

Georgia College & State University Sustainability Report

April 2011

**Georgia College
Sustainability
Council**

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Executive Summary

The Georgia College & State University (GCSU) 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 Sustainability Council (SC) is made up of dedicated students, staff, and faculty who work together to assess and promote activities related to sustainability issues, but this group is by no means independent of the entire campus; our mission is supported by hundreds of others who engage and promote sustainability in their daily activities. This report attempts to highlight the major accomplishments in sustainability at GCSU for the 2011 fiscal year, and to offer recommendations to the campus community on the steps we can all take to proceed further toward a sustainable future for everyone.

Major Achievements in Sustainability

As we approach the conclusion of the 2011 school year, the Council has identified several accomplishments that highlight campus 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 the SC mission:

- Implementation of the Student Green Fee, a student-directed sustainability funding program
- Promotion of Green Careers with the 2010 Shades of Green conference
- Dozens of Environmental Education events throughout the school year, highlighted by EarthFest 2011, a week-long observance of Earth Day
- Collaboration of the Kill-A-Watt Brigade, Plant Operations, and Georgia Power to exchange 2500 low-wattage light bulbs and promote energy efficiency education
- Creation of a student-directed Energy Audit Team, collecting and analyzing energy usage in buildings
- Implementation of a new Comprehensive Solid Waste Management contract, including a campus-wide Recycling Program
- Construction of a Wellness and Recreation Center within the design specification for the U. S. Green Building Council LEED certification
- Addition of three Glaval Apollo Low-Emission Shuttle Busses to the GCSU fleet
- Membership in the Hertz Connect hourly rental car program
- Funding to provide Energy and Water Usage Meters

¹ GCSU Sustainability Council mission statement.

Sustainability at Georgia College

The growth of sustainability at GCSU in the last five years has been truly remarkable. More faculty are teaching sustainability classes, more students are engaged in sustainability projects, and more staff are conscientious of the need to become a sustainable campus. Recent budget cuts, driven by reduced tax revenues, has actually inspired our campus to focus more on saving resources, including cutting back on electricity and water use, eliminating wasted paper, and recovering some of the material resources that used to go into the garbage can. Our institution has rapidly embraced the principles of sustainability and made enormous progress, yet we are well aware of the need for constant improvement.

Quantifying the sustainability status of GCSU is not an easy task. We have initiatives across many broad platforms that contribute to our sustainability success, but putting all our work into a measurable index is no easy task. Beginning in 2008, GCSU has been reporting data to one or more of the various sustainability ranking systems. Keeping an eye on the evaluation criteria has helped us learn more about ways to improve our sustainability and reduce our collective environmental impact.

For the purposes of ranking our position relative to other colleges, the Sustainability Tracking Assessment & Rating System (STARS) was 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, and Platinum). Three schools in Georgia are currently reporting to STARS (Georgia Tech [Gold], Emory [Gold], and Agnes Scott [Silver]).

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 the 300 institutions throughout the U. S. and Canada with the largest endowments, plus 22 additional schools. Fifty-two schools achieved a 2011 grade of A- or better (almost double the number from 2010), including Georgia Tech and the University of Georgia. The other five schools from Georgia participating were Agnes Scott (B), Berry (B+), Emory (B), Mercer (C+), and Spelman (C). 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.

² <https://stars.aashe.org/>

³ <http://www.usgbc.org/LEED>

⁴ <http://www.greenreportcard.org/>

The Princeton Review, a service designed to help students select colleges, has included sustainability questions on its annual survey for the past four years. The 2011 Review ranked 832 Green Colleges according to ten criteria⁵:

1. The percentage of food expenditures that goes toward local, organic or otherwise environmentally preferable food.
2. Whether the school offers programs including free bus passes, universal access transit passes, bike sharing/renting, car sharing, carpool parking, vanpooling or guaranteed rides home to encourage alternatives to single-passenger automobile use for students.
3. Whether the school has a formal committee with participation from students that is devoted to advancing sustainability on campus.
4. Whether new buildings are required to be certified LEED Silver.
5. The school's overall waste diversion rate.
6. Whether the school has an environmental studies major, minor or concentration.
7. Whether the school has an "environmental literacy" requirement.
8. Whether the school has produced a publicly available greenhouse gas emissions inventory and adopted a climate action plan consistent with 80 percent greenhouse gas reductions by 2050 targets.
9. What percentage of the school's energy consumption, including heating/cooling and electrical, is derived from renewable sources (this definition included "green tags" but not nuclear or large scale hydropower).
10. Whether the school employs a dedicated full-time (or full-time equivalent) sustainability officer.

The responses to the survey allowed the Review to develop a list of Green Colleges⁶, including eighteen institutions on the Green Honor Roll, which 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 Federation⁷ and the Sierra Club⁸ among others. At this point, GCSU has not been ranked by either of these organizations. In 2009 and 2010, GCSU participated in Recyclemania⁹, a nationwide competition sponsored by Coca-Cola for the promotion of campus recycling initiatives.

⁵ <http://www.centerforgreenschools.org/greenguide>

⁶ <http://www.princetonreview.com/green.aspx>

⁷ <http://www.nwf.org/Global-Warming/Campus-Solutions/Resources/Reports/Campus-Report-Card.aspx>

⁸ <http://www.sierraclub.org/sierra/201009/cool.schools/default.aspx>

⁹ <http://recyclemaniacs.org/index.htm>

Georgia College Sustainability Council

The Sustainability 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 work 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.

Council Mission

Georgia College & State University 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, GCSU 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 Sustainability Council at Georgia College & State University 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 Sustainability Council will make recommendations regarding the use of such funds. On an annual basis, the Council will prepare a Sustainability Report to be presented to the university community as part of its Earth Day activities.

The Council has identified specific activities for its normal operations:

- Promote Sustainability Initiatives
- Reduce Georgia College's Carbon Footprint
- Help reduce Energy, Water, and Material usage and expenses
- Educate Campus and the Community on Sustainability
- Inform the Public about what we do
- Gather Information and Disseminate it to the Campus and Community
- Collect Data pertaining to sustainability
- Set specific goals for Campus Administration
- Coordinate with other Campus Initiatives
- Focus on Student Engagement
- Maintain Presence

The Council promotes the “Green Initiative,” a coordinated effort among the Council and all members of the GCSU community to work toward sustainable outcomes, including all efforts to publicize, educate, and achieve sustainability.



