

Sustainable CUNY

Campus Sustainability
10 Year Plan

KINGSBOROUGH COMMUNITY COLLEGE

Revised February 1, 2016



1. Campus Mission Statement-

Kingsborough Community College, located on a spectacular waterfront campus, is the only comprehensive community college in Brooklyn. It has earned national recognition for the large number of associate's degrees it confers, the high percentage of graduates who continue their studies, and the innovative programs that attract more than 40,000 students a year in credit, non-credit, workforce development and community service programs. In 2013, Kingsborough Community College was tapped as the third best community college in the country by the Aspen Institute, a leading philanthropic think tank.

Kingsborough offers students the opportunity to prepare for transfer to a four-year institution or the ability to develop skills necessary for immediate entry into the workforce-- or both. Nursing, allied health, maritime technology, graphic arts, tourism and hospitality and the new criminal justice curriculum provide students with opportunities for long-term career advancement. Students can opt to begin preparation for eventual doctoral study by working alongside a noted faculty astrophysicist or research biologist.

Kingsborough Community College (KCC) is dedicated to meeting Mayor Michael Bloomberg's sustainability challenge to reduce greenhouse gases by 30% in 10 years by 2017. KCC is focusing its efforts on the seven pillars of this plan which include energy, water, transportation, recycling, procurement, nutrition, and education and community outreach. The college has been proactive on sustainability issues for many years. As far back as 1991 Kingsborough partnered with New York Power Authority to convert street lighting to energy saving lights.

Kingsborough has taken a leadership role in building high-quality programs and services that support the economic growth of Brooklyn and New York City. The Kingsborough Center for Economic and Workforce Development has received nearly \$5 million in grants to train workers for the local market. The Center's "Project Welcome," funded by the U.S. Department of Labor, is the only community-based job-training program in the country focused on the tourism and hospitality industry. To encourage and support small-business development, enterprise courses have been created to enable budding entrepreneurs to use Kingsborough's facilities to test products for market. In addition, the college recently opened a New Americans Center to assist the community's large immigrant population.

The array and quality of offerings, the excellence of the faculty and the extensive student-support services contribute to a student-centered learning environment for the traditional student as well as the non-traditional adult learner. Kingsborough graduates will enter the workforce or continue

their education well-prepared for the challenges of the future. Kingsborough is "the college that works for you!"

2. Campus Description and Scope –

Kingsborough Community College is located in Manhattan Beach, on the southern tip of Brooklyn, New York. The College building area is 1,294,021 square feet (gross) and 813,276 square feet (net). There are 20 buildings on campus with a relative age of 40 years for our temporary structures and 35 years for the main buildings with the exception of our Marine and Academic Center, which was opened in 1991 and our Academic Village which opened in 2002.

The campus is located on a 70-acre peninsula (3,036,348 square feet) in the Manhattan Beach section of Brooklyn. Approximately 55% of the total acreage is landscaped and 25% of the site is paved. The footprint of the various buildings occupies about 20% of the site. The campus also contains a 10,000 square foot marina and a 2-acre (90,000 square foot) beach. The Leon M. Goldstein High School for the Sciences, owned by the NYC Department of Education, is also located on the campus grounds.

Typically, the permanent buildings are steel framed, with metal stud and gypsum wall board interior walls, reinforced concrete floors, with face brick and concrete block exterior cavity walls. Construction, which predates the NYS Energy Code, is devoid of exterior wall insulation. The buildings range from 1 to 8 stories in height.

The temporary buildings are typically steel framed, with metal stud and gypsum wall board interior walls, with insulated exterior corrugated metal panel walls. These buildings range from 1 to 2 stories in height.

There are 27 parking lots throughout the campus with 1,355 parking stalls (52 of which are reserved for the handicapped). An off-site parking area near the campus offers the College an additional 1,006 parking spaces during the Fall, Winter and Spring Semesters.

Founded in 1963, the College serves approximately forty thousand students per year, offering a wide range of credit and non-credit courses in the liberal arts, career education, as well as a number of specialized programs.

KCC serves a widely diverse student population and ranks among the top community colleges in the country in associate degrees awarded to minority students.

Surrounded by water on three sides (the Atlantic Ocean, Jamaica Bay, and Sheepshead Bay), Kingsborough enjoys a natural setting which adds to our unique characteristics as a CUNY Community College. Some of our unique physical characteristics include:

- A College Marina that is the home of the college's Maritime Technology Program.
- Two gymnasiums and an indoor pool.
- The 743-seat Leon M. Goldstein Performing Arts Center and the 298-seat Playhouse.
- A 1,600 square foot Art Gallery.
- An Aquarium.
- The Marine and Academic Center includes The Rotunda which is a 12,000 square foot conference/event facility, numerous classrooms, computer labs.
- The Robert J. Kibbee Library and Media Center, contains over 150,000 items.
- Eighteen general purpose instructional computer labs with more than 500 work stations and approximately 200 computer work stations in specialized instructional facilities
- A computerized testing facility with more than 150 stations.
- The Leon M. Goldstein High School for Sciences and Math which is New York City Department of Education High School with a capacity to educate 800 students per semester.
- An Urban Farm that is an organic, year-round food production site

3. Council Members and Partners

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4. Plan Summary -

The KCC Campus Sustainability 10 Year Plan is a high priority project with many segments of our community contributing to its success. The Campus Sustainability 10 Year Plan was designed around seven key pillars to develop strategies and actionable steps to become more sustainable: Energy, Water, Transportation, Procurement, Recycling, Sustainable Education and Outreach, and Sustainable Nutrition. KBCB is committed to becoming more energy efficient, reduce energy usage, institutionalize energy awareness that addresses the behavioral changes of students and faculty, and subsequently reduce Green House Gas (GHG) emissions that can improve our environment.

