



Queens College

10 Year Sustainability Plan

1. Campus Mission Statement

Queens College is committed to sustainability---defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. We are guided by commitments in our Strategic Plan to be a “green” campus and the efforts of our Sustainability Council and its partners.

We are committed to energy efficiency in all of our current practices. Our construction and renovation projects are to be environmentally sound, using recycled materials where possible and ensuring maximum energy-efficiency in campus buildings with a goal of reducing energy consumption. We will encourage our faculty, students, and staff to consider forms of transportation with less impact on the environment. Our ultimate goal is to become carbon-neutral in thirty-five years.

We will reduce the overall waste produced on-campus and operate a robust, recycling program. We are moving toward a “paperless” campus and the one hundred per cent use of “green” products.

We will promote water conservation initiatives. We will encourage local sourcing and other sustainable practices in our dining services.

We will train our students to be good stewards of the environment through our educational programs and by the creation of a campus culture of sustainability. We will support the important research by our faculty on the processes in the environment and our impact on it. We will be a model for sustainability for the community.

2. Campus Description

Queens College is located in Flushing on a gentle hill with a commanding view of the skyline of Manhattan. The seventy-five acre campus is imbedded in a suburban setting, somewhat remote from commercial areas and only marginally well served by public transportation. It is not directly served by subway, only by bus. Queens academic programs organized in 4 divisions—Arts and Humanities, Education, Math and Natural Sciences, and Social Sciences--that have over 100 majors, a wide range of interdisciplinary programs and extensive graduate programs. We have over 20,000 students who come from over 140 countries and taught by over 550 full-time faculty. The college is further served by a full-time staff of approximately 1200.

The area that is currently Queens College and the neighboring John Bowne and Townsend Harris High Schools was originally home to the New York Parental School, an institution for troubled boys and truants. Queens College acquired the site in 1937 and has since developed the campus to include more than 2,000,000 GSF of construction. Six of the nine original mission-style buildings, constructed in 1908, remain and form the center of the campus.

Queens College is a mature campus with a sizable campus inventory, in fact, one of the largest in terms of square footage among comparable four-year institutions in New York State. The buildings can be organized into four categories based on the dates of their construction and condition:

- Original Reform School Structures survive from the campus' original use as a reform school for boys.
- Post-War Expansion includes those buildings from the 1950's and 60's, mostly clad in white brick, that represent the first major wave of construction on campus.

- Late-Century Additions were constructed after the City's fiscal crisis of the 1970's. Although these may need some programmatic retooling, their building systems generally remain in good condition.
- Temporaries and infills were designed to provide immediate solutions to space needs, but most were not built of materials that were intended to stand the test of time.

Former Reform School Buildings

Colwin Hall (1925) (30,653 sq ft)

Colwin Hall currently houses biology laboratories and classrooms.

G Building (1907) (12,909 sq ft)

Although almost 100 years old, G Building is home to the College's Department of Media Studies, which occupies the entire building. It originally served as the infirmary when the campus was a reform school for truant boys. The building was renovated when it became home to the faculty offices of media studies in 1988.

Alumni Hall Entrepreneurship Center (1907) (2,449 sq ft)

Formerly J Building is almost 100 years old and is home to the college's Alumni and Entrepreneurship Center.

Virginia Frese Hall (1907) (49,299 sq ft)

Frese Hall (formerly B Building), one of the oldest buildings on campus, was completely renovated in 2001 for use by the Division of Student Affairs and Advisement Center.

Jefferson Hall (1907) (49,299 sq ft)

Jefferson Hall was the administration building of the Parental Home for Boys. The College has recently made a number of improvements to the building, including the installation of a Welcome Center on the first floor.

Delany Hall (1925) (30,402 sq ft)

Delany Hall was renovated in 1991 and 2001 and is home to the College's Search for Education, Elevation, Knowledge (SEEK) program.

Post-War Expansion

Remsen Hall & Addition (1949) (130,787 sq ft)

Remsen Hall is one of the first post-war buildings to be built on campus and houses various departments in the Division of Mathematics and Natural Sciences. Recently, the college completed a 30,000gsf addition which houses state of the art science labs.

Klapper Hall (1951) (177,937 sq ft)

Klapper Hall originally served as the campus library. In 1999, after the construction of Rosenthal Library it was renovated to house a number of departments in the Arts and Humanities, principally art and English. Klapper is also home to the campus' principal exhibition spaces, the Godwin-Ternbach Museum and the Campus Gallery.

Fitzgerald Gymnasium (1957) (175,538 sq ft)

Fitzgerald supports both academic and recreational programs. Recent renovations have included facade stabilization and curtain wall replacement with some improvements to the building's locker rooms, but the principal building systems remain as they were when the building opened.

Colden Auditorium & Goldstein Theater (1960, 1960) (42,266 sq ft, 48,624 sq ft)

Constructed together, they are the campus' principal venues for performances of popular music, theatrical work and large lecture presentations. They represent significant resources to the borough as well, and are frequently used for high school graduations and other community events. The grassy slope of the attractive outdoor performance space at the rear is currently being stabilized and restored. In terms of building upgrades, the buildings are largely untouched.

Gertz Speech Clinic (1960) (7,706 sq ft)

The Gertz Speech Clinic was built as part of the larger Colden Center complex. At the time, it consisted of a small, wedge-shaped building with an interior court open to the elements. In the early 1980's the building was renovated for use as the Speech Clinic and the interior court was roofed over.

King & Rathaus Halls (1960, 1960) (33,154 sq ft, 42,300 sq ft)

Both King and Rathaus Halls were built as part of the larger Colden Center. Rathaus is mostly occupied by the Department of Drama, Theatre and Dance; King is home to general academic classrooms and several departmental offices.

Razran Hall (1970) (55,344 sq ft)

It currently houses physics and psychology research and instructional labs, animal quarters and general academic classrooms.

Kiely Hall (1968) (216,088 sq ft)

Perhaps the most visible symbol of the campus in the community, Kiely Hall was built in as the administrative center. Architecturally, it is composed of two buildings: a base with a ring-shaped series of corridors above which is set a slender tower.

Powdermaker Hall (1962) (224,696 sq ft)

Hortense A. Powdermaker Hall was built to house a number of departments from the Division of Arts and Humanities as well as a quantity of general use classrooms. The building was completely refurbished in 2002. Powdermaker is currently home to a number of programs in the Divisions of Education and Social Sciences.

Student Union (1972) (197,466 sq ft)

The Student Union building was the last of the buildings to be built on campus before the City's fiscal crisis of 1974-75 and was funded by student subscriptions. It is the only building on campus with integrated underground parking.

Kissena Hall (unk) (32,913 sq ft)

Kissena Hall is an off-campus leased facility that has been used as interim swing space for a variety of departments and offices.