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 Sustainability Council will elect their own chair and can form subgroups as needed to carry out the charge of the Council.

GCSU Sustainability Council

2010-11 Council Members

Name	Affiliation
Pete Shields	0-VPBF
Kevin Murner	1-Physical Plant
Susan Daniels	1-Physical Plant
Greg Brown	2-Auxillary Services
Mark Craddock	3-Univ Housing
Stephanie Jones	4-Staff Council
Doug Oetter	5-RPIPC
Anna Lopez-Ratouis	6-Resident Student Assoc
Cara Powell	7-Env Sci Club
Alan Thompson	8-Student Govt Assoc
Emily Hill	8-Student Govt Assoc
Hauke Busch	9-Faculty
Doreen Sams	9-Faculty
Linda Golson Bradley	9-Faculty
Maureen Horgan	9-Faculty
Amit Poddar	9-Faculty

Sustainability Council Priorities for 2010-2011

At the first Sustainability Council meeting of the school year, the Council votes on the sustainability priorities for that year. The Council's priorities are designed to help the SC target resources and efforts to achieve the greatest increase in sustainability in the areas most critical.

The SC priority areas for 2010-2011 are:

- 1. Energy Efficiency**
- 2. Water Conservation**
- 3. Environmental Education**
- 4. Alternative Transportation**

The selection of priorities allows the SC to establish Work Groups, which are small committees dedicated to collecting and processing information, analyzing trends and practices, and reporting results and recommendations to the campus community. A work group is established for each of the priority areas, as well as additional areas with specific interest within the Council.

Sustainability Council Accomplishments for 2010-2011

- Productivity of Associate Director for Energy Management, Utilities, Emergency Preparedness and Occupational Safety Projects Kevin Murner
 - Mr. Murner guided several energy saving projects within Plant Operations, was an active member of the Sustainability Council, and led several outreach and education programs
- Participation in the 1st Annual University System of Georgia Sustainability Conference, Macon, Georgia, 11 June 2010
 - Kevin Murner, Rick Ruark, and Doug Oetter attended the conference to present our work and learn from other state leaders in sustainable education
- The Council placed a full-page advertisement in the University Housing Move-in Book to inform and educate students
- Council members Maureen Horgan and Doug Oetter presented at the New Faculty Orientation and the Week of Welcome Address, to promote the Council to new faculty and students
- The Council continued to develop Public Relations
 - Kristin Soles, a local publicist, was hired by University Communications on a project to design information articles and a graphic presence
 - Mass Communication Practicum Student Courtney McMahon completed assignments in Fall 2010 to create powerful a Graphic Identity and produce Factsheets on Energy, Recycling, and the Green Initiative. She also compiled a News Scrapbook of Colonnade articles related to sustainability
 - A Facebook group “Green Initiative” was created in April 2010, serving as a strong online information source
 - <http://www.facebook.com/groups/286096117325/>
 - A Word Press blog “Georgia College Green Initiative” was started November, 2010 to allow Council members an outlet for sharing news and information
 - <http://gcgreen.wordpress.com/>
- GCSU Athletics sponsored a Green Night at the basketball game on 12 Jan 11, promoting sustainability concepts and introducing recycling to the arena
- The SC continued to include Outreach to outside agencies and organizations
 - Joyce Emery, Segment Manager, Georgia Power attended a meeting and discussed building relationships to promote sustainability
 - Carly Queen, Campus Field Coordinator, National Wildlife Federation visited the Council to report on state-wide green initiatives
- Dr. Doreen Sams conducted a university-wide survey in March, 2011 to measure knowledge of sustainability issues and campus involvement. The survey received 57 responses and provided very useful information for further development

Sustainability Council Recommendations for 2010-2011

The Sustainability Council would like to encourage the Administration, Faculty, Staff, and Students of GCSU to pursue the following most critical sustainability goals:

- Objectives
 - Build a culture of sustainability at Georgia College
 - Include sustainability outcomes in the university's core mission; write sustainability into the core concepts by appealing to lifelong learning, academic engagement, and equity
 - 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 the Student Green Fee
 - Develop the campus recycling program to help reduce waste generation
 - Provide alternative sustainable transportation opportunities, including shuttles busses, rental cars, bicycle routes, and carpooling
 - Obtain the support of University President for sustainability initiatives, including signing onto the American College & University President's Climate Commitment¹⁰ or the University Leaders for a Sustainable Future Talloires Declaration¹¹
 - Participate in the AASHE Sustainability Tracking, Assessment, & Rating System (STARS)
- Development
 - Participate in the Georgia Campus Sustainability Network
 - Send Plant Operations staff to training workshops such as the APPA "Facilities Management Strategies for Campus Sustainability"
 - Join the Association for the Advancement of Sustainability in Higher Education
 - Participate in more national programs, such as the Program for Pollution/Energy Reduction (PP2D)
 - Recruit new members of the Green Initiative, including staff from Purchasing, Grounds, and Auxiliary Services such as the Bookstore and Sodexo
- Outreach
 - Work more closely with Auxiliary Services & Sodexo to promote and provide sustainability initiatives

