

Georgia College & State University Sustainability Council

Annual Report April 2010

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Background

The Georgia College & State University Sustainability Council was created in April 2009 to help “identify and promote actions and initiatives that will enhance sustainability on campus.”¹ As part of its charge from President Dorothy Leland, the council is required to submit an annual report which assesses campus practices and initiatives and offers recommendations for actions that will move Georgia College toward a more sustainable future.

The GC Sustainability Council is made up of dedicated students, staff, and faculty who work together to assess and promote activities related to sustainability issues. The council consists of three students, five staff, and seven faculty. The council reports to the Vice President of Business and Finance, Pete Shields, who also serves as on the council in an advisory role. The council held monthly meetings of the full committee, as well as monthly meetings of several working groups. The work groups were designed to help the committee of fifteen members divide their attentions to seven different areas of concern, and incorporate additional volunteers into council activities.

This document serves as the 2010 annual report of the Sustainability Council, and offers an opportunity to assess the current situation of sustainability at Georgia College, as well as provide recommendations for directions that the university could move in to achieve a more sustainable future.

GCSU Sustainability Council 2009-10 Council Members

Name	Email	Affiliation	WorkGroup
Pete Shields	pete.shields@gcsu.edu	0-VPBF	
Kevin Murner	kevin.murner@gcsu.edu	1-Physical Plant	Energy
Susan Daniels	susan.daniels@gcsu.edu	1-Physical Plant	Building
Greg Brown	greg.brown@gcsu.edu	2-Auxillary Services	Transportation
Mark Craddock	mark.craddock@gcsu.edu	3-Univ Housing	Building
John Bowen	john.bowen@gcsu.edu	4-Staff Council	Water
Doug Oetter	doug.oetter@gcsu.edu	5-RPIPC	Materials
		6-Resident Student Assoc	Materials
Kelley Smith	kelley_smith@ecats.gcsu.edu	7-Env Sci Club	Transportation
Lauren Buchheit	lauren_buchheit@ecats.gcsu.edu	8-Student Govt Assoc	Materials
Sam Overt	sam@ovettbrothers.com	8-Student Govt Assoc	Materials
Caralyn Zehnder	caralyn.zehnder@gcsu.edu	9-Faculty	Education
Doreen Sams	doreen.sams@gcsu.edu	9-Faculty	Funding
Julia Metzker	julia.metzker@gcsu.edu	9-Faculty	Education
Linda Golson Bradley	linda.bradley@gcsu.edu	9-Faculty	Funding
Maureen Horgan	maureen.horgan@gcsu.edu	9-Faculty	Education; Energy
Renee Fontenot	renee.fontenot@gcsu.edu	9-Faculty	Education

¹ GC Sustainability Council mission statement.

State of Sustainability at Georgia College

One of the benefits of working in academe is that we are surrounded by a profusion of intelligent, active people with excellent ideas on how to improve our human condition. The growth of sustainability at Georgia College has been truly remarkable. Our institution has rapidly embraced the principles of sustainability and made enormous progress, yet we are well aware of the need for constant improvement.

At this point, Georgia College has neither adopted or engaged in a comprehensive sustainability ratings available to universities. One such rating system is the Sustainability Tracking Assessment & Rating System (STARS) developed by the Association for the Advancement of Sustainability in Higher Education². The criteria for assessment in this system address education and research; operations; and planning, administration, and engagement. Similar to the Leadership in Energy and Environmental Design (LEED) certification process developed by the U. S. Green Building Council³, the system allows institutions to accumulate credits for specific accomplishments toward developing sustainable principles, and a rating can be gained by achieving a minimum number of points (Bronze, Silver, Gold, Platinum). Four schools in Georgia are currently reporting to STARS (Georgia Tech, University of Georgia, Emory, and Agnes Scott).

Another rating system, labeled The College Sustainability Report Card, has been developed by the Sustainable Endowments Institute⁴. For the last several years, this rating system has issued letter grades (A-D,F) to over 300 institutions throughout the U. S. and Canada. Twenty-seven schools have achieved a grade of A- or better, but none of those schools include the seven schools from Georgia participating (Agnes Scott- C+, Berry- B, Emory- B, University of Georgia- C, Georgia Tech- B, Mercer- C, Spelman- D). The overall grade is calculated as a weighted average of nine categories: administration, climate change and energy, food and recycling, green building, student involvement, transportation, endowment transparency, investment priorities, and shareholder engagement.

The Princeton Review, a service designed to help students select colleges, has included sustainability questions on its annual survey for the past three years. Developed in conjunction with ecoAmerica⁵, colleges are ranked according to three criteria: " 1) whether students have a campus quality of life that is both healthy and sustainable; 2) how well a school is preparing students not only for employment in the clean energy economy of the 21st century, but also for citizenship in a world now defined by environmental challenges; and 3) how environmentally responsible a school's policies are."⁶ The responses to the survey allowed the Review to develop a list of Green Colleges⁷, including eighteen institutions on the Green Honor Roll, which

² <https://stars.aashe.org/>

³ <http://www.usgbc.org/LEED>

⁴ <http://www.greenreportcard.org/>

⁵ <http://ecoamerica.org/>

⁶ <http://www.princetonreview.com/college/college-ratings.aspx>

⁷ <http://www.princetonreview.com/green.aspx>

include Georgia Tech and the University of Georgia. Georgia College responded to the survey questions for this section of their review, and was issued a score of 71 out of 100 for 2010.

Additional ranking and reporting systems have been developed by the National Wildlife Federation⁸ and the Sierra Club⁹ among others. At this point, Georgia College has not been ranked by either of these organizations. We have participated for the last two years in Recyclemania¹⁰, a nation-wide competition sponsored by Coca-Cola for the promotion of campus recycling initiatives.