Late-Century Additions

Rosenthal Library (1988) (241,524 sq ft)

Rosenthal was built to replace Klapper as the College's central library. It is also home to the Graduate School of Library and Information Studies (GSLIS).

School of Music (1991) (116,523 sq ft)

Given its recent construction, the School of Music Building is in good condition and will require only modest modifications over the coming years. It is home to the Aaron Copland School of Music and LeFrak Concert Hall, the College's principal venue for concert performance.

Science Building (SB) (1986) (252,189 sq ft)

The Science Building, programmed in 1985, was originally intended to be much larger to allow for the consolidation of several science departments. Computer Science and Earth and Environmental Sciences are the only departments currently housed entirely within the building.

Infill Buildings

I Building (1937) (41,414 sq ft)

At the core of I Building is an original mission-style building that has been significantly modified when the front porch was added. The building has become the principal site of the College's Office of Converging Technologies (OCT).

Dining Hall & Dining Hall Addition (1961, 1971) (46,298 sq ft, 4,723 sq ft)

The core of the original building is a service court and food-preparation area around which are arranged dining rooms, reception rooms and circulation corridors.

CEP 1 & 2 (1966) (7,945 sq ft, 7,872 sq ft)

Temporary Buildings (Temp) 1 and 2 were built to fill an immediate need for departmental offices. Since that time they have been re-used to meet a variety of campus needs.

Honors Hall (1966) (12,891 sq ft)

Most recently, Temp 3 was refurbished to house the College's Macaulay Honors College, which offers unique opportunities to ambitious undergraduates.

Campus Plant & Service Buildings (38,303 sq ft)

A variety of support buildings were built to service the new campus, most clustered to the west of I Building. These were built in the late 1940's, including the Heating Plant, L-1 and L-2.-1 and L-2.

3. Council Members

Katharine Cobb	Vice President Finance & Administration	Campus Executive	katharine.cobb@qc.cuny.edu
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4. Plan Summary

The Plan sets goals in each of the seven pillars of sustainability and the steps to be taken to achieve those goals. In some cases, especially in the area of making our buildings more efficient, we will need the infusion of capital funds. In others, we can make changes in current practices or identify changes that will provide a return of investment with more modest funding.

Energy: We built a student residence that is eligible for LEED Silver and an addition to Remsen that incorporated energy efficiency measures. We have several studies of our buildings in progress that will provide recommendations for energy efficient retrofits to those buildings and our goal is to move forward on those upgrades. We would like to have a solar project and a green roof. O'Brian and Gere will provide us with a menu of energy savings projects in their energy audit of our facilities and we plan to implement any that are financially feasible. Any new equipment we purchase will be evaluated in terms of energy-efficiency. If we receive funding, we would like to replace all of our outdoor lighting with either LED or induction lighting.

Water: We are focusing on bathroom retro fits to save water including water-efficient toilet flushes and sensor activated sink faucets. We have a long-term goal of having some type of "grey water" project.

Transportation: We have Zip Cars, the car sharing vendor, on campus. We will continue to expand the percentage of our fleet that is either electric or hybrid. We will also create incentives for the use of alternative transportation, like biking, public transportation, and car pooling

Recycling/Source Reduction: We will reduce the total amount of waste produced and expand the percentage of the waste that is recycled. We will continue to use technology to reduce our use of paper, moving more of our processes and communication online. We will examine the amount of printing and copying and reduce. With our dining services, we will explore composting.

Procurement: We are now purchasing paper that has 100% recycled content for copying. We will expand the percentage of products that are "green". We will continue to use "cradle to grave" sustainable products, like carpeting that has recycled elements and is recyclable at the end of its life cycle. We will engage in a mail initiative to reduce the amount of unwanted mail that comes to the campus.

Sustainable Nutrition: We signed a 10 year contract with Chartwells, our food vendor that incorporated sustainable practices and goals including using “green” service ware, local sourcing, and recycling. We will implement those practices and goals.

Education and Outreach: We will continue our education and outreach efforts through a website, ‘green” events and other means. We will increase student, faculty, and staff engagement. We will increase the number of courses we offer that have an environmental focus. Our faculty will continue the important research they are doing on environmental topics.

5. History of Sustainability at Queens College (2004-07)

Queens College began a number of sustainability practices during the period 2004 through 2007. We began participation in the peak load management program with Con Ed. Upon request, we decrease our power use on certain summer days of peak demand of electricity. This program reduces energy load on our buildings. We have purchased only Energy Star rated air conditioners. We began replacing inefficient window units with split air conditioning systems. In the 1990s, we had installed light sensors in all of our offices and classrooms. We continued to maintain those sensors and they are operational.

Beginning in 2005, we purchased electric utility vehicles for use on campus in the place of gas-powered vehicles for on-campus use. By 2007, we had purchased 10 electric vehicles. They are used for a variety of campus purposes, including security patrols, transportation of mail and maintenance equipment, and performance of grounds work.

Our custodial staff began using “green” cleaning products and paper products in 2004. In 2004, we began replacing worn carpeting with carpeting containing recycled product and sustainable materials. This carpet can be recycled when it needs to be replaced. The paint that we use is water soluble and the dyes are green-certified. Over the years, the percentage of products that were “green” steadily increased.

We recycled our cooking oil, computers, and yard waste.

We encouraged electronic communication by standardizing on one email system, creating a campus electronic announcement system called “QC mailer”, and installing plasma screens across the campus for announcements.

As a college, our faculty engaged in research to understand the processes in the environment and to recognize the impact we have on it. Examples include studying the impact of the World Trade Center clean-up on worker health and examining the effect of increased CO₂ concentration on plant growths. Our Center for the Biology of Natural Systems focuses on urban environmental problems. Our School for Earth and Environmental Studies prepares students for careers in environmental science.

6.1 Action Plan for Energy

Short-Term Goals

Goal	Replace inefficient and obsolete air compressors with efficient ones in four campus buildings
Timeline	2007 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Save energy, water and cost by updating obsolete and inefficient air compressors • Metrics for Success: Air compressors installed. Decrease energy use • Baseline: Number of air compressors installed. • Current Practice: Most buildings on campus have obsolete air compressors or vacuum pumps • Costs & Funding: Capital funds administered by CUNY. • Implementing Agents: B&G, CUNY;lanoco Inc.
Actions to be taken	<ul style="list-style-type: none"> • Review submitted proposals and accept • Survey and assess needs of campus buildings • Replace compressors in Rosenthal, Remsen, Klapper and New Science Building
Goal	Increase efficiency of air conditioners
Timeline	2007-2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Save money, save energy and reduce emissions by making the use of air conditioners more efficient. • Metrics of Success: Increase in # of split systems; decrease in wall units; decreased energy • Baseline: Number of air conditioners replaced with split systems. • Current Practice: Current window units are air conditioners are inefficient and are used in inefficient ways • Costs & Funding: Campus funds • Implementing Agents: B&G;
Actions to be taken	<ul style="list-style-type: none"> • Continue to replace individual air conditioning units with more efficient split systems