¹⁰ <http://www.presidentsclimatecommitment.org/>

¹¹ http://www.ulsf.org/talloires_declaration.html

- Become more involved with the G.I.V.E Center
- Work more closely with SGA
- Encourage more staff from Plant Operations to participate in and promote sustainability
- Be involved more in campus planning, including participation in master planning processes
- Build relationships with outside agencies and companies, such as Georgia Power
- Develop relationship with University Advancement
 - Request funding sources consider sustainability initiatives
- Council Operations
 - Focus efforts on the most important projects
 - Maintain a list of informed and motivated students, staff, and faculty
 - Reassess Work Groups; perhaps rename them “Project” Groups?
 - Define specifically how the working groups report to the council, share information, collaborate, and prioritize and pursue goals
 - Define how the council and working groups interact with university units (plant operations, business office, etc.) to gather needed info/resources to turn ideas into reality
 - Working groups should have the amount of autonomy they need; more direction from a centralized structure would be a positive
 - The chair and working group captains should meet once a month to share info so that when the council meets we can present info to the large group that will help us prioritize our ideas/efforts, create measurable goals, and set a timeline for projects
 - Populate each work group with a critical mass of motivated students, staff, and faculty
 - Coordinate conversations between Plant Operations and Sustainability Council
 - Demonstrate the value of retrofitting, upgrades, and green initiatives
 - Reduce the bottle-neck of information sharing; encourage individuals to contribute directly to online media sites
 - Streamline reporting procedure
 - Real-time News online
 - Monthly updates from Work Group for Sustainability Council
 - Template for Annual Report
 - Create a library of sustainability books, DVDs, and resources
 - Draft a list of specific activities and actions to support sustainability at Georgia College
 - Create Work-Study positions for sustainability
 - Develop student capstone opportunities for students
 - Obtain a permanent campus address and phone number for the Sustainability Council
 - Formalize Sustainability Council meetings with established agendas and complete minutes

- Publicity
 - Maintain consistent graphic identity and produce factsheets, handouts, and circulars to promote sustainability and educational opportunities
 - Facebook presence
 - Word Press page
 - Status updates
 - Student emails
 - Bobcat Vision
 - Flyers, factsheets, stickers
 - Brochures
 - Tabling
 - Chalking
 - Work more closely with University Communications to promote sustainability
 - Improve visibility of the Sustainability Council web pages
 - Charge Work Group captains to take the lead on publicizing Council activities and events
 - Create a “I Caught You Greening” recognition



Sustainability Council Work Groups

Sustainability Council Work Groups are small committees of dedicated Council members and student, staff, and faculty volunteers. The work groups meet regularly (usually once a month) to collect and process information, conduct analysis and investigations, and report findings. The work groups report back to the full Council and provide annual summaries of their activities.

Seven areas of sustainability have been created for Work Groups, but not each of these areas will be fitted with an active work group, depending on the priorities of the Council:

- Alternative Transportation
- Building & Landscape Design
- Energy Efficiency
- Environmental Education
- Materials Management & Recycling
- Sustainability Funding
- Water Conservation

Work groups can also be combined to help focus resources and energy on priority issues.

Alternative Transportation Work Group

Mission

Provide and facilitate alternative sustainable transportation opportunities for GCSU students, faculty, and staff.

Goals

- Facilitate the construction of a Bike Path from Central Campus to the West Campus Village
- Explore opportunities regarding Alternative Fuels for campus shuttles
- Develop and implement programs which reduce GCSU required Travel
- Investigate new Parking Options

Alternative Transportation Accomplishments

- GCSU signed up with the Hertz Connect program to provide two hourly rental cars for members of the campus community. The cars are available for check-out at a very low rental rate. A Mazda 3 and a Ford Fusion were delivered to campus, and 35 members have signed up. These cars will allow many students in residence halls the opportunity to come to campus without an automobile.
- GCSU became involved with the Clean Air Campaign to reduce vehicle traffic by commuters to campus. The program allows incentives for carpooling, biking, or walking to school
 - <http://www.cleanaircampaign.org/>
- Three Eco-friendly Buses were purchased and put on-line Jan 10, 2011. These busses have near zero emissions (99.08% NO_x free), and are EPA compliant through 2016.
 - Union-Recorder article from 22 January 2011
 - <http://unionrecorder.com/local/x316473948/University-unveils-green-buses-added-to-fleet>
- Regional Bicycle-Pedestrian Plan Advisory Committee involvement
- Inventory of existing bike racks and bicycle usage for Student Green Fee grant

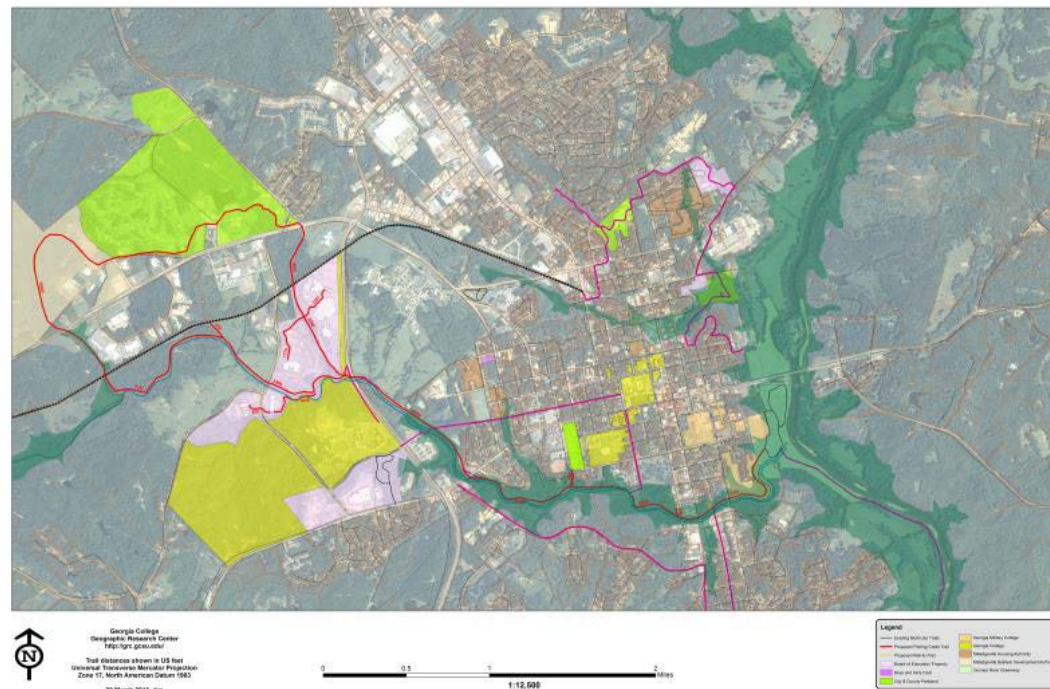


Alternative Transportation Recommendations

1. Promote design and construction of a pedestrian/bicycle path from Central Campus to the West Campus Village. Link the path to the Fishing Creek Community Trail and the Oconee River Greenway on the east, and the Central Georgia Rail-to-Trail on the west. Coordinate with Baldwin County schools to help K-12 students achieve safe routes to their schools
2. Explore alternative fuels, such as Compressed Natural Gas (CNG) and Bio-diesel, for the GCSU vehicle fleet and shuttle busses
3. Reduce transportation costs by the GCSU community by promoting Teleconferencing and Telecommuting
4. Investigate new parking options including rewards and incentives for campus commuters who do not use an automobile
5. Build a solar powered charging station for campus golf carts

Live Healthy Baldwin Multi-Use Path System

North Milledgeville Trail System



Building and Landscape Design Work Group

Mission

Identify and implement sustainable practices for building and landscape design on GCSU campuses.