This is the first year of the Sustainability Council at Georgia College, and our efforts to this point have not been focused on achieving a national ranking. As we approach the end of the 2009-2010 school year, we have identified several accomplishments that highlight our activities and set the stage for future improvements in the state of sustainability at our institution. Following are some of the more important achievements in support of our mission:

- Organization of Sustainability Council, including operating procedures and working group structure
- Creation of a Sustainability Teaching Circle
- Passage and approval of a Student Green Fee
- Formation of a Kill-A-Watt Brigade to deliver and promote energy efficient appliances and education
- Request for proposals for a Comprehensive Solid Waste Management contract, including campus-wide Recycling Facilities
- Design of a LEED-certified Wellness Center
- Completion of a Parking Realignment Plan which encourages walking, biking, and car-pooling, along with improved campus shuttle operation
- Construction of Multi-use Walking and Biking Path at West Campus
- Implementation of Water Conservation strategies beyond those required by statewide drought management guidelines
- Institution of a Shades of Green conference to promote student awareness of jobs in sustainable industries
- Successful competition for a \$2 million U. S. Energy Department Stimulus Grant to refit lighting at Centennial Center and provide electrical power monitors for campus
- Acquisition of equipment and training required to allow Analysis of Campus Energy and Water Usage

The following sections of this report present the activities of the Georgia College Sustainability Council for 2009-2010 school year, including the various working groups, and the recommendations of the Council for the 2010-2011 year.

⁸ <http://www.nwf.org/Global-Warming/Campus-Solutions/Resources/Reports/Campus-Report-Card.aspx>

⁹ <http://www.sierraclub.org/sierra/201009/cool.schools/default.aspx>

¹⁰ <http://recyclemaniacs.org/index.htm>

Georgia College Sustainability Council

Council Mission

Georgia College is committed to the stewardship of its resources, including the campus physical environment. With greater awareness of the environmental challenges that affect us locally and globally, Georgia College has renewed its commitment to taking stock of its own environmental impact and exploring ways in which the university community can enhance the environmental sustainability of our campus.

Council Charge

The Campus Sustainability Council at Georgia College is responsible for helping to identify and promote actions and initiatives that will enhance sustainability on campus. Sustainability includes energy/resource management conservation and stewardship as affected by system, campus culture, transportation, the built environment, individual actions/behaviors, etc., for the long-term benefit of the environment. The Council provides periodic assessments of campus sustainability initiatives or practices, recommends actions that will move Georgia College towards greater environmental sustainability, and promotes awareness of sustainability issues on campus. If revenue from student or other fees indexed to campus sustainability should become available, the Campus Sustainability Council will make recommendations regarding the use of such funds. On an annual basis, the Council will prepare a Campus Sustainability Report to be presented to the university community as part of its Earth Day activities

Council Structure

The Sustainability Council reports to the University President through the Vice President for Business and Finance, who also serves as an ex-officio, non-voting member of the Council. The Office of the Vice President for Business and Finance will provide administrative support to the Council, including maintaining an informative website and recording and posting meeting minutes.

Members of the Campus Sustainability Council are Appointed by the University President and include the following representation:

1. Two representatives from Physical Plant including grounds (nominated by the Vice President for Business & Finance)
2. One representative from Auxiliary Services (nominated by the Vice President for Business & Finance)
3. One representative from University Housing (nominated by the Vice President for Student Affairs)
4. One representative from Staff Council (or designee) (nominated by Staff Council chair)
5. One representative from the University Senate's Resources, Planning & Institutional Policy Committee (nominated by RPIPC chair)
6. One representative from the Residence Student Association (nominated by the RSA president)

7. One representative from the Environmental Science Club (nominated by club members)
8. Two representatives from the student body at large (nominated by SGA president)
9. Four representatives from the faculty at large (nominated by faculty)

All appointments will be made following a call for nominations that includes information regarding the work of the Council and desired qualifications of Council members (for instance, commitment of campus sustainability and, as warranted appropriate expertise). Members of the Campus Sustainability Council will elect their own chair and can form subgroups as needed to carry out the charge of the Council.

2009-10 Work Group Members

Council members in CAPS

Name (Captains in BOLD)	Affiliation	WorkGroup
PETE SHIELDS	Sustainability Council	-
John Webb	Physical Plant	Building
MARK CRADDOCK	Sustainability Council	Building
Megan Rabil	Student	Building
Rick Ruark	Physical Plant	Building
SUSAN DANIELS	Sustainability Council	Building
Victor Pulizzi	Student	Building
Allison Hughes	Student	Education
Camile May	Student	Education
CARALYN ZEHNDER	Sustainability Council	Education
Chelsea Losh	Student	Education
JULIA METZKER	Sustainability Council	Education
Kathy Edmonson	Student Programs	Education
Kim Cossey	CoAS	Education
MAUREEN HORGAN	Sustainability Council	Education
RENEE FONTENOT	Sustainability Council	Education
Amit Poddar	COB	Energy
Cara Powell	Student	Energy
Hauke Busch	CoAS	Energy
KEVIN MURNER	Sustainability Council	Energy
MAUREEN HORGAN	Sustainability Council	Energy
Megan Rabil	Student	Energy
DOREEN SAMS	Sustainability Council	Funding
LINDA GOLSON BRADLEY	Sustainability Council	Funding
Paul Jahr	Student Affairs	Funding
Sara Stephens	Institutional Effectiveness	Funding
Carrie Cook	CoAS	Materials
Catlin Ames	Student	Materials
Charles Frame	Housing	Materials