Goal	Plant 145 additional trees on campus
Timeline	2008 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Plant trees as part of Million Trees NYC to help the environment, improve health and save money • Metrics of Success: Trees planted. • Baseline: Current number of trees. • Current Practice: Campus has ample space for additional trees • Costs & Funding: No cost but labor costs. • Implementing Agents: B&G, CUNY, & Million Trees NYC
Actions to be taken	<ul style="list-style-type: none"> • Order 145 trees • Plant trees around campus

Goal	Build Remsen Annex as energy efficient building
Timeline	2007 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Build science-oriented building with updated technology and building systems in order to save energy, reduce costs and reduce emissions. • Metrics of Success New building that is energy efficient. • Baseline: No building currently exists • Current Practice: No building currently exists • Costs & Funding: Capital funds \$35 million • Implementing Agents: DASNY; Jacobs; Mitchell Giurgola; Campus Facilities.
Actions to be taken	<ul style="list-style-type: none"> • Install new efficient chillers • Install new efficient water pumps and distribution pumps • Establish Total Building Management System • Install fume hoods with automatic sash closers

Goal	Build the Summit residence hall as LEED Silver building
Timeline	2008 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Build a sustainable residence that achieves LEED Silver certification through low emissions and energy efficiency • Metrics of Success: Summit is built and is LEEDs Silver eligible • Baseline: No sustainable on-campus housing currently exists • Current Practice: No sustainable on-campus housing currently exists • Costs & Funding: HDC bond repaid from operating revenues • Implementing Agents: Capstone Development and Design Collective, Inc.; Goshow Architects; College and CUNY staff.
Actions to be taken	<ul style="list-style-type: none"> • Sign contract with Capstone to design LEED Silver student residence. • Include prefabricated steel stud panelized load-bearing wall system • Incorporate materials with high-recycled content • Use paints, adhesives and composite wood products with no added urea formaldehyde • Install low-flow faucets and shower heads • Install occupancy sensors to control HVAC system • Use bi-level lighting in the stair towers • Install Energy Star rated appliances

Goal	Update 2006 Energy Feasibility Study on Science Building
Timeline	2007-2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Determine energy inefficiencies in Science Building and the best efficiency measures to implement in order to save money and energy and reduce emissions • Metrics of Success: Study is completed. • Baseline: Outdated study. • Current Practice: Study from 2006 is outdated • Costs & Funding: Capital Funds \$250,000. • Implementing Agents: DASNY; Genesys Engineering, P.C.; CUNY; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Sign contract with Genesys • Assess various mechanical systems, windows, walls and other aspects of the building for inefficiencies • Determine necessary efficiency measures and update study

Goal	Undertake preliminary steps to install solar electric systems on CEP1, CEP2 and Music Building
Timeline	2007 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Conduct feasibility study and apply for funding to install solar electrical systems on three campus buildings • Metrics of Success: Feasibility study completed. • Baseline: No feasibility study. • Current Practice: No funding available and knowledge lacking as to the feasibility of solar electric systems • Costs & Funding: CEP funds • Implementing Agents: ReLab, Johnson Controls
Actions to be taken	<ul style="list-style-type: none"> • Conduct solar feasibility study and compile report on findings • Conduct economic analysis of proposed project • Undertake roof walk to verify favorable roof conditions • Write grant proposal for project

Intermediate-Term Goals

Goal	Reduce digital signage electricity consumption
Timeline	2009 – 2015
Goal Summary	<ul style="list-style-type: none"> • Objective: Minimize the power used by legacy digital signage by upgrading new signage and added signage to LED • Metrics of Success: Reduced electrical consumption • Baseline: Percentage of plasma signage • Current Practice: Use a mixture of LCD and plasma boards • Costs & Funding: Campus funds • Implementing Agents: OCT, B&G
Actions to be taken	<ul style="list-style-type: none"> • As LCDs come to end of life, replace with LED or low efficiency monitors • Select purchase and install best solution • Set policies to turn off plasmas after midnight until 7 am • Determine energy savings • Publicize results

Goal	Conduct energy audit of campus
Timeline	January – February 2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Determine buildings, facilities, systems that can be made more energy efficient through a comprehensive energy assessment • Metrics for Success: Identification of areas that could be made more energy efficient and recommendations on how to implement. • Baseline: No current audit. • Current Practice: Lack of knowledge as to how efficient campus facilities are • Costs & Funding: Capital funds administered by CUNY. • Implementing Agents: B&G, Campus Facilities, CUNY, O'Brien & Gere
Actions to be taken	<ul style="list-style-type: none"> • Hire engineering firm O'Brien & Gere to undertake energy audit • Share information with staff as to how facilities currently function • Examine recent electricity, fossil fuel, water and building energy consumption • Assess functioning of all campus equipment • Combine data with data from all prior studies • Submit report

Goal	Reduce power consumption used by hand dryers on campus
Timeline	2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Replace 20% of older hand dryers with “Green” electrical hand dryers • Metrics for Success: Reduced power consumption. • Baseline: Number of older hand dryers. • Current Practice: Older hand-dryers use more energy than “green” electric hand dryers. • Costs & Funding: Campus funds. • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Purchase hand dryers • Install.

Goal	Replace inefficient walk-in refrigerators in Dining Hall
Timeline	2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase efficiency, lower emissions and save money by replacing old refrigerators with new ones containing high efficiency compressors, environmentally friendly refrigerant and proper insulation • Metrics for Success: Refrigerators are replaced and energy is saved. • Baseline: Current refrigerators condition. • Current Practice: Current refrigerators use “due-to-expire” refrigerant, lack insulation and are inefficient • Metrics for Success: Costs & Funding: AEA; \$60,000 • Implementing Agents: AEA, Director of Dining Services.
Actions to be taken	<ul style="list-style-type: none"> • Obtain new high efficiency refrigerators • Replace old refrigerators

Goal	Reduce electrical demands of printers
Timeline	2011-15
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce overall printing • Metrics of Success: Reduced printer electricity consumption, reduced toner/paper use. Reduce individual printers to less than 5% of current printer operation. • Baseline: 300 printers • Current Practice: College allows individual printers • Costs & Funding: Use current individual printer budget and redirect to department printers. • Implementing Agents: OCT, Purchasing, Sustainability Council
Actions to be taken	<ul style="list-style-type: none"> • Change printer distribution policy • Purchase departmental printers and set up with PIN codes or Active directory login to provide secure printing • Select, purchase and install best solution • Conduct educational campaign for staff/faculty about importance/advantages of reduced printing

Goal	Design upgrade Kupferberg Art Center complex (Colden, Goldstein, Music Building, Godwin-Turner) with energy-savings and other sustainable elements
Timeline	2007 – 2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Ensure design incorporates energy efficiency and other sustainable elements. • Metrics of Success: Design completed and incorporates energy efficiency and other sustainable elements. • Baseline: No design. • Current Practice: Current buildings are energy inefficient. • Costs & Funding: Capital Funds and philanthropy. \$515,000. • Implementing Agents: DASNY; CUNY; WASA; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Select architectural firm. • Identify funding; set priorities based on current funding. • Ensure design meets above goal.