Goals

- Build or retrofit at least one green building certified by the Green Building Council for Leadership in Energy & Environmental Design (LEED) recognition
- Explore the use of storm water to irrigate landscaping in four areas of campus.
- Reduce the need for irrigation water across campus
- Improve soil moisture and tree health with permeable paving options

Building Design & Landscaping Accomplishments

- Pavers and Eco-pavers installed at the MSU bus stop. Eco-pavers allow storm water to permeate the soil rather than collect and head to the storm drains, yet the pavers provide a solid surface to walk on. Permeable blocks allow a 97% reduction in storm water runoff.
- The Wellness and Recreation Center construction was achieved to the specifications of the U. S. Green Building Council's Leadership in Energy and Environmental Design standards for a Silver award. Following the opening of the building this fall, Plant Operations will apply for an evaluation
- The Student Government Association offices in Magnolia Student Center were redesigned and retrofitted with recessed lighting and occupancy sensors



Building Design & Landscaping Recommendations

1. Install irrigation meters to monitor usage and allow GCSU to save on sewage expenses.
2. Plan renovations of campus facilities using energy-saving and water-saving fixtures
3. Evaluate LEED certification for future building plans

Energy Efficiency Working Group

Mission

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

Goals

- 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.
- Meter all buildings separately so that employees who work in that building can be encouraged and rewarded to save energy.
- 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.
- Work with the Transportation and Water work groups with the aim of conserving energy and resources at the institutional level.

Energy Efficiency Accomplishments

- Sponsored by the GCSU Sustainability Council and Georgia Power, the GCSU Kill-A-Watt Brigade (a volunteer group of students, staff, and faculty committed to reducing energy waste at GCSU) 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.
- Provided Energy Factoids to the Education work group for inclusion on the GCSU INFO page
- Energy Audit Team (Fall 2010 & Spring 2011). Emily Post, Sam Ovet, and Dr. Hauke Busch completed analysis of Health Sciences, Herty, Arts & Sciences, Depot. The audit team collected data on electricity use for each room and hallway in the building, and combined the data with estimates of efficiency to calculate total energy expenditures. The team recommends:



- Turning off computers, lights, vending machines, plasma television monitors
 - Install power strips with on/off switch to help people shut down work stations
 - Purchase of efficiency equipment
- The GCSU Sustainability Council began the coordination of a campus energy use audit to take place Fall 2010. GCSU 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.
- Evaluated and tested external lighting with LEDs
- Initiated purchase of individual building energy meters
- Plant Operations acquired electrical power meters through the American Recovery Reinvestment Act (ARRA). We obtained a Fluke 435 Power Quality Analyzer, which records energy use on major equipment, and two Fluke TiS Thermal Imaging Spectrometer Infrared Cameras. These devices allow us to verify energy use, especially Pre- vs. Post-project, so that we can identify the best energy-saving devices.
- Centennial Center improvements
 - Chiller and HVAC upgrades
 - Temperature & lighting controls
- Chiller plant improvements
- Power strip recommendations
- Energy/water meters



Recent Campus Energy Improvements

1. Arts & Sciences Building
 - a. Replace Windows
2. Campus Theatre
 - a. 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.
3. Centennial Center, Multipurpose Facility
 - a. This project will replace both chillers at Centennial Center and hopefully the controls also.
4. Chappell Hall Refurbish Mechanical System
 - a. This project will replace the mechanical system in Chappell Hall - to include Air handlers, boiler, circulation pumps, controls, etc.
5. Health Sciences Heat Exchanger
 - a. The heat exchanger is required to convert the steam to hot water for the heating system in Health Sciences.
6. IT HVAC
 - a. (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.
7. Kilpatrick Air Handler Replacement
 - a. Replace the 7 air handlers in Kilpatrick Hall
8. Lanier Testing Center Light Replacement
 - a. Replace lights in Lanier 114 with non glaring parabolic lens lay in fixtures.
9. Max Noah Stage Lighting
 - a. This is to replace the old out of date stage lighting
10. MSU Dish Room Renovation
 - a. Complete renovation of the dish room including floor, paint, ceiling tile, light fixtures, dish machine, disposal, HVAC
11. Parks Hall
 - a. Replace floor, plumbing fixtures and toilet partitions, and repaint walls
 - b. Insulated windows
12. Parks Nursing/Health Sciences
 - a. 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.
13. Parkhurst/Foundation Chiller Replacement