5. History of Sustainability on Campus –

To date, KCC has had success implementing the following programs and projects in each of the seven key pillars:

Energy

As early as 1991, KCC partnered with New York Power Authority by changing the outside lighting poles from mercury vapor to high pressure sodium bulbs. This cut energy usage by 75% (400 watt bulbs were replaced with 100 watt bulbs).

Light fixtures were retrofitted to T-8 florescent bulbs from T-12 bulbs. In addition, reflective shields were put in so that two lamps were needed rather than four per fixture.

Incandescent bulbs were replaced with compact florescent and occupancy sensors were installed. To date the college continues to install occupancy sensors in smaller rooms and office on campus.

All electric motors on campus that are above 5 horsepower were replaced with high efficiency motors.

In the A & S Science Lab S157, where indirect T – 8 florescent fixtures were installed to replace 400 watt metal halide bulbs which were used as indirect lighting.

Our Central Heating Plant was completely replaced with new boilers and equipment, and fuel tanks were converted from #6 fuel oil to much a cleaner #2 fuel oil.

Energy efficient roofs were installed on the gym and Central Heating Plant.

Air conditioning units were replaced in the T3 and T4 buildings with energy efficient units to meet new building codes.

In the Physical Education Building, (G Building), all windows in the pool area were replaced with insulated glass, and the College installed a pool blanket which is used during off hours to prevent heat from escaping.

The college replaced single paned windows throughout T-2 with double insulated glass.

A new Marine Academic Center roof was installed with additional insulation.

Water

To save water, KCC converted old plumbing fixtures in many buildings including the Leon M. Goldstein Performing Art Center, and the “T” buildings.

Buildings and Grounds Office established an immediate response program for any water leaks reported on campus.

KCC purchased low volume, auto toilet flushers and installed them in high volume bathrooms.

Transportation

Free bus service is provided for students, faculty and staff to and from local subway stations.

KCC purchased its first college hybrid vehicle on state contract.

The College purchased a flex-fuel truck.

Procurement

The College purchases Green Seal cleaning products and recycled paper.

New hand dryers were installed in campus restrooms, which will reduce the amount of paper toweling needed

Recycling

Our cafeteria has made significant changes by eliminating all Styrofoam service ware. In addition we implemented a bottle deposit/bottle return program for all recyclable beverage bottles sold in the cafeteria.

Between 2009 and 2017 KCC plans to double the amount of collected recyclable paper, plastic, metal and glass. By expanding our participation in a recycling program, KCC expects to save approximately 1200 trees each year, 592 cu. ft. of landfill and 518,000 gallons of water.

Electronic equipment, fluorescent bulbs, ballasts and batteries are recycled per the NYSDEC regulations.

Sustainable Education and Outreach

KCC hosts an Annual Eco-festival on campus. The festival is held over a four-day period and educates students, faculty and staff on environmental issues, and sustainable environments. Additionally the festival aims to raise ecological literacy, foster civic and global citizenship as well as promote grassroots environmental action steps and stewardship.

A Green Boat was donated to campus. KCC's Marine Technology Program established a "Green Boat Program" which is used to recycle cooking oil and train students. The boat is used on the weekends by volunteer high school students to clean Jamaica Bay of garbage.

The college collaborated with the New York City Department of Parks and Recreation to plant 200 trees on our 70 acres campus.

Sustainable Nutrition

KCC has an Urban Farm that is an organic, year-round food production site. We grow a wide variety of vegetables, herbs and flowers, compost food scraps from the Culinary Arts Program, and host tastings, events, courses and class visits. The Farm provides students with urban farming expertise and first-hand experience building a more sustainable food system. Our goals are to prepare students for careers in the rapidly expanding local food economy, build a greater understanding of food systems through growing fresh fruits and vegetables, and to educate students on the benefits of leading healthy lifestyles.

6. Action Plan by Pillar Area – Table of Action Plans

Energy Goals

E1	Reduce Computer Electricity Consumption
E2	Apply Window Film to U112 – Faculty & Staff Dining Room
E3	Make Modifications to conserve energy in HVAC System and Lighting in T-2 and T-4 Buildings
E4	Upgrade Window AC Units to Energy Star Rated Units
E5	Consolidate Servers/systems
E6	Reduce energy usage
E7	Design and Install New Central Plant for Heating and Air Conditioning
E8	Install Photocell Lighting Controls in all corridors with windows

Water Goals

W1	Renovate Restrooms in the Leon M Goldstein Performing Arts Center to conserve water
W2	Develop Immediate Response Program to Reported Water Leaks and as a result update College Facilities to Enhance KCC's Water Savings
W3	Renovate T 2 & T 4 Building Bathrooms and T 4 Laboratory to conserve water