Claudia Wagner	Student	Materials
DOUG OETTER	Sustainability Council	Materials
Fiona Sheehan	Student	Materials
Garrett Balkcom	Student	Materials
Hannah Sadowski	Student	Materials
Hannah Williams	Student	Materials
Kacey Fox	Sustainability Council	Materials
Kayla McCollum	Student	Materials
Kendall Brennan	Student	Materials
LAUREN BUCHHEIT	Sustainability Council	Materials
Laurie Elder	CoAS	Materials
Lori Strawder	Physical Plant	Materials
Pontus Ferno	Student	Materials
Robert Aycock	SGA	Materials
SAM OVETT	Sustainability Council	Materials
Shelby Cloud	Student	Materials
Donnie Beasley	Physical Plant	Transportation
GREG BROWN	Sustainability Council	Transportation
Jeff Brittain	Student	Transportation
KELLEY SMITH	Sustainability Council	Transportation
Megan Rabil	Student	Transportation
Tony Morris	Student	Transportation
Hance Patrick	Information Technology	Water
JOHN BOWEN	Sustainability Council	Water
Wesley Gass	Student	Water

Working Group Reports

Design Working Group

Mission

To identify and implement sustainable practices for building and landscape design on GC campuses.

Goals

1. Explore the use of storm water to irrigate landscaping in four areas of campus. This would be done with storm water collection tanks and a special system designed for this purpose. The four sites are: behind Kilpatrick Hall, front campus, the Irwin Street parking lot, and West Campus.
2. Create a centralized control for all campus irrigation.
3. Explore the use of Geoblock grass parking lots on campus.
4. Have new construction meet or exceed the Georgia Sustainable Energy Management Plan and meet LEED certification standards.
5. Have renovations meet or exceed the Georgia Sustainable Energy Management Plan.
6. Create specific building standards for GC
7. Have at least two employees from Facilities Services become LEED Accredited Professional

Education Working Group

Mission

To encourage the attitude, choices and habits that support sustainability at the institutional and personal level in the GC community. To connect civic responsibility to learning experiences both inside and outside the classroom through community service, education and outreach.

Goals

1. Make visible signs of the Green Initiative on campus by creating new programs and educational materials and by promoting programs already in place
2. Encourage the creation and implementation of curricular components that promote sustainability and/or civic responsibility by supporting faculty who choose to add these to their courses.
3. Encourage habits that promote sustainability and provide students, staff and faculty with information that allows them to make informed, responsible decisions concerning sustainable living.
4. Encourage incentives and present awards that promote and reward sustainability

Progress Toward Goals

The initial year of the Education Working Group consisted mostly of determining what initiatives and projects were already in place and what projects could be undertaken in the future.

1. **Website (green.gcsu.edu).** A website has been established as the contact point for sustainability news and initiatives on campus. The website provides information to the GC community about the activities and accomplishments of the Sustainability Council working groups. The council plans to establish a blog in Fall Semester, 2010. This blog will support dissemination of information from the working groups to the Sustainability Council and the GC community.
2. **Sustainability Teaching Circle.** Supported by money provided by the provost, a group of faculty met during the spring 2010 semester and formed a sustainability teaching circle. The purpose of this teaching circle was to bring together faculty from various disciplines to discuss methods and perspectives on teaching about the issue of sustainability. The goals of the teaching circle 1) were to define and explain what sustainability means to us at GC and to explore how various fields use the word and concept in different ways, 2) bring together ideas and examples of what people at GC and at other campuses are doing to incorporate the issue of sustainability into their classrooms, 3) develop teaching modules that could be used by any faculty who wanted to include sustainability in their curriculum and 4) finally share these modules with the campus community.
 - a. The main product of this teaching circle has been the development of modules focused on sustainability. Currently, we have five sustainability teaching modules that range from single activities that could be done in

one class period to activities that students would focus on over multiple class periods. Additionally, we have also started to develop a directory of faculty and classes that teach about sustainability.

3. **Sustainability Suggestions.** Multiple lists of green tips tailored to the different populations were produced and presented for incoming freshmen during Week of Welcome, incoming faculty at the New Faculty Orientation, and for all students at Fall Fest (at the Environmental Club table). A list of tips and facts was submitted to Harry Batson, Director of University Communications, to be posted on the info page as a rotating series of sustainability suggestions.

- a. The Education Working group met with Harry Batson, Pete Shields and Doug Oetter to coordinate a PR effort to promote sustainable habits.

4. **Green Fee Request.** Members of this group were instrumental in revising the Green Fee application at the request of President Leland. The request, submitted to the Board of Regents in early January, requests to initiate a student fee to fund collaborative research projects between students, staff and faculty with the aim of making the campus more sustainable. As a means of supporting sustainability, these funds would provide for research funding, supporting our mission to create a positive teaching and learning environment, both inside and outside the classroom, that sustains instructional excellence, serves a diverse student body, and promotes high levels of student achievement. Furthering the GC tradition of Connecting What Matters, the Green Fee would draw students, faculty, and staff into the process of "greening" our campus by allowing them to submit proposals in the area of sustainability to which they are most committed. This fee will allow students, staff and faculty to use the physical campus as a laboratory for developing effective ways to improve the environmental sustainability of our campus. We are still awaiting a decision from the board of regents but are hopeful the fee will be approved.

5. Educational Project Ideas

- a. Idea #1: provide 1-2 ecohangers in each closet, hanger would provide green tips for students and be used year-round as a reminder
(<http://www.ecohangersexpress.com/default.asp>)
 - b. Idea #2: install new light switch cover plates with "turn off the lights" reminders
 - c. Idea #3: place "shower timers" in each bathroom to make students more aware of the length of their shower and how much water they're using
(http://www.vitaminshoppe.com/store/en/browse/sku_detail.jsp?id=1E-1017&sourceType=cs&source=FG&cm_mmc=Shopping%20Engines-_-googleproduct-_-Shower%20Timer-Grey%20-%201%20-%20Bath%20Products-1E-1017&ci_src=14110944&ci_sku=1E-1017)
 - d. Idea #4: placing static cling reminders on each bathroom mirror reminding students not to brush their teeth with the water running
 - e. Idea #5: create a goal of being listed on GreenReportcard.org
 - f. Idea #6: placing static clings on windows in halls reminding students that an open window wastes energy
 - g. Idea #7: organizing the grass roots recycling efforts

Energy & Water Working Group

Mission

The GC Sustainability Council Energy & Water Working Group strives to lower GC's carbon footprint through the reduction of energy consumption, to move GC toward greater environmental sustainability in the area of water conservation, and to create an atmosphere at GC where conservation of energy and water is expected and rewarded.

