

Campus Sustainability
10-Year Master Plan

Sustainable CUNY



BROOKLYN COLLEGE



10 YEAR SUSTAINABILITY PLAN

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President Gould
 Brooklyn College
 City University of New York
 2900 Bedford Avenue
 Brooklyn, NY 11210



Dear fellow members of the CUNY community,

I am very pleased to share with you our plans and our commitment to advance environmental sustainability over the next ten years.

At Brooklyn College, we believe that every member of our campus community bears responsibility for ensuring a sustainable future for our borough, our city, and our planet. Over the past several years, we have been taking important steps to reduce our waste, increase our energy efficiency, and engage our campus community in promoting an array of important sustainable practices. We also have begun construction on our first LEED-certified building, the Leonard & Claire Tow Center for the Performing Arts, which will open in 2014.

Our ten-year sustainability plan sets an ambitious agenda for the future, which is organized around eight pillars of environmental responsibility. We will:

- build upon existing initiatives to reduce greenhouse gas emissions and increase energy efficiency;
- develop additional opportunities for the campus community to take advantage of green transportation alternatives;

- make cost-effective investments in equipment and fixtures to reduce unnecessary water consumption;
- promote recycling, composting, and other waste-reduction initiatives;
- source local, organic, and seasonal food for our dining facilities;
- modify our procurement practices in support of environmentally friendly products for use in college business;
- explore opportunities to provide additional academic offerings with content applicable to environmental sustainability; and
- continue to engage our campus community in actions that will promote a sustainable future.

The respectful stewardship of our environment and natural resources is a responsibility we take seriously. While there is still much to be done, the students, faculty, staff, and administration of Brooklyn College are working together to help foster a more sustainable future for all.

Sincerely,

Karen L. Gould, President
 Brooklyn College

Brooklyn College Overview

Campus Mission Statement

The mission of Brooklyn College's sustainability initiative is to create an overarching culture of sustainability throughout the entire campus community. We are achieving this by raising awareness of, engagement in, and commitment to reducing our carbon footprint through



campus-based education, research, operations, collaboration, and service. Our sustainability activities recognize the constraints, opportunities, and responsibilities attendant with our urban location in one of the most densely populated cities within the United States.

To advance this mission, the college has convened the Brooklyn College Sustainability Council and the Provost's Task Force on City-Based and Sustainability Education to evaluate sustainability on campus and make recommendations for improvements in the pillar areas of: (i) waste reduction and recycling; (ii) energy; (iii) water; (iv) procurement; (v) transportation; (vi) education and outreach; and (vii) food and nutrition.

Goals for advancement in each of these areas are included in this, Brooklyn College's 10-Year Sustainability Plan. This plan guides the college's green initiatives, in conjunction with the CUNY Sustainability Initiative and PlaNYC 2030, and in partnership with businesses, government, regional, and city-wide organizations.

Campus Description and Scope

Brooklyn College is recognized nationally for its rigorous core curriculum and programs in the arts and sciences, education and business. The college is located between the neighborhoods of Flatbush and Midwood in Brooklyn, with a student body that reflects the cultural diversity



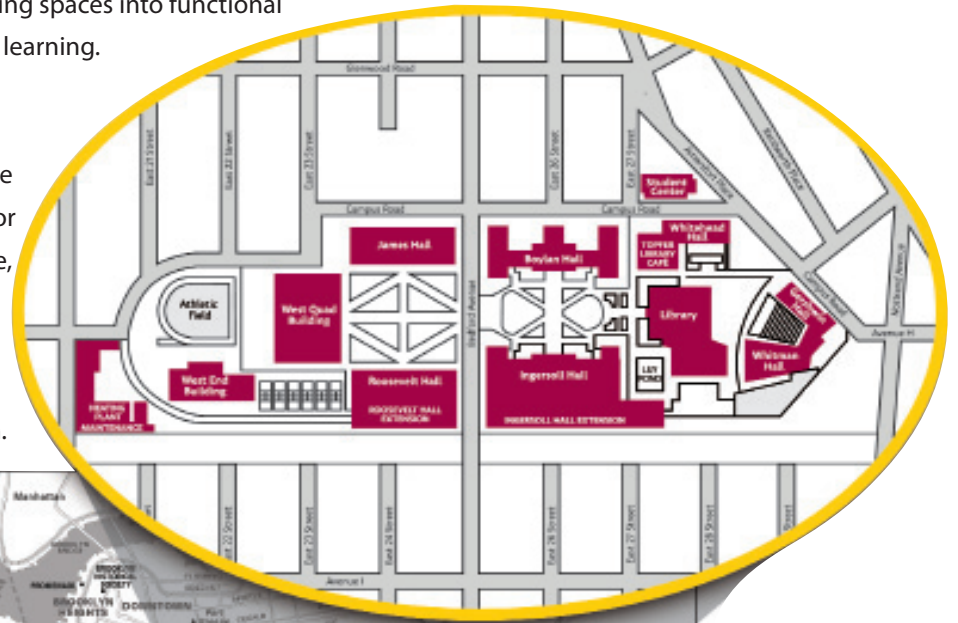
and global connections of our neighborhood and the city. Overall enrollment is approximately 17,000 with high school averages and SAT scores of entering students continuing to rise. The college supports vibrant honors programs and enhanced advisement for incoming students. The college continues to chart a forward-looking course of innovation, renewal and strategic growth, with over 50% of the full-time faculty appointed since 2000, new programs being planned, an ambitious capital improvement building program, and a new facilities master plan for the next ten years.

Our campus was built by the Works Progress Administration in the 1930s, and was originally modeled on Thomas Jefferson's design for the University of Virginia. Architect Randolph Evans envisioned a campus of stately redbrick Georgian buildings, centered on a grassy main quadrangle. The Princeton Review consistently cites the college's gorgeous, urban campus as one of its major draws. The original neo-Georgian buildings around the central quadrangle established a strong campus image that continues with new constructions and renovations today.