Transportation Goals

T1	Increase free, continuous, yellow bus service during peak class hours between two key Metropolitan Transit Authority subway stations and campus
T2	Increase the number of students/staff/faculty who use bicycles to travel to and within KCC campus
T3	Increase fleet use of clean & alternative fuels
T4	Replace 60% of existing fleet with clean fuel technology vehicles
T5	Explore the possibility of purchasing hybrid buses and/or electric shuttle buses to replace school buses used to shuttle students to local subway stations. If feasible, proceed with purchase

Recycling Goals

R1	Install paper, plastic can and battery recycling points throughout campus
R2	Recycle vegetable oil in the Green Boat
R3	Recycle an estimated one ton of plastics and cans
R4	Recycle an estimated 20 tons of cardboard
R5	Recycle an estimated 32 tons of paper
R6	Recycle an estimated one half ton of batters
R7	Require College Food Service to Implement the New York State Bottled Beverage Recycling Bill

Procurement Goals

P1	100% conversion of computer screens from CRT's to LCD's
P2	Convert College Paper Supply to 30% recycled content paper for copy and print
P3	Manage purchase orders by using EPS system online
P4	Revamp printing methods to possibly use 100% recyclable paper, limiting single sided printing and relocate some public printing stations
P5	Enhance internal purchasing practices with environmentally preferred practices
P6	Purchase green products

Sustainable Nutrition Goals

N1	Enhance cafeteria services through updated equipment, facilities and inspections
N2	Improve food service vendor's methods of purchasing and preparing foods
N3	Reduce and/or eliminate environmentally unfriendly service ware
N4	Research available grants for the establishment of a college garden, on-campus green market, and additional student/staff education
N5	Require food service to establish a recipe file for college to retain on file. Ensure recipes healthy
N6	Better serve the College Community by increasing our knowledge and offerings of sustainable food by utilizing the services of a specialist
N7	Improve cafeteria and campus services as related to sustainability

Sustainability Outreach and Education Goals

SE&O 1	Survey and educate College Community on Sustainable Nutrition
SE&O2	Involve NYC Department of Education students in Sustainability Efforts through Campus Leadership Programs
SE&O3	Introduce and reinforce the important message to all incoming students and current students
SE&O4	Inform faculty and staff of on-campus available sustainability opportunities and information sustainability practices
SE&O5	Communicate with our student population by utilizing technology to follow good sustainability practices
SE&O6	Establish KBCC website on sustainability featuring Eco -fest
SE&O7	Integrate Sustainability Theme into Curriculum
SE&O8	Create service learning experiences for students on the Green Boat

6. Action Plan by Pillar Area

6.1 Energy

Short-Term Goals (enacted since June 2007 or to be completed by end of 2009)

Goal E1	Reduce Computer Electricity Consumption - Achieved
Timeline	Jan 2009 – Dec 2009
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Minimize the amount of electricity consumed by idle computers through automated controls and best practices ▪ Metrics for Success: Reduced hourly computer electricity consumption ▪ Baseline: Estimation / Calculation of current kWh consumption ▪ Current Practice: No controls to reduce electricity consumption of idle computers remotely ▪ Implementing Agents: Students / Staff / Faculty and IT solutions partner
Actions to be taken	<ul style="list-style-type: none"> ▪ Estimate current daily kWh consumption by campus computers (KW per unit x number of units x average hours used per day) ▪ Assess existing technology solutions for remote control of idle computers ▪ Select, purchase and install best solution ▪ Conduct education campaign for students/ staff / faculty regarding switching off idle computers ▪ Compare daily energy consumption patterns after 1 year to determine impact and savings ▪ Share results / success with CUNY community

Goal E2	Apply Window Film to U112 – Faculty & Staff Dining Room – Completed
Timeline	Jan 2009 – Dec 2009
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: To minimize cost of cooling and heating ▪ Metrics for Success: Film applied to windows with highest potential to reduce energy usage ▪ Costs & Funding: Operational Budget ▪ Implementing Agents: Department of Finance and Administration
Actions to be taken	<ul style="list-style-type: none"> ▪ College created work schedule ▪ Applied Film

Intermediate Goals (1-5 years)

Goal E3	Make modification to conserve energy in HVAC System and Lighting in T-2 and T-4 Buildings - Ongoing
Timeline	2007 – 2012
Goal Summary	A study conducted by EME Group to look at energy consumption in the T-2 and T-4 buildings. The study was funded by the NYC Department of Citywide Administrative Services
Actions to be taken	<ul style="list-style-type: none"> ▪ Conduct Energy Audit ▪ Forward Energy Audit to CUNY ▪ Request funds from NYC ▪ Awaiting receipt of funds from NYC for T-4 building and modifications (\$56,600) ▪ Partial Funding for T-2 building modifications has been received ▪ KCC has applied for a NYSERDA Grant (RFP 1613 American Recovery and Reinvestment Act) – Awaiting Response ▪ If awarded NYSERDA Grant will be applied to both T-2 and T-4 buildings ▪ Additional funding will be sought from National Grid

