YEAR-END REPORT AND RECOMMENDATIONS TO THE UNIVERSITY ADMINISTRATION

NEW YORK UNIVERSITY SUSTAINABILITY TASK FORCE

JUNE 1, 2007

CONTENTS

SECTION 1:
BACKGROUND ON SUSTAINABILITY

Living in New York City – the nation's most populous and most vertical city – is to some extent unavoidably eco-friendly. Most residents live in compact, multi-family and multi-story dwellings, reducing energy consumption. Millions of us take public transportation to class or to the office. City law mandates relatively strict building codes, the separation of recyclables from trash, and other measures.

And yet, in the face of mounting scientific evidence of a climate crisis and with a growing sense of responsibility to future generations, we know there is so much more that each individual and institution can do to become more sustainable. On a comprehensive institutional scale, New York University has only recently embarked on this journey, but significant progress has been made in one short year. Among these successes, NYU has made the largest-ever purchase of renewable energy by an American university, signed the President's Climate Commitment to develop a plan for net carbon neutrality, hired full-time sustainability staff, and begun to collaborate with New York as the city moves forward with its PlaNYC 2030 sustainability initiative.

We have made an excellent start, but much work remains to be done. New York University is the nation's largest private university, as well as one of the largest property owners and employers in New York City. After 175 years, NYU now enrolls some 50,000 students within its 14 schools and maintains over 15 million square feet of space in five Manhattan locations. Becoming greener will create a healthier campus, generate short- and long-term financial savings, engage the university community, and contribute to the overall safety, independence and sustainability of our city, community and planet.

The core of New York University's campus is at Washington Square in Greenwich Village, due south of the Empire State Building.

As recently as several years ago, "sustainability" was a term discussed primarily in academic and policy circles. Since then, the term has entered the mainstream of national discourse, becoming a buzzword in the popular press and capturing the imagination of a broad spectrum of society. This journey has brought inevitable soul-searching about what sustainability really means. Working to define sustainability is a way to avoid the "greenwashing" of environmentally harmful activities that may otherwise seek to claim its mantle.

Though there are many definitions of sustainability in circulation today, a few common principles seem to unite them all. The first is the conviction that meeting present needs should not compromise the ability of future generations to meet their own needs. The second is that there are limitations to nature's capacity, and these limitations must be respected, or even embraced. The third is that nothing is isolated, but rather, the world is interconnected across social, economic, and environmental boundaries.

NYU has the remarkable opportunity to contribute to sustainability on three distinct scales of impact. The first is by directly preventing or reducing the adverse environmental impacts that result from the operation of such a large institution; the scale and influence of NYU can result in extraordinarily potent actions, which can shift patterns of consumption throughout New York City more broadly.

The next means of impact is less direct, but even larger in scale: by infusing every aspect of the university's activities and operations with sustainability education, we can alter the perceptions of the thousands of students, faculty and administrators that call NYU home every year. Over the course of our lives, members of the NYU community can carry the message of sustainability far beyond the campus and city.

The third opportunity for advancing sustainability is broader yet in scale: as a major research university that is uniquely embedded in the urban fabric of New York City, NYU can not only develop resources, ideas, and practices that further university sustainability efforts; it can also export its knowledge to cities and urban centers all over the world.

Early growth of environmental commitment on campus

The launch of NYU's institutional sustainability initiative last fall has sparked a new wave of enthusiasm and dedication to "going green" – but NYU's students, faculty and administrators have worked for years to advance green causes, whether through campus activism, academic research, or innovative management of the school's physical operations.

In the 1960s, NYU demonstrated an early commitment to clean energy by building a co-generation plant underneath Warren Weaver Hall in the heart of the Washington Square campus. Co-generation is the simultaneous production of electricity and useful thermal energy, and is much more efficient than conventional energy generation. It also produces lower emissions of carbon dioxide, regulated pollutants and particulate matter. NYU's co-gen plant currently supplies electricity to seven university buildings, removing them from the city's electrical grid.