As outlined in the new facilities master plan, the college's physical plant is aging and out of tune with current needs. Many of the original 1937 buildings have not been sufficiently renovated and the campus requires extensive reconstruction and technological upgrading. The plan outlines goals

for reclaiming the campus after years of neglect and transforming existing spaces into functional and inspiring places of learning.

In keeping with our commitment to provide students with a superior educational experience, in 2002 Brooklyn College embarked on a major capital improvement program.



With a major renovation completed in 2003, the library is now one of the most technologically advanced learning resources in New York City and features the state-of-the-art Woody Tanger Auditorium. The library also houses four computerized classrooms and a faculty training and development laboratory. The Morton and Angela Topfer Library Café is open 24 hours a day, seven days a week.

The new West Quad Center was completed in 2009 and is the first new building to be constructed at Brooklyn College since the 1970s. The center,



bordered by a verdant quadrangle, is a new four-story building housing student services and state-of-the-art physical education and athletic facilities under one roof. In keeping with the college's mission to become a more student-centered campus, the West Quad Center provides students with a central location to conduct all their college business transactions. One of the key features of the West Quad Center is the Enrollment Services Center, which centralizes most student services into a time-saving, one-stop facility. The new building houses an 11,700-square-foot gym and a 25-yard, eight-lane swimming pool with two diving boards.

Guided by the CUNY Master Plan and the 2009 reaccreditation report of the Middle States Commission on Higher Education, the college recently completed a strategic planning process to prioritize institutional and operational goals through 2016. It also updated its facilities master plan for the next ten years, which will retain the beauty of the original campus while bringing critical infrastructure renovations to support 21st-century teaching, learning, research, performance, and student life. Our goals of maintaining a sense of place and a safe, student-centered environment remain high priorities.

Additional improvements to the college's facilities will be achieved with construction of the Leonard





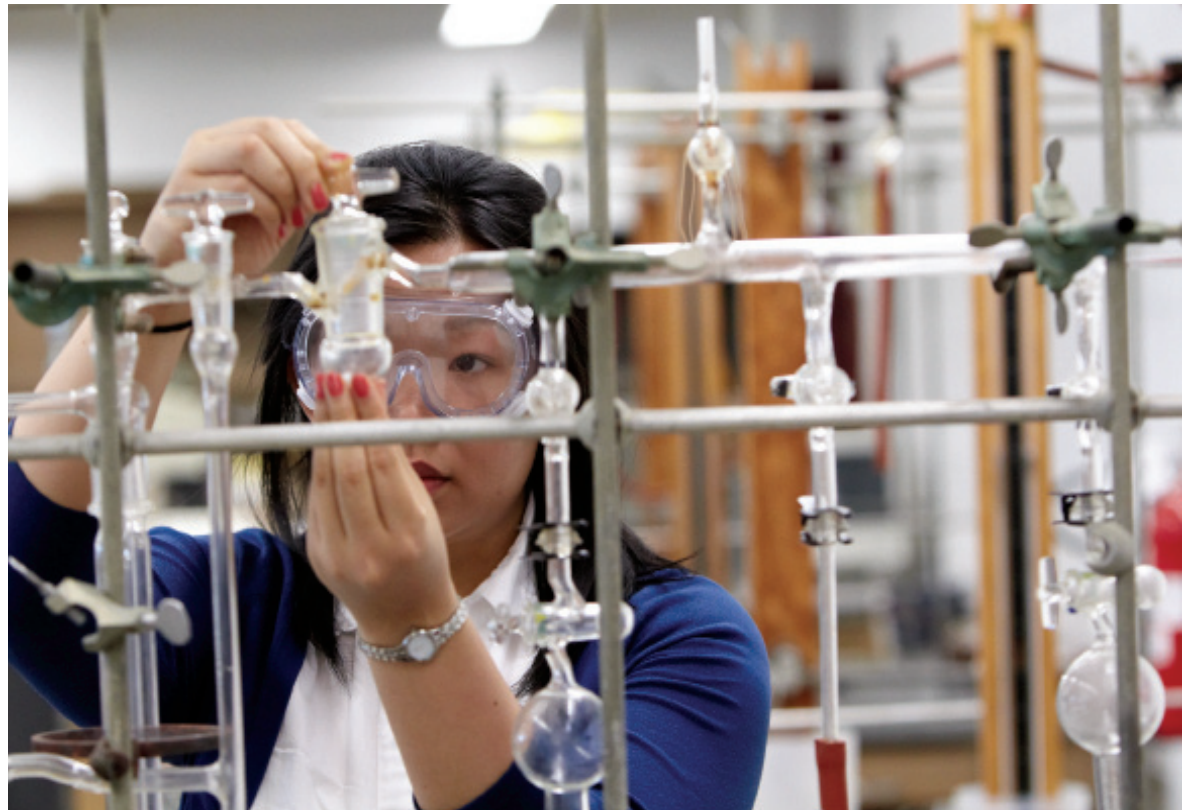
& Claire Tow Center for the Performing Arts, begun in 2011, which will provide space for the nationally renowned music and theater programs. The plan calls for the demolition of Gershwin Hall and the construction of a new LEED-certified building, which will include rehearsal and performance space, set design and construction workshops, ground-floor exhibition space, a double-height theater seating 225, a grand lobby and arcade, and classroom, meeting and reception rooms. It will also provide for a new and enhanced entry to the eastern end of the campus.