Goal E4	Upgrade Window AC units to Energy Star Rated Units – Ongoing
Timeline	March 2010 – March 2011
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Phased project to reduce electricity consumption by replacing unusable window AC units with more energy efficient models
Actions to be taken	<ul style="list-style-type: none"> ▪ Research marketplace for Energy Star Rated window AC units (models / pricing/ specifications) and select best model(s) ▪ Determine total costs for units ▪ Determine total cost of installation ▪ Schedule phased replacement of units in line with timeline

Goal E5	Consolidate servers / systems
Timeline	2010 – 2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Replace physical servers with virtual servers. KCC currently has 30 virtual servers and will increase this number to 40 ▪ Switch physical servers that cannot be virtualized to blade server technology. KCC currently has 20 servers. We intend to increase this number to 32 ▪ Replace the existing high consumption switches on Extreme Green rated switches in IDF closets. We intend to replace 26 IDF switches ▪ Will use LCD monitors instead of CRT monitors ▪ Upgrade data center cooling system ▪ Switch to more efficient computing technology ▪ Practice aggressive asset management ▪ Implement desk virtualization using thin clients ▪ Procure Power management software to shutdown computers, etc. ▪ Use power management features for computers (sleep/standby) ▪ Purchase Energy Star or EPEAT rated equipment (PCs/printers/copiers/AC units) ▪ Complete conversion of all classrooms to smart classrooms ▪ Replace and return old copiers with more energy efficient copiers ▪ Actively monitor the lifecycle of IT assets

Long-Term Goals (5-10 years)

Goal E6	Reduce energy usage – Ongoing
Timeline	June 2007 - December 2017
Goal Summary	<ul style="list-style-type: none"> ▪ Objective – Obtain a comprehensive picture of KCC Campus energy use and create opportunities for improved efficiency and savings ▪ Implementing agents – New York Power Authority , National Grid
Actions to be taken	<ul style="list-style-type: none"> ▪ Join Peak Load Program – Renewable Annually – Now participating 12 months per year (previously a Summer Program) ▪ Change lighting in labs in sections of Arts & Sciences building – Completed ▪ Install occupancy sensors campus-wide – Ongoing ▪ Install solar panel on Marine and Academic Center (M Building) Roof – Completed ▪ Replace roof and skylights on T8 Building – Completed ▪ Replace Library Roof to meet current building codes – Ongoing (Projected Completion Date October 2010)

Goal E7	Design and Install New Central Plant for Heating and Air Conditioning – IN PROGRESS
Timeline	January 2010 – December 2013
Goal Summary	<ul style="list-style-type: none"> ▪ Objective – Replace obsolete heating plant with new energy efficient equipment ▪ Costs & Funding - \$8,264,046 ▪ Implementing Agents – New York State Dormitory Authority and Genesys Engineering (consultants)
Actions to be taken	<ul style="list-style-type: none"> ▪ 2009 – Conduct Feasibility Study ▪ Recommended Solution – Medium Temperature Hot Water Boiler Best Solution for KCC Heating Demands ▪ 2010 – Design Phase Begins ▪ October 2010 – Review of Design Plans by Kingsborough Community College CUNY and NYS Dormitory Authority ▪ Prepare Biddable Documents ▪ Establish Formal Bid ▪ Award Contract ▪ Commission Equipment ▪ Installation and Completion

Goal E8	Install Photocell Lighting Controls in all Corridors with windows
Timeline	January 2012 – December 2017
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Reduce electricity use in window lighted corridors <p>Current Practice: Normal college lighting system which is time set</p> <p>Costs & Funding : Photocells will be purchased with Operation Budget Funds</p> <p>Implementing Agents: Office of Buildings and Grounds</p>
Actions to be taken	<ul style="list-style-type: none"> ▪ Identify corridors with windows ▪ Purchase photocells ▪ Install photocells

6.2 Water

Short-Term Goals (enacted since June 2007 or to be completed by end of 2009)

Intermediate Goals (-5 years)

Goal W1	<ul style="list-style-type: none"> ▪ Renovate restrooms in the Leon M. Goldstein Performing Arts Center to conserve water – Completed
Timeline	2009 – 2010
Actions to be taken	<ul style="list-style-type: none"> ▪ Install new low flow self-flush flushometers in ladies and men’s rooms in Performing Arts Center restrooms ▪ Installation of occupancy sensors ▪ Installation of touch-less, low flow faucets in restrooms

Long-Term Goals (5-10 years)

Goal W2	Develop Immediate Response Program to Reported Water Leaks and as a result update College Facilities to Enhance KCC’s Water Savings – IN PROGRESS
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Prevent water and unnecessary water consumption by fixing existing leaks and establishing a program to maintain plumbing fixtures throughout campus ▪ Metrics for Success – Reduce Water consumption and lower utility bills by immediately responding to calls rather than processing through normal work orders
Timeline	2007 – 2017
Actions to be taken	<ul style="list-style-type: none"> ▪ Complaint received by Buildings and Grounds Office ▪ Call is dispatched to Plumbers ▪ Work is immediately assigned ▪ Plumber creates and completes work ticket once job is finished

Goal W3	<ul style="list-style-type: none"> ▪ Renovate T2 - & T4 Building Bathrooms and T4 Laboratory to conserve water
Timeline	2010 - 2011
Actions to be taken	<ul style="list-style-type: none"> ▪ Install new low flow self-flush - flushometers in ladies and men’s rooms in T2 and T4 Buildings ▪ Install touch-less, low flow faucets ▪ Installation of occupancy sensors ▪ Installation of touch-less low flow faucets in T-4 Allied Health Laboratory