Goals

- Energy
 - To meet the Governor's Energy Challenge, which is to reduce energy consumption per square foot by 15% below the 2007 level, and to do so by 2020.
 - To meter all buildings separately so that employees who work in that building can be encouraged and rewarded to save energy.
 - To continue to improve facilities building automation systems to allow for more flexibility with HVAC controls and temperature range, and to establish protocols which will provide the greatest flexibility and reduce energy consumption.
 - To work with the Transportation and Water Subcommittees with the aim of conserving energy and resources at the institutional level.
- Water
 - To improve methods employed to measure campus water use and provide periodic water use reports.
 - To record and track water conservation related projects.
 - To review best practices in water conservation and cost efficiency.
 - To generate greater awareness of local and global water conservation issues.
 - To recommend actions that reduce water use and promote cost efficiency.

Accomplishments

- GC Plant Operations received funding to improve campus water metering. GC will be able to reduce the cost of water and improve the tracking of water use once meters are properly located, designated, and labeled.
- Sponsored by the GC Sustainability Council and Georgia Power, the GC Kill-A-Watt Brigade (a volunteer group of students, staff, and faculty committed to reducing energy waste at GC) led an Earth Day project to implement positive change for energy efficiency. The Brigade offered free compact fluorescent light bulbs to members of the campus community who pledged to exchange an incandescent bulb for the free energy efficient one.
- The GC Sustainability Council began the coordination of a campus energy use audit to take place Fall 2010. GC students, faculty, and staff will work together to measure the flow of energy within buildings on campus in an effort to cut utility costs and conserve power. Faculty are able to structure this experience as an Independent Study, Practicum, or Directed Project for participating students.

Began a dialogue with Information Technology to determine how we can conserve energy through an automated shutdown process for computers on campus that are not in use.

Benchmarks for a Greener GC

At present, there are four main areas of energy and resource consumption on campus

- Electricity *lighting, all electronic machines and devices*
- Gas *heat and AC usage*
- Steam *heat and AC usage*
- Water *toilets, sinks, showers, irrigation*

There are four main “zones” in which the consumption is monitored:

- Academic & Administration. *Main Campus (all buildings that are used for teaching, student services, and administrative buildings plus the Library and Russell Auditorium), Bell, Centennial Center, Centennial Blocks A&B, and the Chilled Water Plant.*
- Auxiliary Services. *MSU, Sandella's, Bookstore, Campus Theatre.*
- Residential. *Dorms at Centennial, West Campus.*
- Athletics. *Athletic fields and facilities outside of the Centennial Center.*

In the works:

- GC Plant Operations has request stimulus funding to install meters on individual buildings on campus to more closely monitor energy and water consumption.
- Plant Operations also has plans to retrofit lighting at the Centennial Center, which would make the biggest difference in energy consumption there.

Target areas for action

The Campus Sustainability Council should focus on the areas where the actions of individual faculty, staff and students would make the most difference in consumption and cost.

Residential

Electricity July 2008 – May 2009

Cost:

Usage

Water July 2008 – May 2009

Cost:

Usage:

Academic & Administration

Electricity July 2008 – May 2009

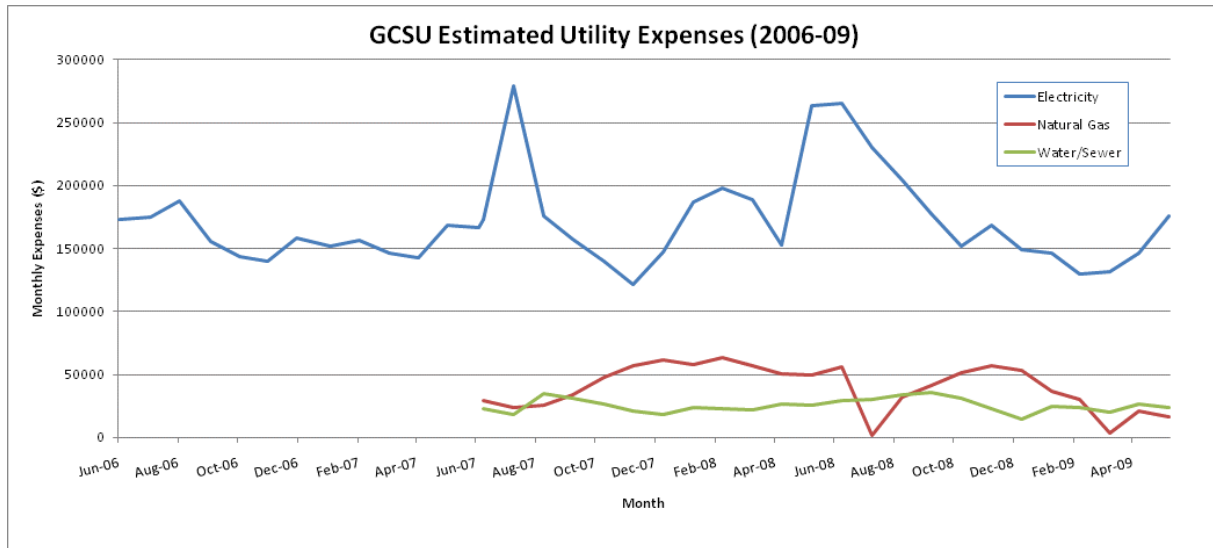
Cost: \$2,183,000.00

Usage 29,501,150 KWH

Water July 2008 – May 2009

Cost: \$270,459

Usage: 47,147,000 gallons



Project Descriptions

Porter Hall Refurbishments

Year-end Funds: This project will be to replace all carpet in entire building, patch & Paint, replace lighting, build cabinets and various electrical upgrades in rooms 227,228,229,230,231,& 234. MRR - FY2010

Remediate Air Quality, Phase II of IV. This project is based on a combination of an air quality report and building HVAC study performed by Connor Engineering. The project is a phased project set to address fresh air intake in an effort to eliminate the mold problem within the facility.