In response to the City University of New York's designation of the Decade of Science, Brooklyn College is well underway with design development for the Roosevelt Science Teaching Commons, which will improve science teaching facilities for its programs in biology, chemistry, geology, physics, computer and information sciences, health and nutrition sciences, mathematics, psychology, anthropology, speech and hearing sciences, and exercise science. This multi-million dollar project calls for the demolition of Roosevelt Hall and Roosevelt Hall Extension and the construction of a new facility that will include instructional laboratories and general-purpose classrooms, faculty offices, and support areas.

Finally, a partnership with an area developer led to the first-ever student residence hall located two blocks from the campus, which opened in fall 2010.

The 290-bed facility is owned and operated by a private company.

Brooklyn College is well served by public transportation from many areas. The B, Q, 2 and 5 trains have a number of stops within the community, and the B6, B8, B35, B23, B41, B44 and B49 bus routes serve the neighborhood. The Q35 connects Flatbush with Rockaway Beach, while the B103 provides a relatively rapid connection to Downtown Brooklyn.





Plan Summary

Brooklyn College's sustainability plan is the result of almost two years of work. Its authors made extensive efforts to gather input and feedback from a significant cross section of the campus community, specifically those faculty, staff and students who will be involved in the plan's implementation over the next several years.

To reduce waste, Brooklyn College is expanding its recycling program, locating additional metal, glass and paper recycling bins in all public areas in buildings and on the quads. To reduce volume of bulk waste shipped off campus, the college will designate or acquire a new paper compactor, container or bailer, setting aside a section of the Roosevelt dock to store bags of recyclable bottles and cans—along with larger items such as old metal furniture and inefficient/non-functional window air conditioners—for Department of Sanitation pick-up or nonprofit donation. The college disposes of organic waste on campus, through composting and mulching, to decrease the volume disposed in regular trash.

We will continue efforts to change campus culture around paper use by transitioning to electronic distribution of memos, reports, purchase orders and brochures, and digitizing forms, archives and administrative processes. In addition, we



are discouraging reckless printing and copying by promoting a ‘Think Before You Print’ message through policy and training. Community participation, awareness raising and training will be an essential aspect of these efforts and the College is gearing up to conduct a comprehensive public relations campaign targeting students, staff, and faculty. In partnership with the Department of Sanitation, NYPIRG and the Office of Communications and Marketing, we will encourage the campus community to properly dispose of waste and recyclables.

Brooklyn College will reduce water overuse through a combination of communications for behavior change and equipment upgrades. For example, signs will be posted in bathrooms indicating contact information to be called should someone spot a leak or other problems. We will investigate possible upgrades to water fountains in order to reduce the use of bottled water. Other projects will include a comprehensive water survey, research on the status of retrofitting plumbing with touchless, low-flow devices and aerators, and a cost vs. carbon impact assessment of continuing improvements and upgrades. These will all be evaluated in coordination with Office of Facilities, NYPIRG, faculty and students. The college will also explore low-flush technology for toilets and urinals, and will explore possible uses for graywater including irrigation or flushing toilets. Brooklyn College will reduce energy use and

achieve overall savings by further upgrading inefficient light fixtures, bulbs and motors and changing light switches to motion sensor or infrared technology. In cooperation with the New York Power Authority, CUNY and the Dormitory Authority of the State of New York, an evaluation of our campus load and estimation of potential savings of these interventions will be conducted. Brooklyn College will also improve efficiencies in its heating, ventilating, and air conditioning systems throughout the campus by completing a campus-wide steam trap/radiator valve project, upgrading or replacing inefficient window air conditioners,



boiler and burner controls, and exploring installation of window blinds or shades.

A significant public relations campaign will focus on educating the community to conserve energy by turning off lights when not in use, shutting down computers at night, and keeping windows closed. Over the longer term, the college will explore generating energy on campus by installing photovoltaic panels on various flat roofs around campus. The college has committed to obtaining LEED certification for all future planned construction. To that end, we are slated to obtain



LEED certification for the Leonard & Claire Tow Center for the Performing Arts that is currently under construction.

Brooklyn College has begun making major changes in green procurement, purchasing biodegradable, recycled and reusable paper products, janitorial products and cleaning accessories, including green trash bags that dissolve in landfills. We will continue to conduct awareness raising and education around “green” procurement, encouraging the campus community to reduce waste by purchasing items that are not shipped with extraneous packaging. The Office of Purchasing is compiling a directory of green vendors, suppliers and contractors and will encourage the campus community to use them whenever possible.

In food and nutrition, the college is reducing its carbon footprint by collaborating with Metropolitan Food Service in an effort to replace plastic and Styrofoam with biodegradable, post-consumer, and refillable containers. We will educate the campus community about natural foods, nutrition and caloric content by working with Metropolitan Food Service, the Department of Health and Nutrition Sciences and the Office of Communications and Marketing to produce signage and other educational materials highlighting where our food comes from, how it is prepared, and ways our students can make



healthier food choices. We hope to improve general campus-wide health by encouraging Metropolitan Food Services to offer fresh, low fat, locally grown and natural foods. Prominently displayed suggestion boxes encourage input from the college community to the dining service.

Brooklyn College will also seek to decrease carbon emissions by encouraging increased use of biking, along with bike safety education, as well as carpooling, public transportation and walking, while raising awareness about the college's ongoing efforts to green its vehicle fleet and promote sustainable transportation to and from the campus. Working with Public Safety and the Office of Communications and Marketing, we will rollout a public relations campaign to advertise our efforts to go green in transportation. The college is utilizing alternative fuel as well as hybrid technology in its vehicle fleet. We will encourage bicycling by adding and maintaining bicycle racks in safe, well-lit, accessible locations that are easily seen by security officers, and will explore developing a bike-sharing program. The college will promote bicycle safety through workshops, information referrals and online information in partnership with city-wide and Brooklyn-based nonprofits and other community organizations.