6.3 Transportation

Short-Term Goals (enacted since June 2007 or to be completed by end of 2009)

Goal T1	Increase free continuous yellow bus service during peak class hours between three key Metropolitan Transit Authority subway stations and campus – ACHIEVED
Timeline	2007 – 2009
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Add two additional yellow school buses to provide easy, faster access for students/faculty and staff using the MTA Subway system to travel to campus
Actions to be taken	<ul style="list-style-type: none"> ▪ Establish free yellow bus routes to and from campus from the Brighton Beach Subway Station, Sheepshead Bay Subway Station and Coney Island Subway Station ▪ Buses will drop riders off on campus at the Shimoda Traffic Circle ▪ Riders must show identification to be permitted on bus ▪ Display information messages on college reader boards informing student of shuttle service

Intermediate Goals (1-5 years) (2010-2012)

Goal T2	Increase the number of students/staff/faculty who use bicycles to travel to and within the KCC Campus
Timeline	March 2009 – March 2011
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Encourage the use of bicycles as a means of getting to campus and to various building locations by installing bike racks and like equipment to accommodate cyclists ▪ Metrics for success: Increase the number of people using bikes as a means of transportation traveling to and from campus as well as on campus ▪ Baseline: Existing number of bike racks on campus is 27 which accommodate 87 bikes ▪ Implementing Agents: NYC Department of Transportation: New York Police Department and KCC
Actions to be taken	<ul style="list-style-type: none"> ▪ Promote bicycle usage as an option to new students faculty/staff members via open houses/seminars/web site ▪ Distribution of literature regarding traveling via clean air options ▪ Add 5 Bike racks on campus which will increase the total number of bike slots to 107 ▪ In accordance with NYC DOT, design on-campus bike lanes that will enable bicyclists to travel safely throughout campus ▪ Work with NYPD to offer bicyclists the opportunity to have bikes etched with a security code for additional protection of their bikes ▪ Public safety officer will perform exterior patrols by augmenting the current vehicle patrol with bicycle patrols

Long-Term Goals (5-10 years) (2012-2017)

Goal T3	Increase fleet use of clean and alternative fuels – ONGOING
Timeline	2009 – 2017
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Reduce the campus’ mobile source GHG emissions by increasing the amount of clean & alternative fuels used by campus fleet ▪ Implementing Agents: Fleet Manager / Task Force Fleet Committee
Actions to be taken	<ul style="list-style-type: none"> ▪ Assess current fuel usages and determine how much alternative fuel will be needed to meet target ▪ Determine which vehicles are best suited to adopt alternative fuels ▪ Determine availability of alternative fuels ▪ Determine if engine retrofits are required to adopt the use of certain alternative fuels

Goal T4	Replace 60% of existing fleet with clean fuel technology vehicles
Timeline	By 2017
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Reduce the campus’ mobile source GHG emissions by replacing 60% of the current vehicle fleet with clean fuel technology vehicles by 2017 ▪ Costs & Funding: Conduct Cost-benefit analysis and secure funding ▪ Implementing Agents: Fleet Manager / Task Force Fleet Committee
Actions to be taken	<ul style="list-style-type: none"> ▪ Survey existing fleet and determine timeline for phased replacement of identified vehicles ▪ Survey and monitor marketplace for alternative technology vehicles, including biofuel vehicles hybrid fuel-electric vehicles and plug-in electric vehicles ▪ Consult Task Force Fleet Committee as needed ▪ Determine purchase and maintenance costs of selected vehicles ▪ Conduct cost-benefit analysis for each replacement and secure funding ▪ Address logistics of fuel supply and vehicle recharge ▪ Monitor changes in fuel consumption levels ▪ Monitor maintenance costs of new vehicles ▪ Purchase Segway’s for interior and exterior patrol to reduce the need for automobiles to conduct exterior patrols ▪ Increase Public Safety’s Bike Patrol Program to reduce the need for automobiles to conduct exterior patrols ▪ Continue to properly maintain current fleet operation to enable our vehicles to run efficiently

Goal T5	Explore the possibility of purchasing hybrid buses and /or electric shuttle buses to replace existing school buses used to shuttle students to local subway stations, and if feasible, proceed with purchase
Timeline	2010-2017
Goal Summary	<ul style="list-style-type: none"> ▪ Objective; To promote clearer air, and improve the safety of passengers
Actions to be taken	<ul style="list-style-type: none"> ▪ Research the marketplace for hybrid buses ▪ Establish specifications needed for vehicles ▪ Determine feasibility of owned vs. leased vehicles ▪ Research the possibility of piggybacking purchase off a large purchase by another city agency ▪ Explore the possibility of purchasing vehicles through requirement contracts ▪ Secure funds ▪ Initiate paperwork to establish a bid ▪ Award bid within same fiscal year

6.4 Recycling

Short-Term Goals (enacted since June 2007 or to be completed by end of 2009)