Goal	Upgrade Kupferberg Art Center complex (Colden, Goldstein, Music Building, Godwin-Turner) incorporating energy-savings and other sustainable elements
Timeline	2010 – 12
Goal Summary	<ul style="list-style-type: none"> • Objective: Ensure design incorporates energy efficiency and other sustainable elements. • Metrics of Success: Design completed and incorporates energy efficiency and other sustainable elements. • Baseline: No design. • Current Practice: Current buildings are energy inefficient. • Costs & Funding: Capital Funds and philanthropy. \$19 million. Complex upgraded; energy usage declines; other sustainable elements present. • Implementing Agents: DASNY; CUNY; WASA; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Select contractor and begin construction. • Identify funding to complete the project; set priorities based on current funding. • Publicize the sustainability elements of the project.

Goal	Assess functionality of current boilers/current chiller in Student Union and design replacements
Timeline	2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Ascertain potential for energy savings and efficiency by assessing current boilers/chillers and design more efficient replacements. • Metrics of Success: Completed study. • Baseline: No Study. • Current Practice: Current boilers/chillers inefficient; Lack of knowledge of best replacement • Costs & Funding: Capital Funds • Metrics of Success: • Implementing Agents: DASNY; Director of Student Union; Lazardos
Actions to be taken	<ul style="list-style-type: none"> • Select firm to do assessment and design • Undertake study.

Goal	Replace inefficient boilers chillers in Student Union
Timeline	2010 – 2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase efficiency, lower emissions and save money by replacing inefficient boilers with natural gas-run boilers and by replacing old chiller with new high efficiency chiller and using up to date refrigerant • Metrics of Success: Boiler and chillers replaced; energy usage declines. • Baseline: Current boilers/chillers performance. • Current Practice: Current boilers use #4 oil which harms the environment; Current chiller is 50 years old and leaks 15 percent refrigerant which is bad for the atmosphere • Costs & Funding: Capital Funds \$2million • Implementing Agents: DASNY; Director of Student Union; Lazardos; contractor
Actions to be taken	<ul style="list-style-type: none"> • Obtain energy efficient boilers • Obtain new high efficiency chiller and refrigerant • Replace old boilers with new ones

Goal	Install solar electric systems on CEP1, CEP2 and Music Building
Timeline	2010 – 2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Install solar systems to reduce cost, create onsite renewable energy project to be integrated into curriculum and reduce emissions • Metrics of Success: Grant awarded and systems installed. • Baseline: No solar electrical systems on campus. • Current Practice: No solar electrical systems on campus • Costs & Funding: \$1 million; NYSERDA grant • Implementing Agents: NYSERDA-approved solar installer
Actions to be taken	<ul style="list-style-type: none"> • Sub-contract with NYSERDA-approved solar installer • Submit documentation to Con Edison for interconnection approval • Submit documentation to Department of Buildings for necessary permits • Put system into operation once final acceptance granted

Goal	Undertake study on converting Kiely Hall into energy efficient building
Timeline	2009-10.
Goal Summary	<ul style="list-style-type: none"> • Objective: Obtain knowledge of energy inefficiencies of Kiely Hall and potential measures to address. • Metrics of Success: Study is completed. • Baseline: No study. • Current Practice: Lack of knowledge of inefficiencies and recommendations to address. • Costs & Funding: Capital funds. \$1.5 million. • Implementing Agents: DASNY; Wendel; CUNY; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Select firm to undertake energy efficiency study • Assess various mechanical systems, windows, walls and other aspects of the building for inefficiencies • Determine specific measures that would resolve inefficiencies

Goal	Do design for upgrade of Remsen Hall with goal of LEED Silver
Timeline	2009-2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Incorporate energy savings and other sustainable elements into design for Remsen Hall upgrade. • Metrics of Success: Design complete and makes building eligible for LEED Silver. • Baseline: No study. • Current Practice: Current Remsen, a science building, is need of modernization of its labs, classrooms, and office space and an upgrade of its mechanical, electrical systems. • Costs & Funding: Capital funds; \$5 million. • Implementing Agents: DASNY; Perkin-Will; CUNY; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Select firm to do design. • Create design that is LEED Silver eligible.

Goal	Feasibility study for repair steam distribution tunnel.
Timeline	2009-2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Do study on means to repair steam distribution tunnel • Metrics of Success: Study complete. • Baseline: No study. • Current Practice: Current high-pressure steam line that delivers heat to all buildings on campus is experiencing leaks. Lack of knowledge on methods to repair. Loss of steam due to leaks is energy inefficient. • Costs & Funding: Capital funds. • Implementing Agents: CUNY, Lazardos , Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Hire engineering firm and begin work. • Write report

Goal	Assess Klapper Hall for its inefficiencies and potential efficiency measures to implement
Timeline	2009-2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Obtain knowledge of energy inefficiencies of Klapper and potential measures to address. • Metrics of Success: Study is completed. • Baseline: No study. • Current Practice: Lack of knowledge of inefficiencies • Costs & Funding: Capital Funds \$250,000 • Implementing Agents: DASNY; CUNY; Wendel; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Select firm to undertake energy efficiency study • Assess various mechanical systems, windows, walls and other aspects of the building for inefficiencies • Determine specific measures that would resolve inefficiencies

Goal	Do design for upgrade of Fitzgerald gym with goal of LEED Silver
Timeline	2009-2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Incorporate energy savings and other sustainable elements into design for Fitzgerald gym upgrade. • Metrics of Success: Design is completed and makes gym eligible for LEED Silver • Baseline: No design. • Current Practice: Lack of knowledge of inefficiencies • Costs & Funding: Capital Funds • Implementing Agents: DASNY; Sasaki, CUNY, Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Assess various mechanical systems, windows, walls and other aspects of the building for inefficiencies • Determine specific measures that would resolve inefficiencies • Incorporate sustainable elements in lighting, interior elements and all parts of design.

Long-Term Goals

Goal	Implement suggestions for energy savings in the O'Brien & Gere audit
Timeline	2010- 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: : Make suggested energy savings changes • Metrics for Success: Projects done; Decreased energy use • Baseline: No plan to implement • Costs & Funding: Capital and tax levy funds. Cost TBD • Current Practice: Lack of knowledge as to how efficient campus facilities are inefficient. • Implementing Agents: B&G, Campus Facilities, CUNY, Sustainability Council
Actions to be taken	<ul style="list-style-type: none"> • Review report; identify projects that require no additional funding and implement. • Identify projects that can be done with tax-levy funds available for preventive maintenance and give those projects high priority. • Obtain funding for projects that require more substantial resources from available state, federal sources using data from the energy assessment. • Implement projects when funding received. • Publicize results on campus.