To support, monitor and promote activities in sustainability-related curriculum and faculty research, Brooklyn College facilitated a partnership

between the Provost's Task Force on City-Based and Sustainability Education, the Center for the Study of Brooklyn and the Brooklyn College Sustainability Council to create a website, host events and compile an inventory of curriculum and faculty teaching and research on sustainability. The college will review its staffing levels to meet the goals of coordinating, monitoring and reporting on ongoing sustainability initiatives that are included in its 10-year plan in response to recommendations issued by the sustainability council. In partnership



with various offices and academic departments, we will enhance student training in “green” jobs by encouraging students, staff and faculty to learn about innovations in sustainability. The college will work to incorporate sustainability into classes and correlate sustainability-related coursework with focused internships and career counseling. The Magner Center for Career Development and Internships will develop a list of available internships in environmental studies and sustainability, including green businesses, non-profits, non-governmental organizations and others. Through a coordinated effort of the Office of Communications and Marketing, film department, the TV/radio club and students, we

will conduct an extensive awareness-raising public relations campaign, teach-ins and other events to enhance general campus awareness about our efforts to go green. Extending beyond the campus, partnerships with the local community include continued implementation of the Brooklyn College Garden and facilitating high school and college students to learn and network around sustainability-related issues through College Now and other Brooklyn College departments and programs. Other community partnerships with organizations such as the Brooklyn Botanic Garden, Brooklyn Navy Yard and the Borough President’s office, will continue to extend our sustainability initiatives into the greater Brooklyn community.





Action Plan by Pillar Area

Finding ways to reduce our campus's carbon footprint remains a high priority. With our campus consisting of thirteen buildings and 2.2 million gross square feet, the challenges are significant.

Some short-term goals relating to energy include the upgrading of energy management systems, utilizing PV lighting in the parking lot and installing surveyor desktop energy management software; intermediate goals involve replacing steam traps, sub-metering of large mechanical systems and utilizing virtual servers; and a long term goal entails assessing the feasibility of combining the elements of cooling, heating and power to work together more effectively.

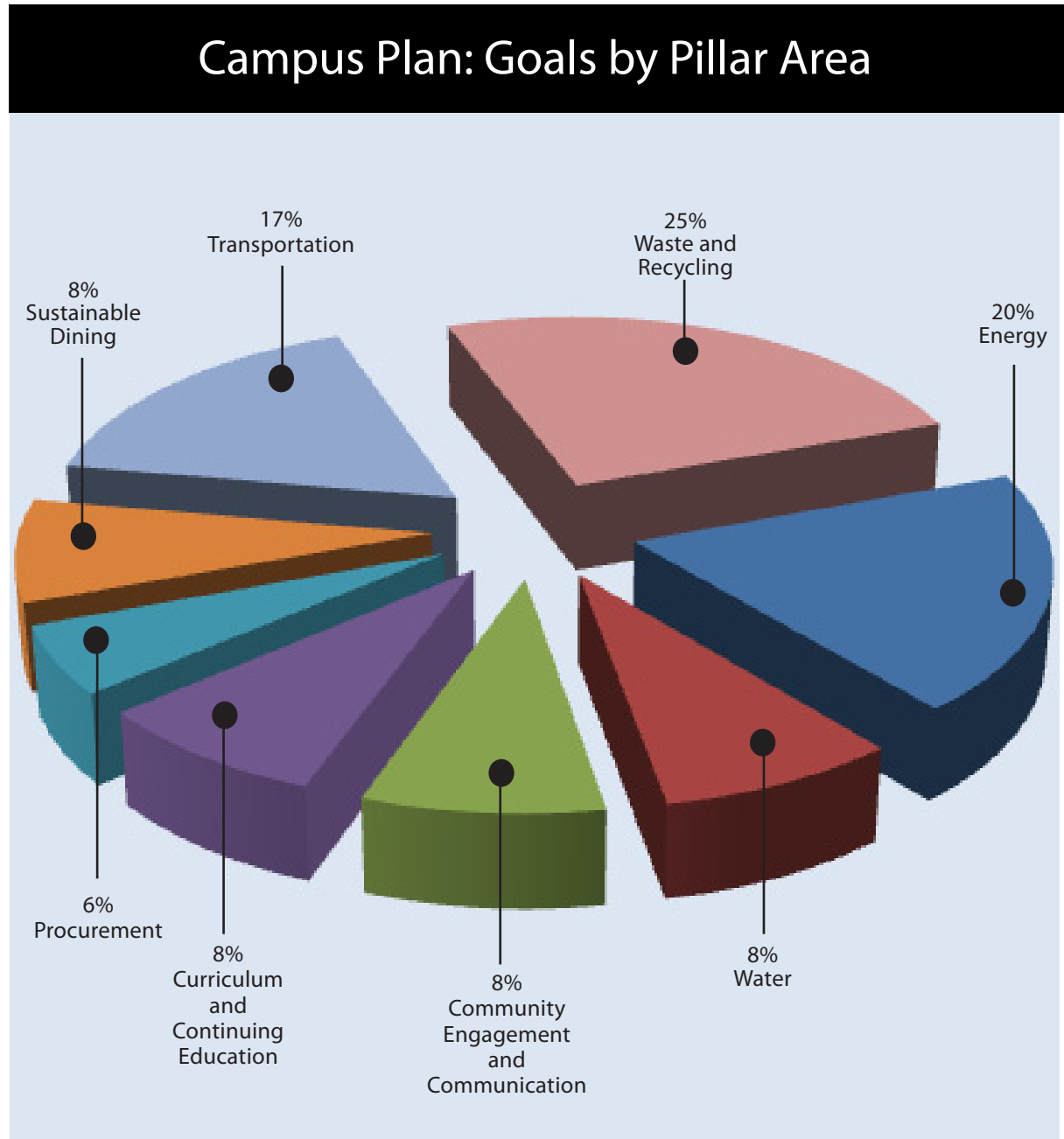


Figure 1



Energy

◆ Completed Goals:

- Established steam-trap and radiator valve maintenance program
- Instituted a power-down policy for all computers

◆ Goals in Progress:

- Develop education campaign(s) to minimize waste and cut consumption.
- Upgrade inefficient/non-functioning window A/C units
- Upgrade remaining windows to more energy efficient thermal models
- Upgrade inefficient burner controls
- Implement water treatment program on HVAC equipment
- Develop plans to retrofit science building fume hoods with energy-efficient models
- Target and obtain LEED Silver or higher for new Tow Performing Arts building

Re-evaluating the way we use energy, particularly in our buildings, represents the largest single opportunity to reduce greenhouse gas emissions. Through improved energy efficiency, changes to operating practice and a switch to clean & renewable energy sources, Brooklyn College is contributing to CUNY's 30% emissions reduction target.

CUNY GHG Emissions 04-08

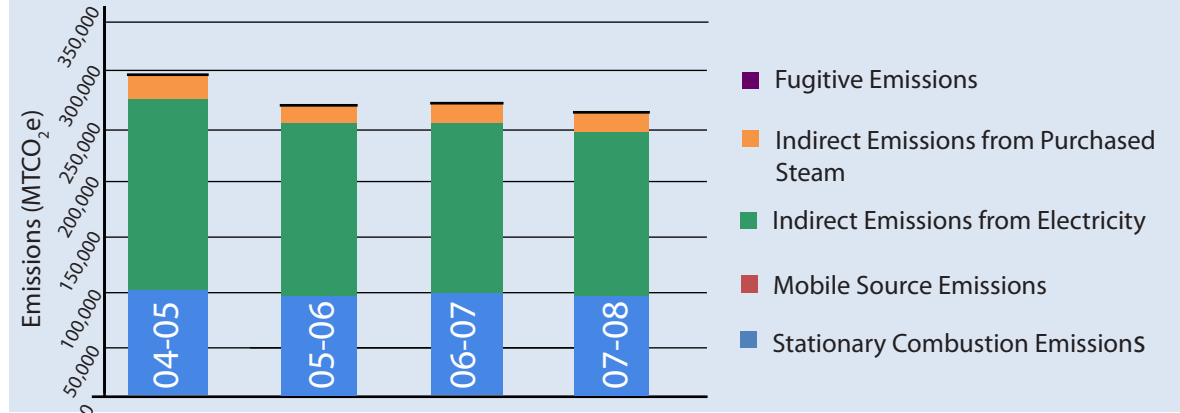


Figure 2

Energy Initiatives Matrix

ECM Description	Annual Electrical Savings (kWh)	Annual Fossil Fuel Savings (MMBtu)	Annual Energy Cost Savings (\$)	GHG Reduction (MT Co ₂ e)
Lighting Fixtures and Controls	2,300,000	0	\$253,000	856
Energy Metering and Monitoring	0	0	\$-	0
Campus-wide DDC Building Automation System	2,400,000	37,500	\$744,000	3,115
Recommission Central Chiller Plant Controls	1,990,000	0	\$219,000	738
HVAC System	123,000	450	\$19,000	72
Steam Trap Maintenance Program	0	17,000	\$218,000	1,008
Boiler Heat Recovery	0	1,600	\$21,000	95
Data Center Energy Improvements	333,000	0	\$27,000	124
Totals	7,146,000	56,550	\$1,511,000	6,008

MMBtu = 1,000,000 Btu
 MTCO₂e = Metric tons of CO₂ equivalent emissions

Figure 3



Energy

◆ Future Goals:

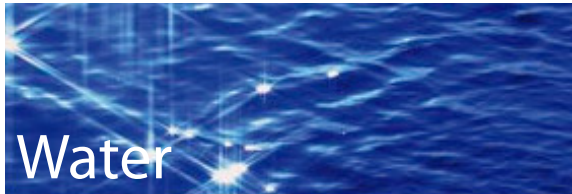
- Evaluate and explore upgrading remaining inefficient lighting
- Install motion/occupancy sensors to control lighting
- Upgrade remaining inefficient motors
- Explore installation of solar PV on campus
- Explore 'Passive House' standard for Whitehead Hall

“Energy use in CUNY buildings accounts for approximately 80 to 90 percent of total greenhouse-gas emissions across the University.”

In Focus: Brooklyn College Breaks Ground on Green Performing Arts Center



Brooklyn College broke ground this May on the new Leonard & Claire Tow Center for the Performing Arts, an exciting modern addition to campus, set for completion by 2014. Designed by Pfeiffer Partners Architects, the building is also seeking LEED Silver certification, which would make it the college's first LEED building.



Water

- ◆ Goals in Progress:
 - Developed education campaign(s) to minimize waste and cut consumption
 - Developed inventory of water facilities and fixtures
 - Upgraded landscaping sprinkler system in central and west quads
 - Periodically assess potable water quality and share findings.

- ◆ Future Goals:
 - Include stormwater capture and reuse in new construction projects
 - Upgrade water fountains
 - Upgrade bathroom and kitchen fixtures to reduce water use (low-flow fixtures/aerators)

Water is a vital and precious resource and Brooklyn College is taking measures to cut unnecessary water consumption and waste by upgrading to low-flow water fixtures, repairing leaks and reviewing its irrigation and water treatment practices. Brooklyn College is also doing its part to lower the burden on the city's water treatment facilities through green infrastructure projects (i.e. permeable paving, green roofs and storm water retention).