Goal R1	Install paper, plastic, can and battery recycling points throughout campus – ACHIEVED
Timeline	June 2008 – December 2009
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Reduce solid landfill & incinerator waste generated by campus by introducing recycling collection bins for a range of recyclable materials ▪ Metrics for Success: Installation and use of recycling bins ▪ Current Practice: Paper is recycled in offices ▪ Costs & Funding: Purchase of recycling bins / cost of collection & removal ▪ Implementing Agents: Office of Buildings and Grounds
Actions to be taken	<ul style="list-style-type: none"> ▪ Purchase recycling bins for bottles, cans , plastics and install them in various public areas on campus including main cafeteria and satellite cafeteria locations

Intermediate Goals (1-5 years)

Goal R2	Recycle vegetable oil in the Green Boat – ONGOING
Timeline	2009 – 2010
Goal Summary	<ul style="list-style-type: none"> ▪ Objectives: Save money by not having to purchase fuel for training vessel ▪ Metrics for success – Calculate dollars saved by not having to purchase fuel to run the Boat ▪ Cost & Funding - \$4,000.00 for vessel conversion, Perkins Grant \$19,000.00 to pay Captains to operate vessel with volunteer students on weekends. NOAA Grant
Actions to be taken	<ul style="list-style-type: none"> ▪ Arrange with college food service to receive used cooking oil to fuel Green Boat

Goal R3	Recycle an estimated one ton of plastics and cans – ONGOING
Timeline	January 2009 – December 2012
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Reduce solid landfill & incinerator waste generated by campus by one ton ▪ Metrics for Success : Quarterly Reports from Royal Recycling Solutions ▪ Implementing Agents: Office of Buildings and Grounds, Environmental Health & Safety Officer, Panda House (on-campus food service) and Royal Recycling Solutions
Actions to be taken	<ul style="list-style-type: none"> ▪ Share target with campus community and engage students, staff and faculty to participate in the initiative ▪ Monitor quarterly Royal Recycling Solution Reports and share results / success with CUNY community

Goal R4	Recycle estimated 20 tons of cardboard – ONGOING
Timeline	January 2009 – December 2012
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Save approximately 500 trees ▪ Implementing Agents: Royal Recycling Solutions
Actions to be taken	<ul style="list-style-type: none"> ▪ Share target with campus community and engage students, staff and faculty to participate in the initiative ▪ Monitor quarterly Royal Recycling Solution Reports and share results / success with CUNY community

Goal R5	Recycle estimated 32 tons of paper – ONGOING
Timeline	January 2009 – December 2012
Goal Summary	<ul style="list-style-type: none"> ▪ Objective: Save approximately 800 trees ▪ Implementing Agents: Royal Recycling Solutions
Actions to be taken	<ul style="list-style-type: none"> ▪ Share target with campus community and engage students, staff and faculty to participate in the initiative ▪ Monitor quarterly Royal Recycling Solution Reports and share results / success with CUNY community

Goal R6	Recycle estimated one half ton of batteries - ONGOING
Timeline	January 2009 – December 2012
Goal Summary	<ul style="list-style-type: none"> ▪ Implementing Agents: Royal Recycling Solutions
Actions to be taken	<ul style="list-style-type: none"> ▪ Share target with campus community and engage students, staff and faculty to participate in the initiative ▪ Monitor quarterly Royal Recycling Solution Reports and share results / success with CUNY community

Goal R7	Require college food service to implement New York State’s Bottled Beverage Recycling Bill
Timeline	2010 – 2011
Goal Summary	<ul style="list-style-type: none"> ▪ Implementing Agents: Panda House : KCC student clubs
Actions to be taken	<ul style="list-style-type: none"> ▪ Food Service currently collects five cent deposit from customers for each beverage container purchased. However, it does not currently accept returns or provide refunds ▪ To increase recycling determine best method for the collection of returned bottles ▪ Consider the usage of bottle return vending machines and, if acceptable, install machines ▪ Offer student clubs the opportunity to collect return deposit bottles on campus (only) to utilize refund money collected for student club activities

6.5 Procurement

Short-Term Goals

Goal P1	100% conversion of computer screens from CRTs to LCDs
Timeline	June 2007 to September 2010
Actions to be taken	<ul style="list-style-type: none"> ▪ Replace LCDs with efficient Plasma Screens

Goal P2	Convert College Paper Supply to 30% recycled content paper for copy and print
Timeline	2007 to 2009
Actions to be taken	<ul style="list-style-type: none"> ▪ Purchase 30% recyclable paper

Goal P3	Manage purchase orders by using EPS system online - ONGOING
Timeline	2007 – 2017
Actions to be taken	<ul style="list-style-type: none"> ▪ College community utilizes e-procurement to manage purchase orders online and reduce the use of paper

Goal P4	Revamp printing methods to include possibly using 100% recyclable paper, limiting single sided printing and relocate some public printing stations
Timeline	2010-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Investigate the possibility of using 100% recyclable paper. This goal may be inhibited by our physical location near an ocean with high humidity ▪ Replace single printing machines with power efficient multi-function printers ▪ Use recyclable HP toners and recycled papers ▪ Centralize printing in the library to decrease the amount of equipment usage ▪ Mandate double-sided printing ▪ Encourage the use of multi-function machines instead of separate printers and FAX machines