NYU established one of the city's first institutional recycling programs in 1990. Through its Recycling Shop, NYU currently recycles at least 30% of its waste stream. Bins for paper as well as cans and bottles are located throughout residence halls and academic buildings. In recent years, the program has expanded to recycle other materials, such as "techno-scrap" and printer cartridges. The Administrative Services Division has also paved the way with its early implementation of sustainable practices. Efforts of the Purchasing Department to date have included targeting Energy Star-certified equipment procurement (especially copiers, printers and personal computers), and working with CBS, NYU's janitorial contractor, to identify and implement a list of green cleaning products. Purchasing has also highlighted recycled products on the Stapleslink purchasing website, while Asset Management reduces capital equipment waste by redistributing office furniture and computers for re-use.

The academic study of environmental issues takes place throughout NYU's schools. Currently offered courses include environmental conservation education (Steinhardt), technical solutions for sustainability (ITP, Tisch), environmental policy (Wagner), environmental law and justice (Law School), environmental science, journalism, economics and design (CAS), energy and environment-related Global Affairs concentrations (SCPS), and interdisciplinary environmental concentrations (Gallatin). However, none of these provide the coordinated, comprehensive curriculum of an Environmental Studies program. Key faculty members came together in

2005 to craft a university-wide program in Environmental Studies. The full Environmental Studies program (with an undergraduate major and minor) begins this fall, ensuring that NYU's academic community will be a driving force for campus sustainability in the years to come.

Environmental Studies will be supplemented by other programs already in place on campus. Since 2000, NYU's Wallerstein Collaborative for Urban Environmental Education has offered programming to encourage New York City public school teachers to incorporate environmental education into their classroom curriculum. The Steinhardt School is also creating a new major in Food Systems, which will explore the production and distribution of food and the implications on sustainability. This major will draw upon the extensive expertise of Steinhardt's Nutrition, Food Studies and Public Health program.

As is often the case with campus movements, students have been at the forefront of environmental efforts at Washington Square. NYU students formed the Earth Matters club in 1982 and through it have been involved in campaigns for the cleanup for PCBs in Hudson Bay, the boycott of Pepsi for its support of Burma, and advocating for fair trade coffee. The Environmental Law Society helped propel the early development of the Recycling program, and was instrumental in the Student Bar Association's passage of a resolution calling for renewable energy purchasing in 2005. The Wagner Environmental Policy Action (WEPA) group has been similarly active on campus issues. Finally, a cohort of other environmental and progressive clubs – including Oxfam, Students for Education and Animal Liberation (SEAL), and the NYU Surf Club – have helped raise the profile of key sustainability challenges.

In more recent years, a student-led coalition of students, faculty and administrators, known as the Green Arch Initiative, led efforts to make sustainability an administrative priority. Green Arch was founded to develop communication between pockets of environmental advocacy across the university, to conduct research into NYU's environmental footprint, and to consider university sustainability in terms of both academic scholarship, and real-life operational practices. Green Arch helped to pave the way for an institutional sustainability initiative by building support for Environmental Studies, raising awareness among the student body, and conducting a 2006 Campus Sustainability Assessment based on a comprehensive set of data-based indicators.

Launching the Green Action Plan

On October 5, 2006, at the first University Senate meeting of the year, Executive Vice President Michael Alfano unveiled a broad sustainability initiative for the university. Underscoring the importance of environmental sustainability for our campus, community, city and world, he outlined his plan to engage the university community in becoming more sustainable through practices such as investing in renewable energy, generating clean energy, and evolving construction practices.

The signature piece of this new initiative was the purchase of 118,000,000 kilowatt-hours of wind-generated electricity in the form of Renewable Energy Credits (RECs) from Community Energy. This purchase offset enormous quantities of pollution: switching to renewable wind-generated energy was the equivalent of removing 12,000 cars from the road or planting 11 million trees. It remains the

A portion of NYU's wind power purchase is generated at the Fenner Wind Power Facility in Madison Country in upstate New York.

largest purchase of wind energy by any college or university in the United States as well as by any New York City institution and was at the time the 11th largest purchase nationally.

Another major component of Dr. Alfano's plan was the creation of a Sustainability Task Force. This university-wide group consists of representatives from all university constituencies and is co-chaired by Lynne P. Brown, Senior Vice President for University Relations and Public Affairs, and Alison Leary, Vice President for Facilities and Construction Management. The Task Force was charged with:

- Conducting a comprehensive assessment of NYU's environmental sustainability efforts;
- Recommending a prioritized plan – Green Action Plan – to improve NYU's environmental footprint and save energy;
- Engaging faculty, students and administrators in securing the successful implementation of the plan;
- And developing a method to award funds for research and demonstration programs in environmental sustainability.