Studies show that installation of low-flow aerators in homes can affect a 13% reduction in daily per capita faucet water use. If a family of four replaces their kitchen and bathroom faucet aerators they would save more than 1,700 gallons of water per year.



Transportation

- ◆ Completed goals:
 - Promoted walking and cycling on and to campus
 - Upgraded on-campus fleet to include more electric and alternate fuel vehicles
- ◆ Goals in Progress:
 - Improve incentives and campus access for public transit users
 - Explore shuttle bus service around the campus and local public transit hubs
 - Facilitate car-pooling through IT solutions
- ◆ Future Goals
 - Explore shuttle bus service between BC, KBCC, and MEC

Brooklyn College is targeting two areas to impact transportation emissions—its vehicle fleet and the commuting choices of its students, faculty and staff. Cleaner, more fuel efficient vehicles, including hybrid and electric vehicles, make up our fleet and while many already commute to Brooklyn College using public transportation, this and other green commuting options are being encouraged and expanded.

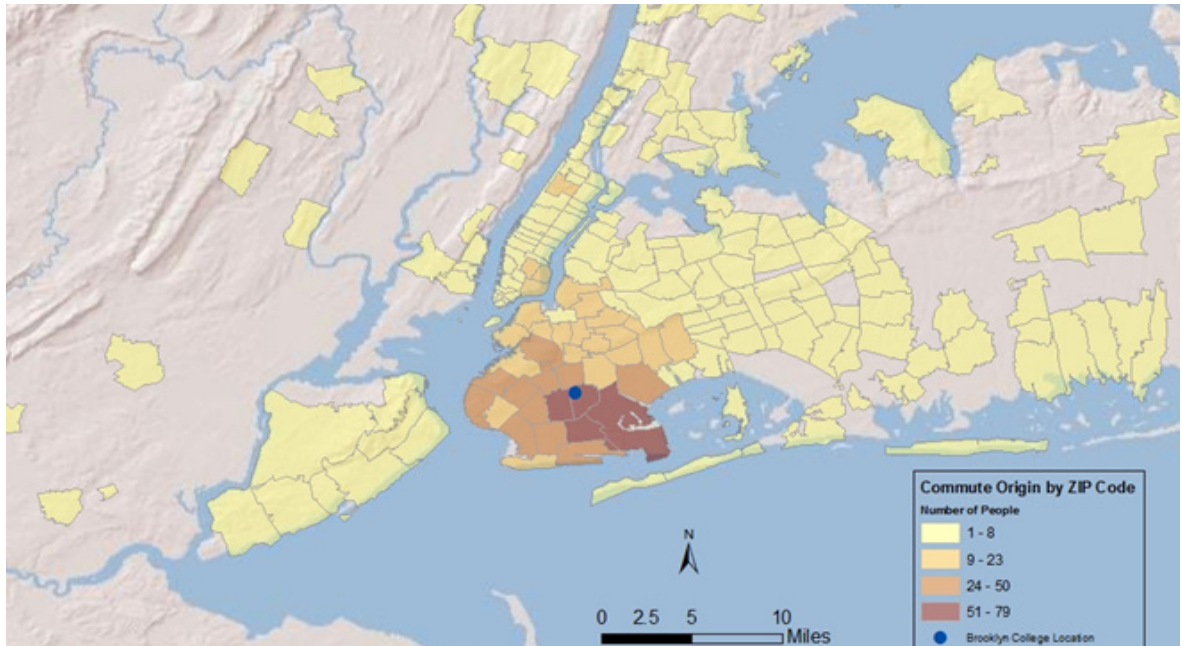


Photo Credit: Miheco

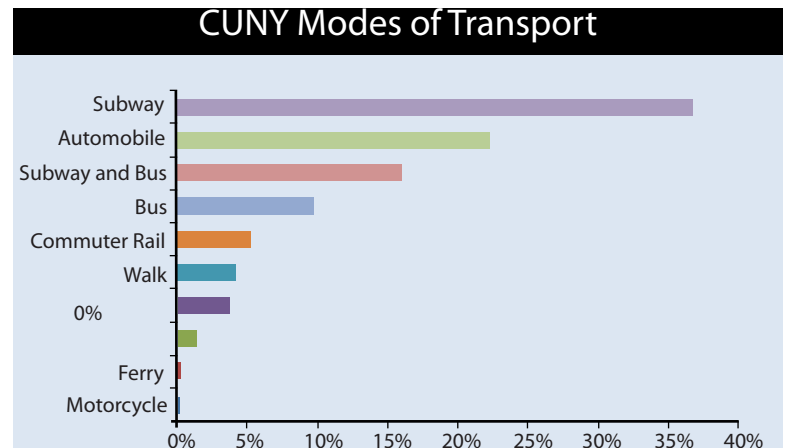


Figure 4



- ◆ Completed Goals:
 - Developed education campaign(s) to promote recycling and better waste disposal
 - Created baseline and track waste and recycling volumes/quantities
 - Deployed recycling bins around campus (interior and exterior)
 - Improve cafeteria recycling levels
 - Installed 30-yard container for scrap metal and secure recycling partner
 - Recycled construction and demolition debris and secure partnership to assist
 - Recycled cooking oil for use as bio-diesel
 - Recycled e-waste, light bulbs, batteries, Freon
 - Use biodegradable bags for landfill-bound waste
- ◆ Goals in Progress:
 - Make available reusable drinking vessels
 - Expand composting activity on campus
 - Enact multiple measures to minimize paper use and waste
 - Assess need for additional cardboard bailer

Brooklyn College is targeting two areas to impact transportation emissions – its vehicle fleet and the commuting choices of its students, faculty & staff. Cleaner, more fuel efficient vehicles, including hybrid & electric vehicles, make up our fleet and while many already commute to Brooklyn College using public transportation, this and other green commuting options are being encouraged & expanded.