Goal P5	Enhance internal purchasing practices with environmentally preferred practices
Timeline	2010 -2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Devise a pilot program to test green products ▪ Set over-arching green procurement targets ▪ Purchase items which have a take-back program to promote environmentally ▪ Adopt policy of purchasing items certified by organizations such as EPEAT, Energy Star, etc. ▪ Devise green purchasing policy for most frequently bought items

	<ul style="list-style-type: none"> ▪ Only buy “Energy Star” computers, monitors and printers ▪ Include environmental standards in IT procurement policies
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Long Term Goal

Goal P6	Purchase green products – ONGOING
Timeline	2007 – 2017
Actions to be taken	<ul style="list-style-type: none"> ▪ Use green sealed products for cleaning

6.6 Sustainable Nutrition

Short-Term Goals (enacted Since June 2007 or to be completed by end of 2009)

Goal N1	Enhance cafeteria services through updated equipment, facilities & inspections – ACHIEVED
Timeline	2007-2010
Actions to be taken	<ul style="list-style-type: none"> ▪ Purchase an energy efficient pizza oven and pot washer for campus main cafeteria kitchen ▪ Increase frequency of inspections to improve cleanliness ▪ Create a satellite food service station in the T-8 Building ▪ Introduce a water filtration system to campus to eliminate plastic bottles on campus and offer students free , cold, filtered water

Goal N2	Improve food service vendor’s methods of purchasing ad preparing foods
Timeline	2007-2012 Ongoing
Actions to be taken	<ul style="list-style-type: none"> ▪ Eliminate saturated and trans fats from food preparation and vending machine offerings ▪ Reduce the amount of sodium and sugar used in cafeteria prepared foods ▪ Introduce locally grown fresh fruits and vegetables on campus ▪ Include real fruit juice as a selection in all cold beverage vending machines ▪ Diversify and increase the kosher and hallal food offerings in the cafeteria’s “Grab N Go” refrigerated showcase ▪ Add prepackaged salads to “Grab N Go” showcase ▪ Add two rows of healthy snack choices to each vending machine ▪ Add specialty breads including whole grain breads to cafeteria’s sandwich station ▪ To eliminate waste and better serve our student population, our food service vendor will offer remaining cafeteria hot food trays

	to students for free between the hours of 7 and 8 p.m. Monday through Thursday during each 12-week semester
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Intermediate Goals (1-5 years)

Goal N3	Reduce and/or eliminate environmentally unfriendly service ware – Ongoing
Timeline	2007-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Eliminate all Styrofoam products from cafeteria – Achieved ▪ Explore the possibility of replacing plastic service ware with new cardboard service items which are recyclable

Goal N4	Research available grants for the establishment of a college garden, on-campus green market and additional student staff/education
Timeline	2010-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Research available grant options ▪ Propose grant opportunities to College Food Service ▪ Determine appropriate paths for KCC ▪ Create desired plan, if grant is awarded, including needed resources ▪ Write and apply for grant

Goal N5	Require Food Service to establish a recipe file for college to retain on file. Ensure recipes are healthy
Timeline	2010 – 2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Develop format for food service to submit information ▪ Request recipe files for each station in main cafeteria ▪ Set deadline ▪ Communicate with food service ▪ Upon receipt of information, present file to college food service committee to identify culinary expert who is most qualified to review recipes and determine if food service is meeting low salt and sugar diets and if some recipes qualify as Heart Healthy Cuisine

Goal N6	Better serve the College Community by increasing our knowledge and offerings of sustainable food by utilizing the services of a specialist
Timeline	2010 – 2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Use specialists in the preparation and purchase of sustainably nutritional foods ▪ Increase the number of healthy choice/organic snacks in cafeteria and vending machines that are reasonably priced ▪ Increase the number of vegetarian selections in the cafeteria ▪ Change the existing salad bar from a self-service salad bar to a hosted salad bar ▪ Explore the possibility of having a yogurt bar open during warm weather months in the afternoon hours of operation ▪ Increase the variety of kosher and hallal foods ▪ Increase the number of steamed, poached and roasted dishes sold in the cafeteria ▪ Student Group to research the interest of the college community in having an on-campus green market. Surveys will be distributed during Fall semester 2010 ▪ Talk with Community Board No. 15 to determine community interest in campus green market

Long-Term Goals (5-10 years)

Goal N7	Improve cafeteria and campus services as related to Sustainability
Timeline	2010-2017
Actions to be taken	<ul style="list-style-type: none"> ▪ Research the methods used, cost commitment and work involved to compost on campus ▪ Reduce salt usage ▪ Sell more “real” juice in cafeteria ▪ Research “Grab N’ Go” Refrigerated items that contain less preservatives ▪ Reduce the use of plastic bags in the cafeteria ▪ Dedicate a portion of our campus (approximately ½ acre) to organic farming with student volunteers, educated and directed by college and/or off-site experts (food/herbs to be used in the cafeteria and by our student catering groups)

6.7 Sustainable Education and Outreach

Short-Term Goals (enacted since June 2007 or to be completed by end of 2009)

Goal SE&O1	Survey and educate College Community on sustainable nutrition – Achieved
Timeline	November 2008 – January 2009
Actions to be taken	<ul style="list-style-type: none"> ▪ Conduct five focus groups on campus to survey the College Community’s satisfaction with food service vendor ▪ Focus groups were organized by segments of our campus population and included: students; faculty; instructional staff; clerical staff ; blue collar & public safety personnel ▪ Feedback was recorded and vendor goals were established from feedback ▪ Tourism and Hospitality Department conducted workshops during Ecofest 2009 on Sustainable Nutrition