Parks Hall 2nd floor Restrooms

Replace floor, plumbing fixtures and toilet partitions, and repaint walls

Arts & Sciences Building

MRR - FY2010 Replace Windows,

Parks Nursing/Health Sciences

Major Capital project to renovate the Parks Nursing and Health Sciences Facilities for the School of Health Sciences. Renovated classrooms and offices along with state of the art Nursing Skills Labs.

Campus Theatre

GHEFA Project. This project will renovate the old Campus Theatre building to accommodate the Bookstore functions as well as the Black Box theatre. Additional offices, classrooms, changing areas and labs will be created on the 2nd floor.

Instructional Technology HVAC

(MRR) This project included the installation of a new Liebert HVAC unit in the Main Data room. The addition of servers and other equipment in the room made it impossible to keep the room at optimal temperature for the operation of the equipment causing it to overheat.

Parkhurst/Foundation Chiller Replacement

Foundation chiller failed. Temporary chiller installed. Feasibility study and design to replace both chillers.

Health Sciences Heat Exchanger

The heat exchanger is required to convert the steam to hot water for the heating system in Health Sciences.

Steam Plant Boiler Replacement

This project is replacing the three gas/oil fired boilers in the main steam distribution plant with 2 dual fuel boilers with dual output of both steam and hot water. This will allow us to take advantage of the lowest cost fuel during peak periods to produce heat.

Kilpatrick Air Handler Replacement

FY09MRR. Replace the 7 air handlers in Kilpatrick Hall.

MSU Dishroom Renovation

Complete renovation of the dish room including floor, paint, ceiling tile, light fixtures, dish machine, disposal, HVAC.

Lanier Testing Center Light Replacement

Blue Form- Replace lights in Lanier 114 with non glaring parabolic lens lay in fixtures.

Max Noah Stage Lighting

This is to replace the old out of date stage lighting

Centennial Center

MRR - FY2010 Replace Chiller, Multipurpose Facility. This project will replace both chillers at Centennial Center and hopefully the controls also.

Chappell Hall

MRR - FY2010 Refurbish Mechanical System. This project will replace the mechanical system in Chappell Hall - to include Air handlers, boiler, circulation pumps, controls, etc.

Recommendations

- Establish an information sharing agreement between Plant Operations and the Sustainability Council so that the Council has access to energy and water use information.
- Complete a campus energy and water use audit.
- Develop concrete energy and water use reduction goals.
- Secure a grant related to energy and water conservation.
- Host an energy and water conservation awareness event/project each semester.

Funding Work Group

Mission

To obtain funding from outside sources to facilitate and support the economic and environmental sustainability of our institution.

Goals

- Identify potential sources for funding to support economic and environmental campus initiatives.
- Share grant opportunities with the Sustainability Council and working groups.
- Obtain a clear picture from all Green Initiative/Sustainability Council working groups of projected key initiatives over the next 3-5 years that would benefit from Grant Funding.
- Develop lists of key initiatives with types of projects of interest to working groups.
- Develop systematic plans for identifying, planning, writing, and submitting proposals that build on the specific interests, needs, and priorities of working groups. Work closely with the Office of Grants and Sponsored Projects and working group members to implement and facilitate funded projects.
- Seek funding project requests from other working groups in order to determine specific projects, priorities, and timelines
- Provide updates on the progress of sustainability grant initiatives.

The initial year of the Funding Working Group consisted primarily of determining the role that such a group might play in supporting the key initiatives and goals of GC's Sustainability Council and specific projects initiated by other working groups. The goals listed above were some of the preliminary ideas brought forward.

Accomplishments

1. Began to develop procedures that might guide other work groups in their work to pursue public and/or private grants to further their ongoing work.
2. Explored and started a list of a range of funding opportunities from public and private sources
3. Worked on a checklist to support work groups in their pursuit of external funding that would carefully connect the work with our Office of Sponsored Projects (for public project) or GC's Office of University Advancement.
4. Worked to develop a list of ongoing sustainability projects at GC that have current funding.

Recommendations

Due to the nature of the work required by principal investigators of grant funded initiatives, we believe that the nature of the funding working group might potentially change for the upcoming academic year. While a separate committee can assist in identifying potential funding sources and preparing grant proposals to a certain extent, this group cannot serve as principal

investigators. That role must be reserved for those who will be managing the grant and ongoing progress reports. Thus, we feel that streamlining the goals of the larger sustainability council to focus on and complete ongoing projects in an exceptional manner may be more beneficial to the long term goals of GC and the council's readiness to continue to seek and manage new grant projects. In addition, it is likely that if GC's Student Green Fee receives approval through the Board of Regents, a working group to focus on allocation of such funds to student and faculty projects may be more essential than a group seeking a range of new external funding sources for the immediate future. Therefore, the funding working group may continue to refine its goals to best meet the needs of the Sustainability Council through addressing issues related to both seeking and allocating funds for ongoing initiatives.

Materials Work Group

Mission

To facilitate an efficient materials management program making GC a more environmentally sustainable campus.