GHG Emissions from Waste & Recycling

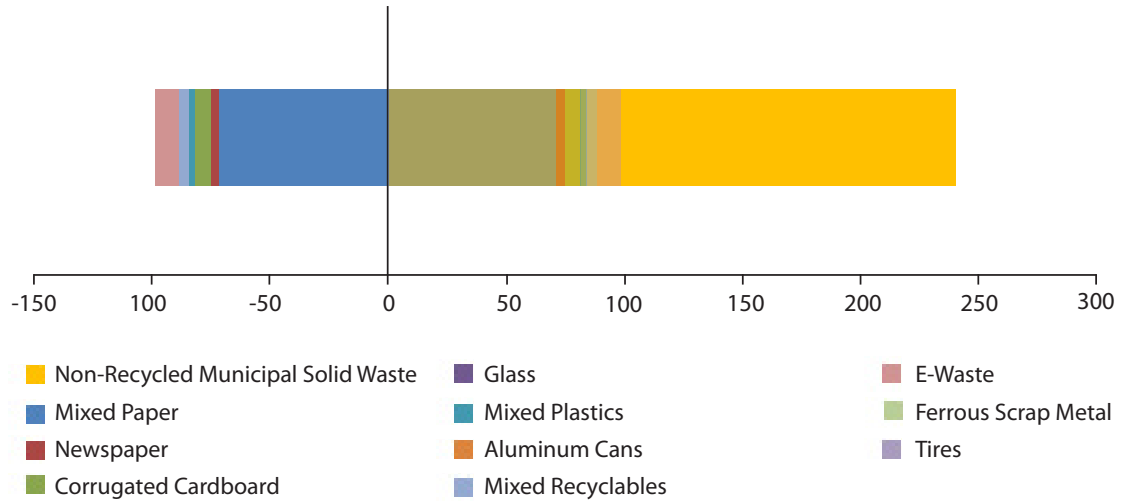


Figure 5

Equivalent Impact of Recycling in terms of GHG:

- ◆ 81,742 gallons of gas
- ◆ 142 passenger cars
- ◆ 1,690 barrels of oil
- ◆ Annual energy emissions from 63 US homes
- ◆ Carbon sequestered by 155 acres of pine forest

Figure 6

Waste and Recycling Breakdown

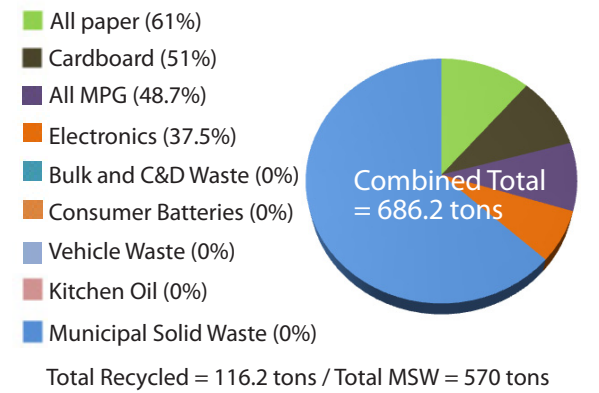


Figure 7



“Waste reduction and sound management practices for raw materials in North America lead to an environmentally sustainable economy.” -National Recycling Coalition, Inc.

7 Steps to Homegrown Composting

1. Decide on a final design (many models available)
2. Develop a list of materials needed and cost them out; seek recycled lumber
3. Get lumber cut to size by volunteer with a radial arm saw
4. Prepare site for the bins
5. Plan a work party for a "bin raising"
6. Celebrate by "stocking" our new bins with existing greens and brown material.
7. "Harvest" black gold.

In Focus: Brooklyn College Takes on Urban Composting!

The project will build a three-bin composting structure to enrich the soil in individual plots in our new garden and to assist in taking care of neglected street trees which we have claimed under the Million Trees initiative. The work will be performed by volunteers drawn from students, faculty and staff at Brooklyn college and individuals from the neighborhood surrounding the college. The outcome will be a state-of-the-art composting system and tools to use it to enrich our soil and our lives.

The new BC Garden will enhance the College’s academic mission and foster partnerships with gardeners from the college (students including current and future K-12 teachers, staff, and faculty), the neighborhood, the Brooklyn Botanic Garden, other Brooklyn Gardens and the many organizations in NYC with compatible missions and goals.



Procurement

- ◆ Completed Goals:
 - Purchased more recycled, biodegradable, and reusable products (including copy and janitorial paper)
 - Purchased and use environmentally-friendly cleaning supplies and paints
- ◆ Goals in Progress:
 - Develop education campaign(s) to promote and increase 'green' procurement
 - Generate a directory of 'green' products, services and vendors to guide purchasing decisions

Traditional purchasing considerations of cost & efficacy need to be balanced with a third factor – environmental impact. From the purchase of copy paper & computers, to paint & carpeting, from how the product is made and its lifecycle value, to how easy it is to dispose of at the end of its useful life, Brooklyn College is carefully greening its procurement choices.