Intermediate Goals (1-5)

Goal SE&O2	Involve NYC Department of education students in sustainability efforts through Campus Leadership Programs
Timeline	2010-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Encourage participation through the creation of various KBCC internet website sustainability pages including Facebook, Twitter, and My Space etc. ▪ Expand participation by College Now, Leon M. Goldstein High School and the Kingsborough Early College Secondary School students ▪ Coordinate students with staff to team up on sustainability projects ▪ Create student and staff teams to participate in collecting cartridges and recyclable electronics

Goal SE&O3	Introduce and reinforce the important message of Sustainability to all incoming students and current students
Timeline	2010-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ Distribute recyclable mugs and water bottles at many student events organized under the umbrella of “Welcome Back Week” ▪ Highlight employers, who promote sustainability, at our Ecofest Training Fair Recruitment Sessions ▪ Reduce the number of cigarette butts on campus by hosting an event entitled, “Kick Butt Day” Information tables will be hosted in the college breezeway to increase awareness of the dangers of second hand smoke and reinforce the college’s “No Smoking within 25 feet of an entrance” rule ▪ Introduce a sustainability awareness/educational component as part of the college’s New Student Orientation Program which is attended by all incoming students ▪ Increase the number of students participating in the Student World Assembly Campus Cleanup Day ▪ Inform students of the location of each water filtration system dispenser located on campus and encourage students to carry personal reusable drinking cups to properly utilize dispensers. Motivate students to communicate their thoughts through blogging about certain sustainable measures taken, such as, smoking ban

Goal SE&O4	Inform faculty and staff of on campus available sustainability opportunities and information
Timeline	2010-2012
Actions to be taken	<ul style="list-style-type: none"> ▪ As part of the KBCCs Brown Bag Lunch Seminar Program, Human Resources will create a segment to educate faculty and staff on how to establish and maintain an eco-friendly work environment ▪ In addition, Human Resource will create a new program segment on Sustainability for their New Employee Orientation Program which is held each autumn ▪ Human Resources will research the cost and work involved in creating a new sustainability brochure. This brochure will be directed toward faculty and staff and will list several ways of reducing office waste

Long-Term Goals (5-10 years)

Goal SE&O5	Communicate with our student population by utilizing technology to follow good sustainability practices
Timeline	2013-2017
Actions to be taken	<ul style="list-style-type: none"> ▪ Reduce the usage of the U.S. Mail System for student communications by 75% and replace that method with current technology such as e-mail, texting, blackboard and the use of the internet community site, i.e. Facebook & My Space, etc. ▪ Reduce the use of printed books by 10% and replace printed materials with E-Books. E-Books are less expensive and will reduce the need for physical storage space

Goal SE&O 6	Establish KBCC website on sustainability featuring Ecofest- Ongoing
Timeline	January 2006 – December 2017
Goal Summary	<ul style="list-style-type: none"> ▪ A comprehensive new Eco-Festival website was designed to publicize the Annual Eco-Festival events and activities and has served as an ongoing resource center for students, faculty, staff and the external community. It is prominently posted on the KCC cover homepage (http://www.kbcc.cuny.edu/eco-festival)

Goal SE&O7	Integrate Sustainability Theme into Curriculum
Timeline	June 2007 - December 2017
Goal Summary	<ul style="list-style-type: none"> ▪ Our annual Eco-Festival largely satisfies this goal by involving students, faculty, staff and the external community in for days of educational programming centered on the environment. The Responsibility 2 Care (R2C) Program is another project unique to KCC that seeks to promote environmental awareness and stewardship and provide a platform for student involvement and engagement in keeping Kingsborough Community College Clean and sustainable
Actions to be taken	<ul style="list-style-type: none"> ▪ Serve as the primary point of student community for sustainability efforts on campus ▪ Work with Buildings and Grounds Staff to establish best practices, policies, and/or standards for sustainable projects and operation on campus, where appropriate ▪ Identify and prioritize resource conservation opportunities in offices, labs and buildings ▪ Inspire the KCC Community to reduce environmental and health impacts and assist KCC in becoming a leader amongst the CUNY campus sustainability efforts

	<ul style="list-style-type: none"> ▪ Act as representatives of the environmental movement at KCC during campus events, such as,, but no limited to, Eco-Festival, Commencement, Homecoming, KCC for a Day, CampusFest, New Student Orientations, student government activities, etc.
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Goal SE&O8	Creative service learning experiences for students on the Green Boat
Timeline	2009-2010
Goal Summary	<ul style="list-style-type: none"> ▪ Objectives – Clean campus beach and local waterways surrounding campus by conducting boat based clean-ups of floatable marine debris ▪ Metrics for Success – Develop boat handling skills for KCC students; Calculate the total number of cubic yards of trash disposed of by the end of the program ▪ Costs & Funding – \$4,000.00 for vessel conversion, Perkins Grant \$19,000.00 to pay Captains to operate vessel with volunteer students on weekends NOAA Grant
Actions to be taken	<ul style="list-style-type: none"> ▪ Students will utilize boat to clean debris from local waterways