Goal	Increase efficiency of air conditioners
Timeline	2010-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Save money, save energy and reduce emissions by making the use of air conditioners more efficient • Metrics of Success: More split systems replace window units; more efficient use of window units by campus community. Decrease in energy use. • Baseline: Percentage of air conditioners that are split systems. • Current Practice: Current air conditioners are inefficient and are used in inefficient ways • Costs & Funding: Campus funds • Implementing Agents: B&G; Council on Sustainability
Actions to be taken	<ul style="list-style-type: none"> • Continue to replace individual air conditioning units with more efficient split systems • Manage indoor air temperatures based on occupancy • Establish education campaign on the efficient use of window units

Goal	Repair damaged and inefficient HVAC system
Timeline	2010-2014
Goal Summary	<ul style="list-style-type: none"> • Objective: Save money, save energy and reduce emissions by improving the functionality of steam traps. • Metrics of Success: Number of steam traps repaired. Decrease in energy costs. • Baseline: Number of steam traps needing repairs. • Current Practice: Many steam traps are stuck open and therefore malfunctioning. • Costs & Funding: Campus funds; TBD • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Identify funds • Conduct inventory of all steam traps • Test steam traps' functionality • Fix broken steam traps

Goal	Upgrade Remsen Hall to LEED Silver standard
Timeline	2011 – 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Make Remsen Hall energy efficient according to LEED Silver standards; incorporate other sustainability goals in design to meet LEED Silver eligible. • Metrics of Success: Funds obtained; Remsen upgraded and certified LEED Silver • Baseline: Current Remsen and its performance. • Current Practice: Current Remsen, a science building, is need of modernization of its labs, classrooms, and office space and an upgrade of its mechanical, electrical systems • Costs & Funding: Capital funds; \$63 million • Implementing Agents: DASNY; Perkins Will; Contractor; CUNY; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Obtain funds; hire contractor • Reduce water usage • Undertake construction using recycled materials • Establish Total Building Management System • Balance use of outdoor and indoor lighting • Upgrade mechanical equipment to more efficient models • Improve drainage and water retention systems • Recycle demolition materials • Use building materials that are made close to construction site • Recycle unused building materials • Publicize the sustainability elements of the project

Goal	Convert Kiely Hall to energy efficient building
Timeline	2013 – 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase efficiency of Kiely by implementing recommendations of study to reduce costs and emissions and save energy • Metrics of Success: Funds obtained and upgrade completed. • Baseline: Current condition of building. • Current Practice: Currently it is a highly inefficient building • Costs & Funding: Capital Funds \$23.5 million • Implementing Agents: DASNY; CUNY; Contractor; Wendell; Campus Facilities.
Actions to be taken	<ul style="list-style-type: none"> • Obtain funding for the project • Select architect and contractor. • Replace old windows with high efficiency Window and Insulated Panel System • Incorporate Building Integrated Photovoltaic System into Window/Panel system • Replace unit Ventilators with High Efficiency Water Source Heat Pumps • Replace Air Handling Units with High Efficiency Units • Install high efficiency windows • Provide central cooling to parts of building • Install High Reflectivity Roof • Establish Building Management System • Publicize the sustainability elements of the project

Goal	Convert Klapper Hall to energy efficient building
Timeline	2013 – 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase efficiency of Klapper by implementing recommendations of study to reduce costs and emissions and save energy • Metrics of Success: Obtain funds, upgrade building and decrease energy use. • Baseline: Current building performance. • Current Practice: Building is highly inefficient. • Costs & Funding: Capital funds • Implementing Agents: DASNY; CUNY; contractor; Campus Facilities.
Actions to be taken	<ul style="list-style-type: none"> • Obtain funds to do the project. • Select architect and contractor. • Install new high efficiency cooling equipment • Implement Building Management System • Implement weatherization measures, sealing all cracks and air penetrations • Install high efficiency roof • Publicize the sustainability elements of the project

Goal	Convert Science Building to energy efficient building
Timeline	2011 –
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase efficiency and modernize HVAC of Science Building by implementing recommendations of updated Energy Feasibility Study for Science Building to reduce costs and emissions and save energy • Metrics for Success: Science Building upgraded and energy usage decreases. • Baseline: Present condition of Science Building. • Current Practice: Science Building is highly inefficient • Costs & Funding: Capital Funds; \$23.5 million. • Implementing Agents: DASNY; Genesys Engineering, P.C.; contractor; CUNY; Campus Facilities.
Actions to be taken	<ul style="list-style-type: none"> • Select architect and contractor. • Reduce number of air changes per hour in parts of the building • Retrofit vertical sash bench hoods with low flow, high efficiency horizontal sliding sash bench hoods • Upgrade air handling units in parts of the building to VAV and implement economizer cycle • Replace two 650 ton electric chillers with two high efficiency variable frequency drive electric chillers • Install variable speed drives on chilled water pumps and hot water pumps • Replace badly corroded 4000 gpm cooling towers with 2600 gpm variable speed cooling tower • Replace cold room AC unit with high efficiency split AC unit • Replace incandescent lamps in mechanical equipment rooms with compact florescent lamps • Replace 10,000 sq. ft roof on Quad C with green roof • Publicize the sustainability elements of the project

Goal	Upgrade Fitzgerald Gym to LEED Silver
Timeline	2011 – 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Make Fitzgerald gym energy efficient according to LEED Silver standards; incorporate other sustainability goals in design to meet LEED Silver eligible. • Metrics for Success: Gym built; energy usage decreased. • Baseline: Current condition of Fitzgerald gym • Current Practice: Fitzgerald is inefficient • Costs & Funding: Capital Funds. \$70 million. • Implementing Agents: DASNY; CUNY; contractor; Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Upgraded mechanical and electrical systems and flooring • Asbestos abatement • Establish Building Management System • Publicize the sustainability elements of the project..

Goal	Server Virtualization
Timeline	2012-15
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce servers, reduce power consumption, reduce maintenance costs • Metrics of Success: Save energy, reduce room cooling. Potential to reduce greenhouse gas emissions by 219 tons • Baseline: Number of on-campus servers • Current Practice: Only test environments are virtualized. • Costs & Funding: Campus funds; \$300,000 estimated. • Implementing Agents: OCT and VMWare experts
Actions to be taken	<ul style="list-style-type: none"> • Expansion of storage area network • Plan and design of project • Inventory of current application/elimination of applications replaced by CUNYFirst • Migration of applications to VMWare instances through a serial and parallel process. • Publicize the sustainability elements of the project.