Goals

1. Identify current waste reduction efforts
 - a. Inventory recycling on campus
2. Audit campus waste stream
 - a. Suggest as part of the Environmental Science Club activities as part of Recyclemania 2010
3. Implement composting program
 - a. Inventory existing activities
 - b. Evaluate the potential of acquiring a tub composter
 - c. Create a composting educational display
4. Implement institutionalized recycling program
 - a. Include waste reduction
 - b. Engage students (SIFE, Tri-Beta, Env Sci Club, service learning)
 - c. Solve downstream problem
5. Educate campus on waste management
 - a. A management plan must be cost-effective
 - b. Create educational display- waste before and after recycling
 - c. Appeal to ethics

Accomplishments

Inventory of Recycling on GC Campus

- Drink Cans & Bottles
 - Herty Hall- 6 collection boxes emptied by Tri-Beta
 - Depot- 1 collection box emptied by Dave Terrell
 - MSU- collection boxes emptied by someone
 - Others??
- Housing
 - Napier- recycling on every floor (plastic, cans, cardboard)
 - Adams- trying to develop
 - West 600- program in place
 - Others??
- Paper

- Env Sci Club- 24 collection bins across campus
- Beeson- NY Times unread papers
- Printer Cartridges
 - GIVE Center
- Composting
 - Ground Crew
- Batteries

Estimate of Waste Production

Site	Tons per year	
	2008	2009
Cafeteria	305	304
Centennial	302	331
The Village	300	300
GCSU Housing Move in/out	50	30
Front Loader Dumpsters	75	75
	1031	1039 tons/yr
	2062760	2078060 lbs/yr
Typical Week in March	22311	22936 kg/week

Audit campus waste stream

As part of Recyclemania 2010 <
http://recyclemaniacs.org/university_detail08.asp?ID=776> the Environmental Science Club tracked campus-wide recycling efforts and generated the following results for a 10-week period from mid-January to late March:

Targeted Materials Competitions									
Results shown are in Metric Kilograms . To view measurements in US Pounds, view the overall rankings on the Results page .									
Week	Paper		Corrugated Cardboard		Bottles and Cans		Food Service Organics		
	kgs/ person		kgs/ person		kgs/ person		kgs/ person		
	2010	2009	2010	2009	2010	2009	2010	2009	
1	0.01		0.00		0.00		0.00		
2	0.00		0.00		0.01		0.00		
3	0.03		0.00		0.02		0.00		
4	0.02		0.00		0.00		0.00		
5	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	
6	0.07	0.06	0.00	0.01	0.00	0.01	0.00	0.00	
7	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	
8	0.00		0.00		0.00		0.00		
9	0.03		0.00		0.00		0.00		
10	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

For more information on how these figures were calculated, please refer to the [Recyclemania 2010 Rules](#).

Recommendations

The Materials Work Group of the GC Sustainability Council has studied the current waste management and recycling situation at GC and proposes the following steps to promote recycling:

1. Identify current waste reduction efforts

- a. This effort should be followed up by a comprehensive campus solid waste audit during the 2010-11 academic year.

2. Implement institutionalized recycling program

- a. Include waste reduction
 - i. The Materials Work Group will continue to study efforts to reduce consumption at the institutional level
- b. Solve downstream problem
 - i. GC is working to secure a contract for waste hauling and recycling. As part of this contract GC will construct two separate recycling centers that will collect paper, cardboard, newspaper, plastic #1 & #2, aluminum, sorted glass, and steel. These materials will be sold to the waste hauler.
- c. To make the recycling effort work, a critical current issue is locating collection bins across campus. There will need to be a variety of bins and locations.

- i. Outdoor mixed drink container bins

1. There are currently almost 200 outdoor waste receptacles on the grounds of GC. Most of these bins are used for casual waste, including paper, drink containers, and compost.
2. Outdoor recycling bins are expensive, due to the need for strong construction and rain protection.
 - a. Dual collection systems such as pictured above accept waste and co-mingled recyclable products (cans, bottles, paper).
 - b. This system costs \$1000.
3. GC should invest in **five bins** such as this and position them very conspicuously in high-traffic areas. The flat space advertises the recycling effort and encourages users to find other more convenient locations. (Cost **\$5000**)
4. The Materials Work Group is studying locations to position these high-traffic outdoor bins.
5. Collection from these bins would be performed by custodial services for the waste (as with trash bins) and by student volunteers for the recycling.



- ii. Special event drink container bins

1. Several large events, including sports games and concerts, promote beverage consumption. Special use cardboard recycling bins with plastic liners could be used liberally to accept co-mingled drink bottles and cans.
2. The Coca-Cola company offers grants for purchasing special events recycling bins < <http://www.bingrant.org/home.htm>>. In addition, the company has donated 10 cardboard collection bins, and promises to donate more.



3. These bins should be made available for special events. They will need to be kept clean and dry, using plastic liners.
4. GC should contact the Macon Coca-Cola bottling company and ask for as many as **50 bins** for no cost. (Cost **\$0**)
5. Collection from these bins at special events would be entirely done by volunteers

iii. Indoor sorted bins for paper and drink containers

1. Indoor locations can be targeted more aggressively for sorted paper and beverage containers, taking advantage of the willingness of faculty, staff, and students to sort their materials at a recycling station.
2. The typical Rubbermaid recycling center allows for four different materials to be collected (e.g., white office paper, mixed paper, beverage containers, waste). Inside the two large containers are four 23-gallon rectangular storage units, which could be lined with plastic bags.
 - a. This facility costs about \$500
3. GC should invest in **ten** recycling stations to be distributed inside classroom and office buildings. (Cost **\$5,000**)
4. Faculty, staff, and students could contribute materials, and either volunteers or work-study students could be responsible for moving the materials to outside roll-off containers.