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

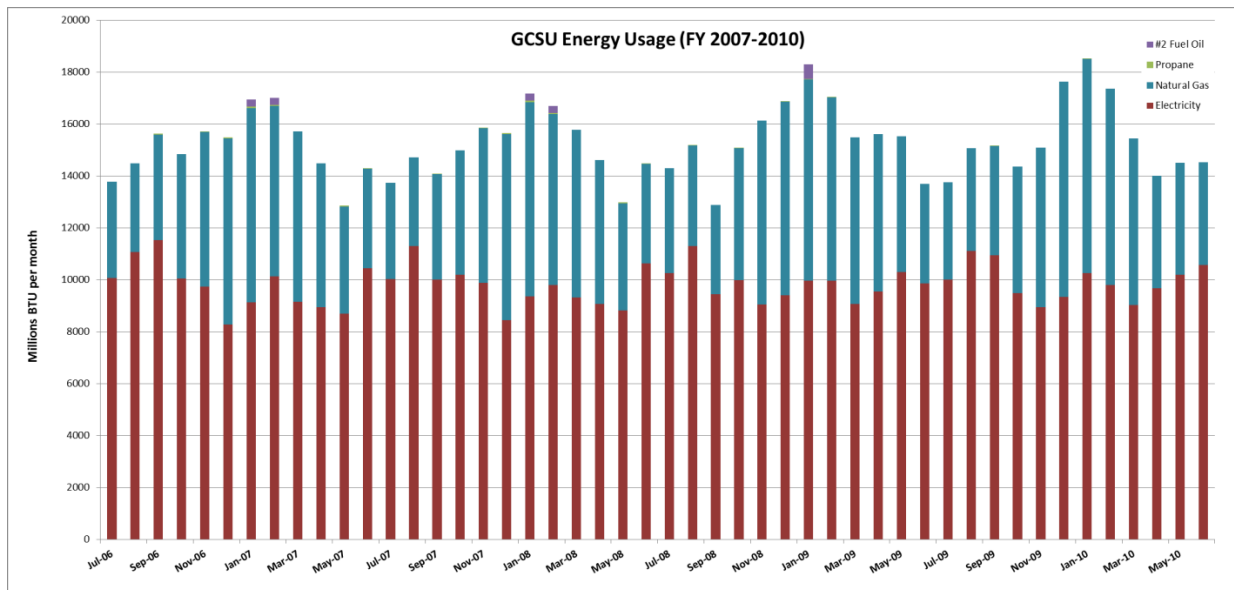
14. Porter Hall Refurbishments

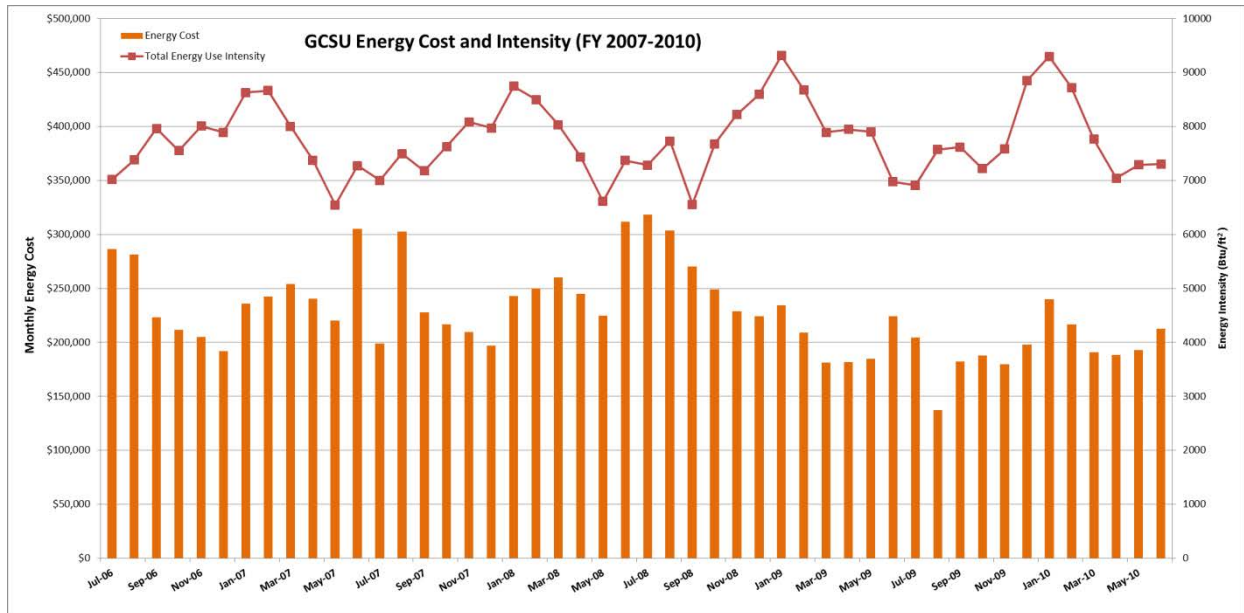
- a. This project will be to replace all carpet in entire building, patch & Paint, replace lighting, build cabinets and various electrical upgrades in rooms 227, 228, 229, 230, 231, & 234
- b. Remediate Air Quality - Phase II of IV. This project is based on a combination of an air quality report and 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

15. Steam Plant Boiler Replacement

- a. 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.

Energy Benchmarks





Energy Efficiency Recommendations

1. 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.
2. Establish an information sharing agreement between Plant Operations and the Sustainability Council so that the Council has access to energy use information.
3. Complete a campus energy use audit.
4. Develop concrete energy use reduction goals.
5. Secure a grant related to energy conservation.
6. Host an energy conservation awareness event/project each semester.

Environmental Education Work Group

Mission

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

Goals

- Make visible signs of the Green Initiative on campus by creating new programs and educational materials and by promoting programs already in place
- 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.
- Encourage habits that promote sustainability and provide students, staff and faculty with information that allows them to make informed, responsible decisions concerning sustainable living.
- Encourage incentives and present awards that promote and reward sustainability

Environmental Education Accomplishments

- Members of the Education work group created a collection of energy- and water-saving suggestions for Faculty and for Students; these are posted on the SC website <http://green.gcsu.edu/>
- INFO page Green Tips. A new tip is shown each time a viewer visits <http://info.gcsu.edu/>
- Shades of Green career conference (September-October, 2010)
 - Developed by Dr. Doreen Sams (Marketing) in cooperation with JaLynn Hudnall, Ravenwood Forest Consulting
 - Involved the active promotion of the Global Business Student Leaders Association (GBSLA)
 - <http://www.gcsu.edu/shadesofgreen/past.htm>
- The Education Work group met with University Communications to coordinate a publicity effort to promote sustainable habits
- Earth Fest is a week-long celebration of Earth Day, including educational lectures, events, movies, speakers, and a music festival
 - Earthfest 2011 Schedule of Events:

- Saturday, 16 April- Earthfest 2011 – Front Campus 11am to 10pm – Come join the club for a day of arts & crafts, educational sessions, art exhibits, eco-friendly games, green living demonstrations, and live music by Flamingo Royal and Elastic Skyline.
- Sunday, 17 April- River Clean-up – The Oconee Greenway from 1pm to 3pm – We will be collecting trash and debris from one of the city's most popular green spaces.
- Monday, April 18th- Movie Night - Magnolia Ballroom at 6pm – Join us for a showing of the PBS Frontline documentary "Heat" discussed by Drs. Hauke Busch and Doug Oetter.
- Shades of Green Art Project Exhibition – Kilpatrick Hall 8am to 5pm – This is an ongoing event through Friday where the public is invited to view local high-school eco-art projects.
- Tuesday, April 19th- Waste Audit - Front Campus from 11am to 2pm – Students will be sorting through campus waste to see what kinds and amounts of refuse the campus generates.
- Go Green with KD– A&S Fountain from 11am to 4pm – Come visit the ladies of Kappa Delta and the members of the Environmental Science Club to find out how to upcycle.
- Wednesday, April 20th- Go Green with KD – A&S Fountain from 11am to 4pm – Come visit the ladies of Kappa Delta and the members of the Environmental Science Club to find out how to upcycle.
- Times Talk – Basement of Beeson Hall at 12:30pm– Eat some free pizza and participate in a discussion facilitated by the club on an environmental article from a recent issue of the New York Times.
- Thursday, April 21st- Go Green with KD – A&S Fountain from 11am to 4pm – Come visit the ladies of Kappa Delta and the members of the Environmental Science Club as we upcycle and reuse clothing, accessories, and other fashionable items.
- Community Environmental Symposium – A&S Auditorium at 5:30pm – Enjoy presentation by local students about how they are increasing environmental awareness in Milledgeville.
- Friday, April 22nd- Shades of Green Exhibit Reception – Kilpatrick Hall Atrium 5pm – A time of recognition for the contestants who contributed to the project submissions.
- Earthday at the Greenway – The Oconee River Greenway at 4:30pm – Join the club for an Earth Day celebration complete with entertainment and local vendors.
- Technology green ideas were shared with the campus at <http://www.gcsu.edu/technology/green.htm>



Environmental Education Recommendations

1. Promote the Green Initiative through every means necessary to ensure that everyone knows what it is, how to access information, and why to contribute to sustainability
2. Support and reward faculty who incorporate sustainability into their courses
3. Use positive encouragement to get campus citizens to adopt habits that promote sustainability
4. Provide students, staff and faculty with information that allows them to make informed, responsible decisions concerning sustainable living
5. Secure funding sources for printing costs, speaker fees, and educational materials

Materials Management and Recycling Work Group

Mission

Facilitate an efficient materials management program making GCSU a more environmentally sustainable campus.

Goals

1. Identify and inventory current waste reduction efforts
2. Audit the campus waste stream
3. Implement an institutionalized recycling program
4. Create a campus composting program
5. Educate campus on waste management

Materials Management and Recycling Accomplishments

- GCSU instituted a new waste contract in the Summer of 2010 with Advanced Waste. The new contract, negotiated by Kevin Murner and Ben Pratt, will decrease our waste disposal expenses while allowing us to contribute recyclable materials through the hauler. We will be able to collect and process:
 - Cardboard
 - Newsprint
 - Mixed paper
 - Aluminum cans
 - Steel Cans
 - Plastics #1 & #2
- The Campus Recycling Program was launched on September 20, 2010, when over 20 four-unit Blue Bins were placed in academic buildings around campus to collect newsprint, mixed paper, aluminum cans, and plastic bottles.
 - The program was funded with \$60,000 from Federal Stimulus funds, which went for:
 - A concrete pad and fencing for the collection facility at West Campus Village near Building 400
 - 50 Rubbermaid Glutton 4-unit Recycling Stations
 - 60 Rubbermaid Slim Jim single unit Recycling Bins