6.2 Action Plan for Water Conservation

Intermediate-Term Goals

Goal	Replace 20% of existing toilets with low-consumption units
Timeline	2007 - 2012
Goal Summary	<ul style="list-style-type: none"> • Objectives: Reduce water consumption. • Metrics for Success: • Baseline: Number of toilets on campus • Current Practice: 10% are water-savings. • Costs & Funding: Campus funds • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Research available products and determine campus standard. • Research to determine locations with the greatest impact. • Request funding. • Purchase selected systems • Determine installation: in-house or outsourced • Schedule installation

Goal	Replace 20% of units with waterless units
Timeline	2012-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce water consumption and the production of sewage by installing water-less urinals in selected location. • Metrics for Success: Reduced water consumption • Baseline: Number of urinals on campus • Current Practice: One unit is waterless • Costs & Funding: Campus funds • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Research available products & determine campus standard • Analyze cost/labor/benefits to determine best choice • Obtain funding • Purchase • Determine whether to do in-house/outsource • Do installation

Goal	Replace all plumbing fixtures with water-saving unit.
Timeline	2009-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce water consumption by installing water-efficient toilet flushes and sensor activated sink faucets. • Metrics for Success: Reduced water consumption • Baseline: Number of sinks, urinals/toilets on campus. • Current Practice: About 20% in place. • Costs & Funding: Campus funds • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Research available products & determine campus standard. • Conduct analysis of labor/cost/benefits • Request funding • Purchase selected systems. • Determine installation: in-house/outsource • Do installation.

Goal	Replace on built in water coolers with “green” models.
Timeline	2011-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce water consumption. • Metrics for Success: Reduced water consumption and produced. • Baseline: Number of water coolers on campus • Current Practice: No units on campus are “green” • Costs & Funding: Campus funds • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Research available products & determine campus standard. • Conduct analysis of labor/cost/benefits • Request funding • Purchase selected systems. • Determine installation: in-house/outsource • Do installation.

Goal	Capture & Reuse “greywater” for non-potable purposes to reduce water consumption
Timeline	2012-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Identify opportunities to capture and reuse ‘greywater’ (generated from domestic processes such as dish washing, laundry and bathing) for non-potable purposes (toilet flushing, irrigation) in order to reduce water consumption and lower utility bills • Current Practice: No “greywater” is currently captured or reused on campus • Costs & Funding: Conduct cost-benefit analysis of project and secure funding • Implementing Agents: Water systems consultant / Plumbing partner
Actions to be taken	<ul style="list-style-type: none"> • Conduct a water stream analysis to determine opportunities for capturing greywater (how is it currently disposed of? does it share pipes with “blackwater” (sewage)?) • Determine how “greywater” sources can be separated / captured and where necessary stored • Determine how much “greywater” can be captured and the water consumption savings made as a result • Conduct an analysis of the health & environmental risks posed by storing the “greywater” (can it be stored safely? for how long? will treatment be necessary if it is stored?) • Engage external consultants where necessary • Design a system for capturing / storing / treating and re-using ‘greywater’ across campus or within a particular facility • Select partner(s) to install the system • Monitor level of re-used water over time to assess changes in consumption and monetary savings • Share results / success with CUNY community

6. 3 Action Plan for Alternative Transportation

Short-Term and Long-Term Goal

Goal	Ascertain potential for increasing alternative transportation options
Timeline	2007-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Conduct survey of current use of alternative transportation and interest in others. • Metrics for Success: Knowledge of commuter practices. • Baseline: Lack of knowledge of current commuter practices and interests in alternative transportation possibilities • Current Practice: No survey conducted. • Costs & Funding: Grants for research • Implementing Agents: Faculty
Actions to be taken	<ul style="list-style-type: none"> • Conduct survey to assess campus alternative transportation potential

Short –Term Goal

Goal	Reduce emissions through alternative transportation options
Timeline	2007 – 2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase alternative transportation options • Metrics for Success: Greater amount of alternative transportations • Baseline: Current alternative transportation options • Current Practice: No car-sharing vendor, fewer bike racks, car pools arranged by individuals. • Costs & Funding: Tax-levy; Capstone. • Implementing Agents: Zip-Car; Capstone; Public safety; Sustainability Council
Actions to be taken	<ul style="list-style-type: none"> • Increase amount of electric and hybrid vehicles in campus fleet. • Provide space for two Zip cars (car-sharing service) • Increase bicycle accommodation by 70 percent • Establish carpool website (Commuter-Link)

Long-Term Goal

Goal	Increase alternative transportation use
Timeline	2010-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase use of alternative transportation • Metrics for Success: Increase use of bicycles increased in percentage of electric/hybrid vehicles in campus fleet; increased carpooling by staff; increase # of hybrids/electric vehicles used by staff; increased use of public transportation. • Baseline: Information from yearly surveys; • Current Practice: Modest use of alternative transportation. • Costs & Funding: Campus funds • Implementing Agents: Council on Sustainability; Campus Facilities; MTA
Actions to be taken	<ul style="list-style-type: none"> • Education on the impact of using alternative transportation • Increase bicycle accommodation. • Any new vehicle purchased either electric/hybrid. • Lobby MTA for better public transportation services. • Create parking incentives for electric/hybrid vehicles

Goal	Reduce travel to and from the campus by faculty/students/staff
Timeline	2009 – 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce travel to reduce greenhouse gas emissions. • Metrics for Success: Reduced travel. • Baseline: Few online classes; no video conferencing so travel required to attend meetings. • Current Practice: Few online classes; no video conferencing so travel required to attend meetings. • Costs & Funding: Campus funds; CUNY funds to develop video conferencing capacity intra- university. • Implementing Agents: Provost/Chairs; OCT; CUNY Sustainability Council
Actions to be taken	<ul style="list-style-type: none"> • Continue to develop online courses or hybrid courses. • Obtain funding source for video-conferencing. • Identify best solution and install.

6.4 Action Plan for Recycling/Source Reduction

Short-Term Goals

Goal	Recycle paper, cardboard, bottles, cans
Timeline	2007-09
Goal Summary	<ul style="list-style-type: none"> • Objective: Recycle paper, cardboard, bottles, cans. • Metrics for Success: Reports received on amount recycled. • Baseline: Until February 2007, no program in place because Dept of Sanitation did not come on campus and difficulty of separating waste going off-campus in one truck, • Costs & Funding: Royal Waste assumes cost and provides payment to College for amount recycled over certain levels • Current Practice: Very little recycling • Implementing Agents: B&G and Royal Waste Management
Actions to be taken	<ul style="list-style-type: none"> • Identify an outside vendor for recycling & sign contract. • Distribute recycling containers campus-wide • Train B&G personnel and staff to separate recyclables from trash • Publicize results

Goal	Recycle metal
Timeline	2007-09
Goal Summary	<ul style="list-style-type: none"> • Objective: Recycle metal . • Metrics for Success: Reports received on amount recycled • Baseline: No metal recycled • Costs & Funding: S&A assumes cost and provides payment to College for amount recycled over certain levels • Current Practice: Metal not recycled • Implementing Agents: B&G and S&A Trucking
Actions to be taken	<ul style="list-style-type: none"> • Identify an outside vendor for recycling & sign contract. • Train B&G personnel to separate recyclables from trash • Publicize results.