Green Purchasing Matrix		Implemented	Planned
Environmentally preferable purchasing practice		EPEAT computers and monitors	
Energy Star or Similar Electronic Equipment		Energy Star or Similar Mechanical Equipment	
Energy efficient A/C window units		Refurbished/recycled toner cartridges	
Certified green cleaning products		Low/No VOC Paints	
Low flow toilets/urinals		Biodegradable bin liners	
Recycled content copy paper		Recycled content tissue paper	
Remanufactured carpet tiles		Remanufactured furniture	
Electric or alternate technology vehicles		locally grown foods	
Organically grown foods		Organic or compostable plastic foodware	
Transition to paperless procurement		Tracking and Monitoring 'Green' purchasing	
Using life-cycle assessment in procurement decisions			

Figure 8

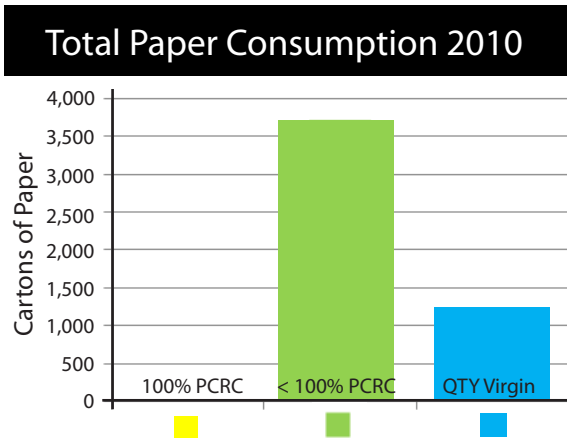


Figure 9

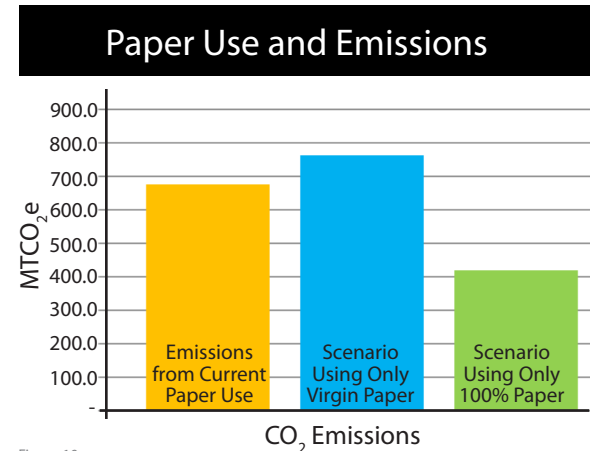


Figure 10



Sustainable Dining

- ◆ Completed Goals
 - Encouraged dining service partner to purchase locally/sustainably grown foods
- ◆ Goals in Progress:
 - Include sustainable practice requirements upon renewal of dining service contract
 - Encourage the use of reusable drinking containers
 - Develop educational campaign(s) to promote sustainable dining practices
 - Include healthier, fresher, and low-fat options in cafeterias and vending machines
 - Minimize cafeteria use of plastic and styrofoam service ware

Sustainable dining means not only providing healthy, nutritious & affordable meals, but also a service which attempts to minimize its impact on the environment. To this end, (through its vendor partners) Brooklyn College is sourcing more local, organic & seasonal food, is composting food scraps, is using less plastic & Styrofoam service ware and recycling used cooking oil.



Sustainable Dining Matrix		■ Implemented	■ Planned
Sourcing Foods Locally	Using Organically Farmed Foods	■	■
Growing Food on Campus	Displaying Nutritional Information	■	■
Healthy Menu Options	Phasing Out Styrofoam	■	■
Rewarding Beverage Container Resuse	Tray-less Cafeteria	■	■
Using Organic or Compostable Plastics	Composting Cafeteria Foodscraps	■	■
Composting Kitchen-side Foodscraps	Recycling Receptacles in Cafeteria	■	■
Recycling Kitchen-side Waste	Recycling Kitchen Oil	■	■
Using 'Green' Cleaning Products Kitchen-side	Energy Efficient Vending Machines	■	■
Healthy Vending Machine Options	Sustainable Dining Contract	■	■

Figure 11

Outreach and Sustainable Education

- ◆ Completed Goals:
 - Promoted 'green job' opportunities through career counseling, job fairs, and internships
 - Developed campaign(s) to increase BC community's awareness of sustainability themes and topics
 - Created and continue to maintain a section on the college website dedicated to sustainability
- ◆ Goals in Progress:
 - Develop pilot tree stewardship program for College NOW students, in partnership with Parks Department
 - Increase student awareness, input, and participation in the college's sustainability goals and projects
 - Encourage awareness of sustainability in high school students through College NOW and similar programs
 - Review and develop existing academic research and course offerings featuring sustainability content

Engaging the community in Brooklyn College sustainability effort is central to its success. Brooklyn College is engaging its community through public events & speaker series, clubs, educational campaigns as well as via its online media platforms. In addition, to respond to the growing demand for learning in this area, Brooklyn College is also offering more and more classes, courses, degree programs & research opportunities in the multiple fields related to sustainability.



In Focus: New Concentrations in an Environmental Studies Degree Program

- Environmental Economics
- Environmental Science
- Environmental Sociology

"Our place-based, problem solving approach to learning takes advantage of our urban setting. Students will have the opportunity to examine firsthand the causes of the urban sustainability problems of the 21st century, and devise solutions that promote environmental protection, social equity, and economic vitality."

Figure 12

Appendix A

Council Members and Partners





Council Members

Name	Title/Department	E-mail Address
Pieranna Pieroni	Director, College NOW, School of Education	pieronip@brooklyn.cuny.edu
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Philip Cruise	Office of the AVP for Finance, Budget and Planning/Comptroller	PCruise@brooklyn.cuny.edu
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* Council Co-Chairperson

Appendix B

Figure Notes





Figure:	Notes:
1	Brooklyn College Campus Plan: Resource Allocation per Pillar
2	CUNY GHG Emissions 04-08
3	Energy Initiatives Matrix
4	CUNY Modes of Transport
6	GHG Emissions Avoided by Recycling Activities (MTCE)
6	Equivalent Impact of Recycling in terms of GHG
7	Waste and Recycling Breakdown
8	Green Purchasing Matrix
9	Total Paper Consumption 2010
10	Paper Use and Emissions
11	Sustainable Dining Matrix
12	In Focus: New Concentrations in an Environmental Studies Degree Program