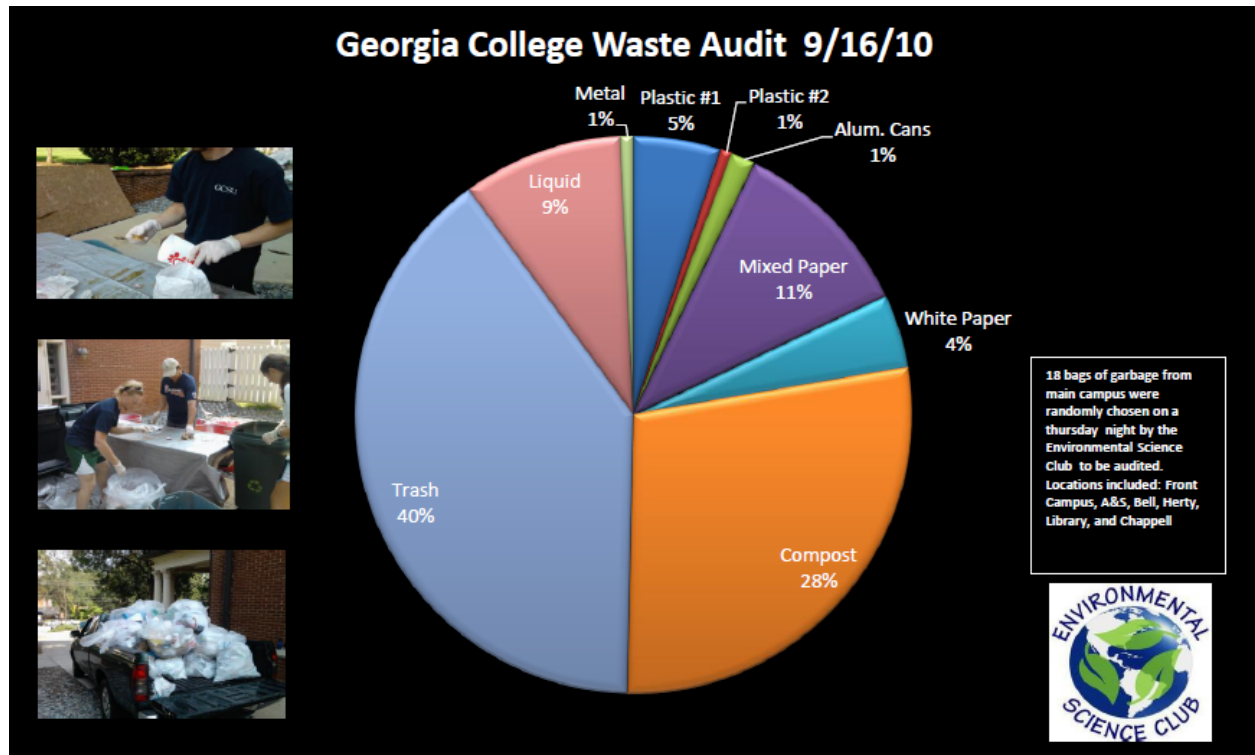


- The program was developed by the Materials work group, Plant Operations, and the Student Government Association, with the direct involvement of SGA President Zach Mullins
 - *“On Behalf of the students of Georgia College I would like to extend to you my appreciation and thanks for joining us on Monday, September 20, 2010 to help launch the first comprehensive recycling project here at Georgia College. As a result of your participation we were able to place nearly 25 four bin containers around campus and make a positive and noticeable difference in the recycling movement. Once again, thank you for your help in making a difference, not only here at Georgia College but for the environment as a whole.”*
 - Zachry R. Mullins, President, Student Government Association
- Student Volunteers will monitor and maintain the bins; over 15 student organizations signed to ‘adopt a bin’
- Plant Operations assisted with a half-time staff person, Charles Hamilton, who opened and maintained the two recycling collection facilities at Centennial parking lot and West Campus Village
- Messaging was posted at collection facilities and online at a dedicated website <http://recycle.gcsu.edu>
- An email distribution list was created to receive updates and concerns recycle@gcsu.edu



- Materials work group captain Doug Oetter conducted a radio interview on WGUR to promote the recycling program (September 22, 2010)
- The Environmental Science Club conducted two Waste Audits. The first, on October 17, 2010, was intended to serve as a Pre-Recycling program audit. The second, on April 19, 2011 was intended to measure the success of the first year of the recycling program.
- Plant Operations established collection bins for recycling difficult items
 - Mercury switches
 - Compact Florescent bulbs
 - Florescent lighting ballasts
 - Nickel-Metal Hydroxide batteries
 - Lead-Acid batteries
 - High-Intensity Discharge (HID) lamps
- The Materials work group and Environmental Science Club promoted National Recycling Day on November 15, 2010
- The Environmental Science Club placed recycling bins at Homecoming Tailgate on February 19, 2011

- The Chemistry Club sponsored an Earth Day cell phone recycling event on April 22, 2011



Materials Management and Recycling Recommendations

1. Implement and Improve the Institutionalized Recycling Program

- a. Solve the problem of overflowing bins;
- b. Provide student organizations with the materials, transportation, and access they need to maintain the recycling bins
 - i. 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.
 - ii. 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 GCSU to drive pickup trucks, so the best available option is a golf cart.
 - iii. GCSU 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.
- c. Provide bins in every building on campus, not just those that agreed to have one

- d. Expand the collection bins to include outdoor locations
 - i. There are currently almost 200 outdoor waste receptacles on the grounds of GCSU. Most of these bins are used for casual waste, including paper, drink containers, and compost.
 - ii. There are no outdoor recycling bins
 - iii. Outdoor recycling bins are expensive, due to the need for strong construction and rain protection.
 - iv. The Materials Work Group is studying locations to position these high-traffic outdoor bins.
- e. Expand the program to include special event drink container bins
 - i. 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.
 - ii. These bins should be made available for special events. They will need to be kept clean and dry, using plastic liners.
- f. Engage students in service learning and work-study
 - i. Service Learning could be used to encourage volunteer participation
 - 1. SIFE, Tri-Beta, Env Sci Club
 - ii. Work Study
- g. 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
- h. Solve downstream problems, including the reliable reporting of waste and recycling tonnage

2. Implement a campus composting program

- a. Inventory existing activities
- b. Evaluate the potential of acquiring a tub composter
- c. Create a composting educational display

3. Educate campus on waste management

- a. A management plan must be cost-effective
- b. Include waste reduction in the campaign
- c. Create educational display- waste before and after recycling

4. 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.

Sustainability Funding Work Group

Mission

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.


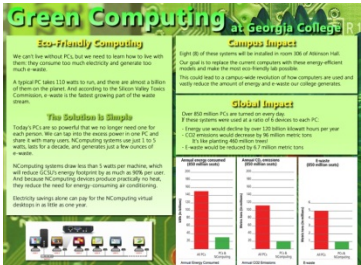
Sustainability Funding Accomplishments

- Student Green Fee
 - First meeting 14 January 2011
 - Established committee and Bylaws
 - Call for proposals
 - Proposals funded April 2011

Green Fee Awards- Spring 2011

	Title	ReRev Equipment for the New Wellness and Recreation Center
	Project Leader	Julia Borland
	Faculty Advisor	Mike Martino, Kinesiology
	Collaborators	Dave Terrell Kurt Reinhard
	Award	\$9,750.00
	Proposal	Borland_GreenFee 11.pdf
	Presentation	

	Title	Solar Lighting at Lake Laurel Lodge
	Project Leader	Dave Kretzschmar
	Faculty Advisor	Jude Hirsch, Outdoor Education
	Collaborators	Will Robinson Dave Kretzschmar
	Award	\$1,990.00
	Proposal	Kretzschmar_GreenFee11.pdf
	Presentation	Kretzschmar_GreenFee11_Solar_Light.pdf
	Title	Advocating Energy Efficiency Through Appliance Timers
	Project Leader	Samuel Ovett, Environmental Science
	Faculty Advisor	Dr. Hauke Busch, Chemistry, Physics, and Astronomy
	Collaborators	Emily Hill Kathryn Angell Kristian Page
	Award	\$285.00
	Proposal	Ovett_GreenFee11.pdf
	Presentation	Ovett_GreenFee11_Appliance.pdf

	Title	Promoting Alternative Transportation Through Covered Bicycle Racks
	Project Leader	Kristian Page
	Faculty Advisor	Dr. Doug Oetter, History, Geography, and Philosophy
	Collaborators	Susan Daniels, Grounds Superintendent
	Award	\$16,300.00
	Proposal	Page_GreenFee11.pdf
	Presentation	Page_GreenFee11_Bikeracks.pdf
	Title	Green Computing
	Project Leader	Philip Robertson
	Faculty Advisor	Bryan Marshall, Info Tech & Marketing
	Collaborators	Daniel Pittman
	Award	\$5,003.56
	Proposal	Robertson_GreenFee11.pdf
	Presentation	Robertson_GreenFee11_Green_Computing.jpg

Georgia College Green Fee Projects Needed!!