iv. Building roll-off collection bins

1. Outside GC buildings there is usually a waste receptacle (green roll-off) that temporarily stores refuse until the collection service comes to move it to the compactors or open-top dumpsters. Additional blue recycling roll-off containers should be located adjacent to these bins. There are over 100 waste roll-offs currently on campus; these will be replaced under the new waste management contract.
2. These containers would be primarily for the transfer of paper and beverage bottles from within the adjacent building to the waste transfer locations.
 - a. This bin costs about \$100.
3. GC should purchase **50** of the 68-gallon blue roll-off containers to accept recyclable materials from within buildings. (Cost **\$5000**)



v. Transportation system

1. The success of the proposed recycling program relies on volunteer efforts to transport paper, containers, and other recyclable materials from their sources (classrooms, offices, residence halls) to one of the

two transfer stations, where the materials can be sorted and packaged for delivery to the waste hauling company.

2. Because there are limitations on the amount of involvement existing facilities crews and custodians will be able to contribute, the student staff and volunteers will need reliable transportation for the 68-gallon roll-off containers. Students are not allowed by GC to drive pickup trucks, so the best available option is a golf cart.
 3. GC should purchase **one** Club Car XRT 1550 diesel 4-wheel drive golf cart with a towing package < http://www.utvguide.net/club_car_xrt1550_le.htm> and a trailer to allow student staff and volunteers to collect up to eight roll-off containers in a single trip. (Cost **\$15,000**)
- d. Engage students in service learning and work-study
 - i. The recycling program will depend on volunteer and paid students
 1. Service Learning could be used to encourage volunteer participation
 - a. SIFE, Tri-Beta, Env Sci Club
 2. Work Study
 - e. Dedicate a director
 - i. The recycling program needs to hire a dedicated director who will oversee all operations and ensure the success of the program
- 3. Implement composting program**
- a. Inventory existing activities
 - b. Evaluate the potential of acquiring a tub composter
 - c. Create a composting educational display
- 4. Educate campus on waste management**
- a. A management plan must be cost-effective
 - b. Create educational display- waste before and after recycling
- 5. Appeal to ethics**
- a. The campus feeling should be one of recycling because it is the 'right thing to do' in order to take advantage of the willing potential recyclers first. Down the road, we can institute more comprehensive methods to encourage those who do not support recycling to comply with waste minimization efforts.

Transportation Working Group

Mission

To provide and facilitate alternative sustainable transportation opportunities for GC students, faculty, and staff.

Goals

- Facilitate the bike path construction project
- Explore opportunities regarding alternative fuels for campus shuttles
- Develop and implement programs which reduce GC required travel
- Investigate new parking options

Accomplishments

The initial year of the Transportation Working Group consisted mostly of determining what initiatives and projects could be undertaken. The goals listed above were some of the preliminary ideas brought forward.

1. Bike path construction is a long-term project with coordination among several local, state, and federal agencies. Some money was received to enhance the current bike trails along the Greenway and around the lake at Baldwin High School. Federal funds were allocated for the initial development of the bike paths associated with the Rails-to-Trails program, the starting point will be in the Macon district.
2. Exploring alternative fuels was limited to discussion on the types of fuels which may be incorporated. Compressed Natural Gas (CNG) and Bio-diesel alternatives were the only two viable candidates given the current infrastructure in the Milledgeville area. CNG was ruled out as the delivery, storage and dispersal issues were extremely costly. Bio-diesel is not yet commercially available in adequate quantities to satisfy the current demand of the GC Transportation Dept. However the bid specifications and ultimate awarding of the GC bus contract did specify that the new buses would have a bio-diesel compatible engine to take advantage of the product when it does become more readily available.
3. Exploring ways to reduce transportation by the GC community were discussed and it was learned that many of these initiatives were already in place.
 - a. Teleconferencing instead of attending conferences and education programs
 - b. Telecommuting offered by HR and worked within the individual departments
4. Investigating new parking options is an ongoing process. One area considered was to have GC operate a rental car program whereby students could have access to a vehicle but not require them to bring their own vehicles to campus. This initiative has some merits but further study of the viability is needed before putting in the capital investment.
5. One area not listed was the potential construction of a solar powered charging station coupled with the current construction on Herty Hall. The station would potentially develop enough energy to charge 2-3 golf carts. This goal is still under investigation to determine if this site would be effective enough to warrant the additional cost.

Recommendations

The transportation working group will continue to work towards its original goals in the next year.

Operating Procedures

Bylaws and Procedures of the GC Sustainability Council

ARTICLE ONE: NAME AND REPORTING CHAIN

The official name of this group is the GC Sustainability Council. The Council reports directly to the Vice President for Business and Finance

ARTICLE TWO: PURPOSE

The GC Sustainability Council is responsible for identifying and promoting actions and initiatives that will enhance sustainability on campus. Our major program is the Green Initiative, an ongoing effort to incorporate the principles of sustainability and environmental planning into the short and long-term activities of our university, and to share our knowledge with the surrounding community to help make our world more ecologically responsible.

The Council provides periodic assessments of campus sustainability initiatives or practices, recommends actions that will move Georgia College towards greater environmental sustainability, and promotes awareness of sustainability issues on campus. Each Earth Day, the Council delivers a Campus Sustainability Report to the university community.