Intermediate-Term Goals

Goal	Reduce Paper Consumption
Timeline	2009-2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce the quantity of paper used by faculty, staff and students through technology and awareness. • Metrics for Success: Less paper purchased by college • Baseline: Estimation/calculation of paper used in copiers and printers on campus • Costs & Funding: Staff man hours to record and monitor office supply purchases. Campus funds • Current Practice: Few controls used on paper consumption • Implementing Agents: Purchasing Department and Department Chairs and Supervisors.
Actions to be taken	<ul style="list-style-type: none"> • Calculate dollar amount of office products purchased per year, determine how much of total is recycled. • (Total purchase orders for office supplies and review orders for amount recycled) • Only order 100% recycled white copy paper. • Order recycled toner cartridges that yield double copies of most toners • Our office supply vendor on-line catalogue offers recycled products where available (when a recycled product • is available block those that are not recycled) • Track department's office supply orders • Monitor dollar amount of recycled office products ordered • Share results/success with CUNY community

Goal	Reduce College Mail
Timeline	2009-2011
Goal Summary	<ul style="list-style-type: none"> • Objective: Reduce the quantity of mail the College receives • Metrics for Success: Less paper wasted and man hours saved • Baseline: Calculate the amount of mail the College presently receives and handles on an annual basis • Current Practice: No controls are in place regarding mail received and handled • Costs & Funding: Staff man hours to record and monitor mail, technology system to assist with this project • Implementing Agents: Mailroom, Purchasing Department •
Actions to be taken	<ul style="list-style-type: none"> • Calculate quantity of regular mail and magazines/catalogues handled by college mailroom • Compile list of current employees • Have departments verify legitimate mail • Remove names from mailing lists of wanted mail • Partner with organization to help reduce unwanted mail • Obtain software to match college's address with commercial mailers to route mail correctly • Monitor reduction of mail • Share results/success with CUNY community

Long-Term Goals

Goal	Replace all paper towel dispensers with metered units or with “Green” electrical hand dryers.
Timeline	2007 - 2017
Goal Summary:	<ul style="list-style-type: none"> • Objective: Reduce paper consumption and the production of waste by installing metered units or hand dryers on campus • Metrics for Success: Reduced paper consumption and waste production. • Baseline: Number of paper towel dispensers on campus. • Current Practice: Only 10 of all units on campus are metered. • Costs & Funding: Secure funding to for replacement project. • Implementing Agents: QC/B&G
Actions to be taken:	<ul style="list-style-type: none"> • Research available products and determine campus standard. • Determine if locations have adequate power. • Request funding. • Purchase selected systems • Determine installation: in-house or outsourced • Schedule installation

Goal	Increase the percentage of total waste recycled
Timeline	January 2010-December 2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase percentage of waste recycled . • Metrics for Success: Reports received on amount recycled • Baseline: We recycle about 18% of all waste produced. • Costs & Funding: Vendors assume cost and provides payment to College for amount recycled over certain levels. • Current Practice: Recycling is done but could be increased. • Implementing Agents: B&G and vendors, staff and students
Actions to be taken	<ul style="list-style-type: none"> • Increase number of containers on campus • Implement plastic bag recycling program with student support. • Implement “reuse” program in student residence for move-out day • Education campaign; recruit supporters. • Monitor conduct of staff, students for compliance with recycling program

Goal	Continue to increase use of technology to become “paperless”
Timeline	2007-2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Use online processes and communication rather than paper. • Metrics for Success: Most business processes migrated over to online processes not paper. Increased use of Blackboard to post assignments and accept assignments. Question: will there be a corresponding increase in electrical consumption? Increase number of online courses. • Baseline: Number of paper processes. Number of classes using Blackboard; number of online or hybrid courses. • Current Practice: We have eliminated a number of paper processes but need full implementation of CUNYFirst to increase. Our faculty is using Blackboard. Issue of reliability of service needs to improve for greater use. We offer some online courses • Costs & Funding: Campus funds; capital funds for CUNYFirst. Savings can be achieved and redirected to other initiatives. • Implementing Agents: Business offices, Academic departments, OCT, CUNY, Sustainability Council
Actions to be taken	<ul style="list-style-type: none"> • Electronic bills replace paper billing • Eliminate hard copies of course catalogues • Create strong intranet and make primary means of communicating with staff/faculty. • Online work order system replaces paper work order system. • “Pay for Print” initiative • Implement CUNYFirst modules in purchasing, accounts payable, human resources, campus solutions and eliminate to extent possible paper transactions and reports. • Improve reliability and stability of Blackboard and encourage use. • Continue to create “smart classrooms”. • Make full use of digital tools to deliver education • Evaluate any change for impact on energy use

6.5 Action Plan for Procurement

Short-Term Goals

Goal	Purchase organic fertilizers and herbicides
Timeline	2007-2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Purchase organic fertilizers and herbicides • Metrics for Success: Amount purchased. • Baseline: None were used. • Current Practice: None were purchased. • Costs & Funding: Campus funds • Implementing Agents: B&G
Actions to be taken	<ul style="list-style-type: none"> • Identify a product. • Purchase and use the product • Publicized the results.

Goal	Purchase copy paper with recycled content.
Timeline	2007-2009
Goal Summary	<ul style="list-style-type: none"> • Objective: Purchase copy paper with recycled content. • Metrics for Success: Amount of paper purchased and % of recycled content of the paper. • Baseline: Paper purchases did not have recycled content. • Current Practice: Paper purchases did not have recycled content. • Costs & Funding: Campus funds. • Implementing Agents: Purchasing and OCT
Actions to be taken	<ul style="list-style-type: none"> • Identify product • Purchase and use the product • Publicize the results.