-Wondering where your \$5 Green Fee is going?
-Would you like a say in how that money is spent?

-The Georgia College Green Fee Committee will be accepting proposals for Green projects this spring.

*Brought to you by the
Green Fee Committee at
Georgia College*

Deadline for submissions: March 21

For more info email:
greenfee@gcsu.edu

www.gcsu.edu/green/greenfee.htm

Sustainability Funding Recommendations

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 GCSU's Office of University Advancement.
4. Worked to develop a list of ongoing sustainability projects at GCSU that have current funding.
5. 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 GCSU and the council's readiness to continue to seek and manage new grant projects.
6. In addition, it is likely that if GCSU'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.
7. 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.

Water Conservation Working Group

Mission

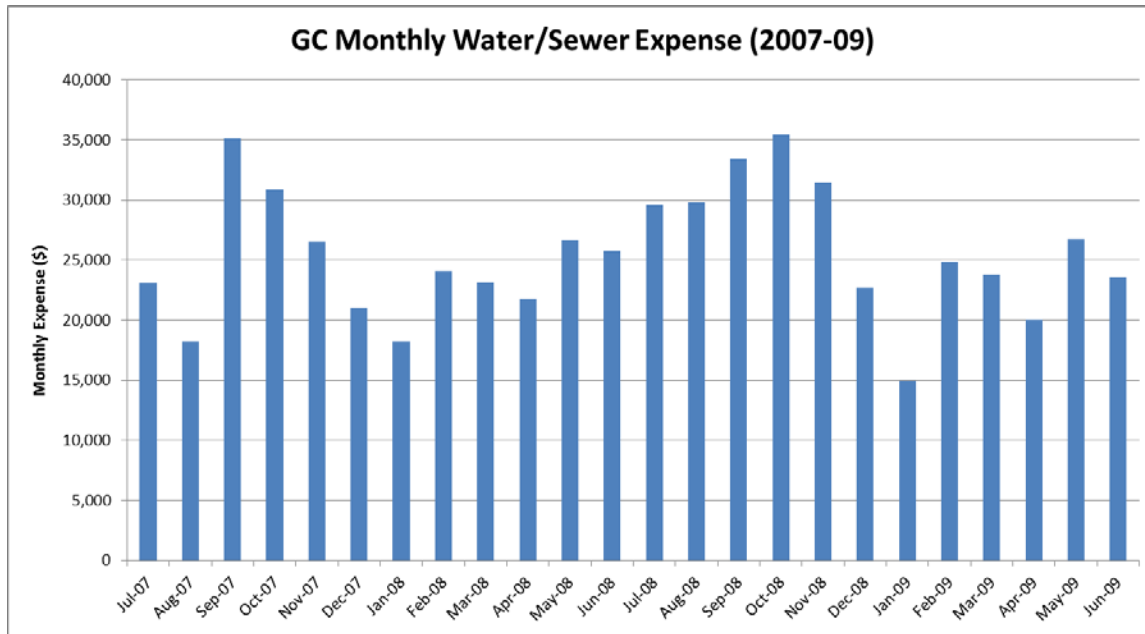
The Georgia College Sustainability Council Water Working Group strives to move Georgia College toward greater environmental sustainability in the area of water conservation, and to create an atmosphere where conservation of water is expected and rewarded.

Goals

- Improve methods employed to measure campus water use and provide periodic water use reports.
- Record and track water conservation related projects.
- Review best practices in water conservation and cost efficiency.
- Generate greater awareness of local and global water conservation issues.
- Recommend actions that reduce water use and promote cost efficiency.

Water Conservation Accomplishments

- GCSU Plant Operations received funding to improve campus water metering. GCSU will be able to reduce the cost of water and improve the tracking of water use once meters are properly located, designated, and labeled.
- Regularly install low flow plumbing appliances, such as *toilets, sinks, showers, and irrigation*
- GCSU Plant Operations received stimulus funding to improve campus water metering. GCSU will be able to reduce the cost of water and improve the tracking of water use once meters are properly located, designated, and labeled.
- Established a Baseline for water use through detailed analysis of water bills
 - June of 2010 thru May of 2011 GCSU utilized 64,107,000 gallons of domestic water.
 - Include all facilities and irrigation due to us not having all buildings metered separately.
 - 6,737 students
 - $64,107,000 / 6737 = 9,515.66$ gallons per student per year.



Water Conservation Recommendations

- Establish an information sharing agreement between Plant Operations and the Sustainability Council so that the Council has access to water use information.
- Complete a campus water use audit.
- Develop concrete water use reduction goals.
- Secure a grant related to energy and water conservation.
- Host a water conservation awareness event/project each semester.
- Target Residence Halls for conservation efforts
- Organize billing statements to create benchmarks of energy expenses
- Explore opportunities to capture and reuse rainwater
- Install irrigation meters to track usage and save on sewage costs
- Shower timers in Residence Halls
- Light switch covers for Residence Halls

Directions for a Sustainable Future at Georgia College

The State of Sustainability at Georgia College is strong and growing stronger every day. In our efforts to create a 'Culture of Sustainability,' the GC Sustainability Council has helped developed teaching, research, and engagement opportunities across dozens of disciplines and departments. We have had pitfalls, of course, but have built a structure that can grow the Green Initiative into a powerful concept for the Liberal Arts mission of the 21st century.

This annual report helps outline progress and directions for the Council. Please use it as a resource and share it widely with your students, teachers, and co-workers. For more information please visit our web site <http://green.gcsu.edu> or get in touch with the Council through our email green@gcsu.edu .