ARTICLE THREE: MEMBERSHIP, SELECTION, AND RECALL

A. The membership of the CSC consists of:

1. Three(3) faculty representatives from Arts and Sciences:
 - a. One (1) from Humanities/Social Sciences
 - b. One (1) from Biological/Physical Sciences
 - c. One (1) from Fine Arts
2. College of Business faculty representative
3. College of Health Professions faculty representative
4. College of Education faculty representative
5. Faculty Senate faculty representative (may be selected from the above)
6. University Housing representative
7. Two (2) Physical Plant representatives
 - a. One (1) from Operations & Maintenance or Strategic Planning
 - b. One (1) from Grounds or Facilities
8. Transportation representative
9. Staff Council representative (appointed by Staff Council)
10. Three student representatives
 - a. One (1) appointed by SGA
 - b. One (1) appointed by RSA
 - c. One (1) selected by the Environmental Science Club
11. Vice President for Business & Finance or designee (*ex-officio*)

- B. Faculty representatives may be elected by their constituencies or designated by the Dean of the College and approved by the Provost.
- C. Faculty representatives may be reappointed to the Council. There are no term limits for any faculty representative.
- D. Non-faculty representatives on the Council are appointed and terms of office established by their appointing official -- Administration, Staff Council and SGA Senate.
- E. If a vacancy occurs among the faculty representatives, the Dean of the College appoints a new member in accordance with the membership provisions listed above.
- F. Attendance at Sustainability Council meetings is crucial to the success of the council.
 - 1. Any CSC member missing three meetings, without REGRETS, in an academic year may be requested to vacate the position for a more viable representative.
 - 2. This request will be coordinated through the appointing official/constituency (i.e. Faculty Senate, Administration, Staff Council, or Student Government).
 - 3. If a member cannot attend a meeting, he or she is requested to notify the recording secretary or the Chair in advance to be considered excused. A member may send a non-voting substitute in his or her place or may designate a proxy.

ARTICLE FOUR: OFFICERS AND MEETINGS

- A. During the last scheduled meeting of the spring semester, the Council, through the current Chair, will recommend to the Vice President for Business and Finance, a Chair, Vice Chair and Secretary to serve during the following academic year.
 - 1. The VPBF may either accept or reject the recommendation and should inform the incoming officers not later than the end of June.
 - 2. There are no maximum term limits imposed upon any officer position.
 - 3. All officers shall serve a minimum of one full term with the term starting in conjunction with the GC fiscal year of July 1st and ending June 30th.
- B. If the office of the Chair becomes vacant, the Council will recommend a new Chair.
- C. The Sustainability Council meets: (1) in accordance with a calendar governing meetings as established by the Faculty Senate, and/or (2) upon the call of the Chair, who is responsible for informing Sustainability Council members in advance of the meeting's time, place and agenda.
- D. If three members of the Council request a meeting, the Chair will call it within two weeks of the request.

ARTICLE FIVE: MINUTES, QUORUM, AND VOTING

- A. Minutes are kept for each meeting and are prepared in accordance with the format set by the Faculty Senate and are submitted in a timely manner to the Faculty Senate scribe for posting. Minutes will be taken by the secretary or designee.
- B. A quorum consists of at least fifty (50) percent of the voting Council membership.
- C. A motion is passed when it receives a majority of the votes cast.
 - 1. Abstentions do not count as votes.
 - 2. Tie votes fail.
 - 3. The Chair has a right to vote on all motions.

ARTICLE SIX: WORKING GROUPS

- A. Working groups may be established or discontinued with the consent of the Sustainability Council membership and approval from the VPBF.
- B. Facilitators of all working groups will be selected from the voting membership of the Sustainability Council.
- C. The Chair and Vice-Chair all serve as the Executive Committee of the GC Campus Sustainability Council.
- D. Facilitators of the individual working groups are responsible for
 - 1. Coordinating working group sessions as necessary and provide information to working group members on assigned tasks or objectives.
 - 2. Overseeing the implementation of specific sustainability projects as assigned or coordinated by the Sustainability Council.
 - 3. Providing monthly status reports about on-going projects. These reports should be accomplished in such time as to be included within the monthly minutes.
 - 4. Developing potential sustainability initiatives within the respective working group and presenting them to the Sustainability Council for full consideration.
 - 5. Preparing follow-up or follow-on notes and procedures about long-term projects which will not be completed within the term of the current FY so that subsequent facilitators have a foundation of information.

ARTICLE SEVEN: BYLAWS AMENDMENT PROCESS

- A. No amendment may be both introduced and passed at the same meeting.
- B. These Bylaws may be amended by a majority vote of the entire Council membership, both voting and non-voting members..

ARTICLE EIGHT: BUSINESS ITEMS

- A. Items or policy not completed in one fiscal year should be considered old or continuing business to be completed by the Sustainability Council in the next academic year.
- B. New business may be initiated by the Council by any of the following means:
 - 1. Business referred by the Vice President for Business & Finance
 - 2. Items brought in by a facilitator of a working group
 - 3. Items referred by the University community.

Sustainability Council Priorities for 2010-2011

At the Council level, we would like to encourage the Administration, Faculty, Staff, and Students of Georgia College to pursue the following most critical sustainability goals:

- Direct attention across campus toward participation in a sustainability rating/ranking service
- Participation in a national/international commitment to sustainability such as the American College & University President's Climate Commitment¹¹ or the University Leaders for a Sustainable Future Talloires Declaration¹²
- Promote sustainability education through visible incentives and awards to promote civic responsibility and innovation in environmentally-motivated teaching
- Eliminate energy waste by metering all buildings, improving HVAC temperature controls, and encouraging all campus members to conserve electricity
- Conserve water through the additional use of landscape management, including storm water retention systems, Geoblock paving stones, and centralized irrigation control
- Identify and develop funding opportunities to support environmental sustainability of our institution, including a student Green Fee
- Create a workable recycling program to help reduce waste generation
- Provide alternative sustainable transportation opportunities, including shuttles busses, rental cars, bicycle routes, and carpooling
- Continue the Sustainability Council's ongoing role in developing and promoting sustainable options for Georgia College

¹¹ <http://www.presidentsclimatecommitment.org/>

¹² http://www.ulsf.org/talloires_declaration.html