates and the winning area pop-a-shot basketball game. Posters, t-shirts, magnets, snipes, and stickers have been used to promote the campaign. Special event recycling bins were also used at many events this year.

### *Future*

- Increase miser use
- Create more education about proper use of Misers
- Create plan for possible reduction of vending machines based on Vending machine study
- Incorporate energy efficient Green machines
- Research energy efficient vending machines available by Coke
- Create more awareness of healthy options
- Add signage for healthy options
- Materials distribution
- Enhance recycling competition
- Enhance special events recycling efforts



**Figure 10. Recycling Competition on April 21, 2009 part of Mason Field Day**

### **Mile Markers**

- **Sustainability and Wellness**
  - **64** snack machines feature healthy food options
  - **50%** of vending machines currently have misers
- **Coke Give it Back Campaign**
  - **167** vending machines where snipes promoting the Coke Give it Back campaign were placed
  - **Hundreds** of posters slated for distribution for Welcome Week
  - **227** magnets given away
  - **55** special event recycling boxes used
  - **1,312** bottles and cans collected during the Recycling Competition on April 21, 2009
  - **2** Coca-Cola Recycling Trailer Visits



**Figure 11. Coke Trailer**

# Outreach, Educational, and Engagement Initiatives

## *Past*

In the past, campus sustainability efforts have mainly been led through the Office of Sustainability or student groups. Such efforts have included Earth Day events, presentations, and the construction of a website. Mason dining recently added a website featuring information on sustainability and wellness.

## *Present*

This year many new initiatives have been done to help promote sustainability in University Services and Auxiliary Enterprises. The largest effort is farmers' market, Smart Markets at Mason. This market has brought more awareness about local foods, information about sustainability, and new fresh, nutritious items to the university community. The market has also assisted with community development in multiple ways. One way is through offices and departments going to the market together as a community building experience. Another way is through the expressed support and assistance on events by many offices, departments, and student groups including: University Life, Office of Sustainability, Student Activities-Program Board, Student Government, Center for Leadership and Community Engagement, GMU Environmental Awareness Group, Alumni Affairs, Human Resources, Student Media, and Student Centers. Each of these entities helps to make the market more successful and provide and engaging and educational opportunity that enhances campus life.

This year a sustainability column through *The Broadside* and *Connect to Mason*, was also utilized to provide information regarding sustainability happenings and projects at Mason. This effort, led by University Services, was shared with the Office of Sustainability to provide information regarding many efforts at Mason.

A newsletter for Office of Administration sustainability projects was also created this year to provide more awareness regarding such efforts. The newsletters have been distributed to many administrators in various offices at the university.

Southside table tents were also created this year to engage people about sustainability and other happenings on campus. This tool will most likely be more utilized this year by the campus community.

Receipts were also used this year to provide information about campus events and receipt recycling. A larger receipt recycling program is also in the works for this year.

The cubes were also brought to campus this year. These provide a sustainable way to market events and programs that can be reused many times. The cubes, thus far, have been used to advertise Welcome Week, the farmers' market, and other campus events.

Social networking was also utilized to publicize different media. Print Services and Smart Markets at Mason have utilized Facebook. Smart Markets at Mason also has a listserv that publicizes events.

Finally, sustainability has been discussed in presentations and publications. Over 145 people have been reached through presentations. Some examples of presentations include talks for Housing and a presentation at Leadership Mason. Articles, some of which written by the sustainability projects manager, that have highlighted sustainability efforts have been in seen in the *Broadside*, *College Services Magazine* and the *Gazette*.

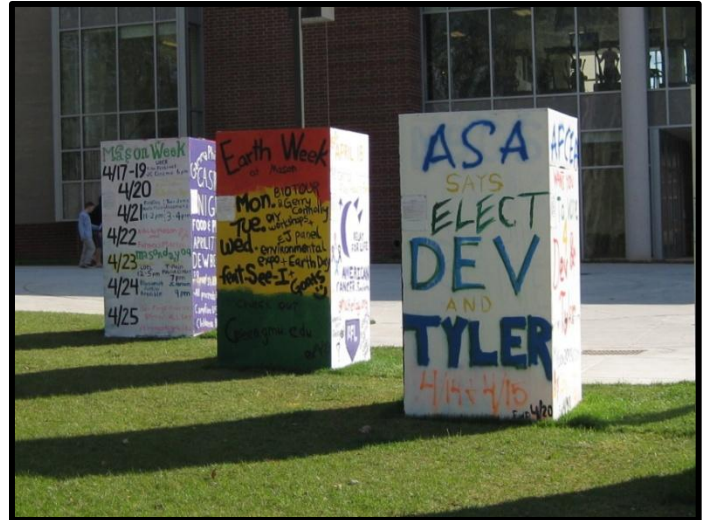
## ***Future***

- Promote table tents as an opportunity to provide information about campus happenings
- Utilize receipts to provide information about receipt recycling and campus events
- Promote web presence- once website goes online
- Utilize the market as a gathering place and learning opportunity for the campus community
- Present sustainability efforts at conferences

## **Mile Markers**

### **Marketing**

- **Cubes**
  - 4 cubes brought to Mason to promote events
- **In the Media**
  - 7 articles in sustainability column for Connect2Mason/Broadside
  - 2 in brief on Connect 2 Mason
  - 3 Gazette mentions
  - 3 mentions on GMU Websites
  - 1 Ad and 1 Mention in *VoxPop*
  - Multiple Sustainability E-newsletter mentions
  - Multiple mentions in NACAS College Services Magazine
- **Quarterly Newsletters**
  - 2 Quarterly Newsletters



**Figure 12. Three of the Cubes at Mason**



**Figure 13. Sample vendors at Smart Markets at Mason**





**Figure 14. Smart Markets at Mason in Lot K**

## Mile Markers

- **Smart Markets at Mason**
  - 14 Markets held (as of 08/05/09)
  - 12 Vendors overall (as of 08/05/09)
  - 4 events held
    - 2 Summer Socials
    - 4 Scheduled for Fall
  - 10 Expressed Supporters
  - 5 signs created from Print Services to publicize the market
  - 2 Federal grants submitted
  - *America's Favorite Farmers Market Contest*
    - 369 Votes
    - 9<sup>th</sup>- Overall Ranking
    - 3<sup>rd</sup>- Small Market Ranking

## Mile Markers

### Marketing

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- **Quarterly Newsletters**
  - 2 Quarterly Newsletters



**Figure 15. Staff for Life, a vendor at Smart Markets at Mason**

## ***Campus Sustainability Efforts***

The sustainability projects manager has been involved with many campus-wide sustainability efforts. These efforts range from events to programs to committees. The campus sustainability efforts are listed below:

- Climate Action Plan
- Earth Week 2009
- Greening Orientation
- RecycleMania
- Recycling Projects (Special Events recycling, receipts, and Waste Minimization Plan)
- Recycling Working Group
- Sustainability Council
- Welcome Week Sustainability Initiative

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**Consulted Resource:**

[http://green.gmu.edu/Downloads/GMU\\_Sustainability\\_Baseline\\_Assessment\\_2007.pdf](http://green.gmu.edu/Downloads/GMU_Sustainability_Baseline_Assessment_2007.pdf)