Intermediate-Term Goal

Goal	Increase purchases of recycled office products
Timeline	2009 - 2010
Goal Summary	<ul style="list-style-type: none"> • Objective: Objective: Increase the quantity of recycled office products the College purchases. • Metrics for Success: Less unrecycled waste produced • Baseline: Calculate the quantity of copy paper, office supplies, and toner cartridges on an annual basis. • Current Practice: Some controls are used on purchasing recycled office supplies. • Costs & Funding: Staff man hours to record and monitor office supply purchases. Campus funds • Implementing Agents: Purchasing Department and Department Chairs and Supervisors
Actions to be taken	<ul style="list-style-type: none"> • Calculate dollar amount of office products purchased per year; determine how much of total is recycled. • (Total purchase orders for office supplies and review orders for amount recycled) • Only order 100% recycled white copy paper. • Order recycled toner cartridges that yield double copies of most toners • Our office supply vendor on-line catalogue offers recycled products where available (when a recycled product • is available block those that are not recycle • Track department's office supply orders • Monitor dollar amount of recycled office products ordered • Share results/success with CUNY community

Long-Term Goal

Goal	Continue to use sustainable materials in all renovation projects
Timeline	2009 – 17
Goal Summary	<ul style="list-style-type: none"> • Objective: Continue to use sustainable materials in all renovation projects • Metrics for Success: All renovation done using “cradle to grave” materials; increase in amount of rooms/spaces with “green” materials. • Baseline: Upgrades done where Green carpet installed; paint dyes that are “green-certified; furniture from manufacturers that have trade farms which replace trees used. • Current Practice: All renovations use sustainable materials. • Costs & Funding: Campus funds; capital funds. • Implementing Agents; B&G, Campus Facilities
Actions to be taken	<ul style="list-style-type: none"> • Set the policy of using only sustainable materials in renovation projects. • Continue to research vendors & products with the goal of ensuring the products are sustainable. • Do all renovations/refurbishments with those products.

6.6 Action Plan for Sustainable Nutrition

Short-Term Goals

Goal	Bring food vendor to campus with a sustainability commitment
Timeline	2007 – 08
Goal Summary	<ul style="list-style-type: none"> • Objective: Signed contract with Chartwells • Metrics for Success: Binding contract language • Baseline: Old contract • Current Practice: Old contract • Costs & Funding: Time of committee members. • Implementing Agents: Food Service Committee, Chartwells
Actions to be taken	<ul style="list-style-type: none"> • Issue RFP for contract that has sustainability obligations for the vendor • Conduct interviews with candidates • Sign 10-year contract

Goal	Begin implementation of Chartwells' sustainability plan
Timeline	2008 –09
Goal Summary	<ul style="list-style-type: none"> • Objective: Implement preliminary sustainability measures • Metrics for Success: Successful implementation of preliminary steps • Baseline: Sustainability measures of the old contract • Current Practice: Sustainability measures from new contract not implemented. • Costs & Funding: Chartwells revenues • Implementing Agents: AEA, Chartwells
Actions to be taken	<ul style="list-style-type: none"> • Work with Tri-State Biodiesel to recycle kitchen oil • Display nutritional information on food servings • Label organic foods • Bring local "Farmers Market" to campus • Use CHAMMPS to reduce amount of vendor deliveries, saving gas • Purchase food from local vendors

Intermediate-Term Goal

Goal	Continue implementation of Chartwells' sustainability plan
Timeline	2009 – 2012
Goal Summary	<ul style="list-style-type: none"> • Objective: Continue to implement sustainability measures • Metrics for Success: Successful continuation of sustainability measures • Baseline: Preliminary sustainability measures • Current Practice: Preliminary sustainability measures • Costs & Funding: Chartwell's revenues. • Implementing Agents: AEA, Chartwells
Actions to be taken	<ul style="list-style-type: none"> • Recycle food waste from kitchens (& cafeterias) and educate all concerned on policy and procedure • Eliminate Styrofoam and non-compostable plastics from cafeterias (knives, forks, plates & other utensils / clam shells / drinking cups) • Incentivize the purchase and continued use of reusable utensils such as coffee mugs • Increase percentage of food procured from local vendors • Introduce composting plan; monitor amount of waste composted • Eliminate bottled water • Expand "Farmers Market" option • 100% use of biodegradable service ware • 100% use of post-consumer recycled products • Purchase food and supplies in bulk when possible • Monitor and record weekly amount of consumer waste

Long-Term Goal

Goal	Accomplish advanced level of sustainability
Timeline	2012 -2017
Goal Summary	<ul style="list-style-type: none"> • Objective: Build on Chartwells sustainable contract • Metrics for Success: Successful expansion of the contract's sustainability measures • Baseline: Chartwells' contract goals • Current Practice: Sustainability measures implemented but more could be done. • Costs & Funding: Chartwells' revenues • Implementing Agents: Chartwells & AEA
Actions to be taken	<ul style="list-style-type: none"> • Establish community garden on campus • Purchase majority of food from local vendors • Further reduce the percentage of waste produced and not recycled/composted

6.7 Action Plan for Sustainable Education and Outreach

Short-Term Goal

Goal	Increase awareness of Queens College commitment to Sustainability
Timeline	2007-09
Goal Summary	<ul style="list-style-type: none"> • Objective: Make college aware of Queens College commitment to sustainability • Metrics for Success: Increased awareness. • Current Practice: Lack of awareness. • Costs & Funding: Campus funds • Implementing Agents: Council on Sustainability
Actions to be taken	<ul style="list-style-type: none"> • Establish Council on Sustainability with broad representation • Create logo • Announce to campus through mailer • Take out ad in local paper • Launch Suggestion Campaign and award tote bag with logo to those making suggestions. • Create press kit • Host "Green Summit" at the College.

Intermediate-Term Goal

Goal	Create Sustainability website
Timeline	2009-12
Goal Summary	<ul style="list-style-type: none"> • Objective: Make college aware of Queens College commitment to sustainability • Metrics for Success: Increased awareness. • Current Practice: Lack of awareness. • Costs & Funding: Campus funds • Implementing Agents: Council on Sustainability
Actions to be taken	<ul style="list-style-type: none"> • Appoint subcommittee • Design web page • Keep content updated..

Long-Term Goal

Goal	Create a campus culture of sustainability
Timeline	2009-17
Goal Summary	<ul style="list-style-type: none"> • Objective: Increase our educational programs and research in environmental science, environmentally related-student activities and strengthen level of campus engagement on sustainability issues. Become model for community. • Metrics for Success: More courses, more students pursuing those courses and related majors; more research; more campus engagement; more grants for environmentally related research. • Current Practice: Currently we have educational programs in environmental science and faculty is engaging in important research. CEP has offered courses on solar system installation. Increased investment in our earth and environmental science program is called for in our Strategic Plan. We have student engagement through clubs and membership on Sustainability Council. • Costs & Funding: Campus funds; grants for research. • Implementing Agents: Faculty, students, Sustainability Council.
Actions to be taken	<ul style="list-style-type: none"> • Include as a goal in Strategic Plan • Create Sustainability Council. • Student life and student clubs generate environmentally-related activities. • Grants obtained for environmentally related research and that research takes place. • Offer more courses on environmentally-related topics. • Events/lectures offered on the topic • Multiple communication venues used to publicize efforts. • Encourage staff/faculty/students to engage in sustainable practices by providing suggestions and measures of behavior. • Publicize our activities internally and externally.