To demonstrate his strong support for this effort, Dr. Alfano announced that he had allocated $250,000 to fund the Task Force and its projects each year for the next four years.

Major strides in clean and renewable energy

The sheer size of NYU's purchase of wind energy credits in October 2006 had a major impact: the significant reduction in carbon emissions, the show of commitment to renewable energy and sustainability, and the modeling of behavior for peer institutions. But the university had another significant step to take to transform its energy generation systems: its 30-year old co-generation plant was nearing retirement or overhaul in 2008.

As the plant aged, NYU was faced with either replacing it or closing it and returning it to the Con Edison grid. NYU decided to make a $120 million investment in a new plant – one that would be larger, cleaner and more efficient. This new plant will be able to power up to 30 NYU buildings; the current plant powers only seven buildings. Even while doubling overall power capacity, the new plant will emit at least 19% less carbon dioxide, 70% less NOx , 83% less SO^2, and 78% less particulate matter than the old one. These environmental benefits will be felt immediately and will positively impact NYU's surrounding area. After extensive discussion with the community about their legitimate concerns over siting and construction disruptions, local Community Board #2 unanimously approved NYU's proposal to build the new plant adjacent to the current one underneath Mercer Street. Construction is scheduled for completion in approximately 24 months.

A staff member checks the controls of NYU's co-generation plant underneath Warren Weaver Hall.

NYU has also devoted administrative resources to the task of energy management. Last summer NYU created a new full-time position to oversee its energy systems, hiring John Bradley as Assistant Vice President for Energy, Engineering and Technical Services. In this role, John will create a comprehensive energy strategy for the university and, along with the assistance of newly-hired Director of Sustainability and Energy Cecil Scheib, ensure its implementation.

SECTION 2:
THE SUSTAINABILITY TASK FORCE TAKES SHAPE

NYU's Sustainability Task Force was constituted to assess the university's environmental footprint, make recommendations to lighten that footprint, engage the NYU community in implementing a greening plan, and award funds for campus greening projects. Since its first meeting in late October 2006, the Task Force has convened to discuss sustainability issues large and small. Its roster now stands at 45 members, representing seven schools and all university constituencies (students, faculty, deans, administrators, staff and alumni).

Task Force members divided themselves into seven separate subcommittees, plus a Steering Committee to coordinate efforts:

- **Academic Initiatives:** liaising with the Environmental Studies Program; identifying relevant faculty research and school projects; planning academic activities such as conferences and speaker series
- **Campus Planning:** investigating ways to green buildings and roofs; assessing overall use of space on campus; suggesting improvements to campus landscaping and methods of landscape maintenance
- **Conservation and Recycling:** examining ideas for resource conservation and re-use within the areas of recycling, water, food, transportation, and purchasing
- **Data, Communications and Technology:** identifying, collecting, and managing baseline data; communicating relevant data across the university; developing metrics for evaluation
- **Energy Systems:** supporting the plan to replace the cogeneration plant; suggesting energy saving ideas; researching the feasibility of alternative energy sources on campus
- **Outreach and Engagement:** generating ideas to enlist and engage the NYU community and raise the visibility of sustainability on campus; propose and plan campus activities; liaise with environmental groups and partners
- **Sustainability Fund:** implementing a process for funding innovative proposals from members of the broader NYU community to "green" NYU's campus; examining best practices at other institutions
- **Steering Committee:** collaborating with co-chairs of the Task Force subcommittees on matters related to overall activities; receiving and advising on subcommittee recommendations; reporting back on subcommittee activities

Finding partners and marking early achievements

NYU has entered this process later than many schools. However, this late start has carried with it the advantage of being able to learn from other institutions' successes and challenges. Many other colleges and universities throughout the United States have spent years establishing and refining their own efforts to advance sustainability on campus. NYU was pleased to join its peer institutions in membership organizations committed to this same mission and to learn from their operational models and tested knowledge.

In January 2007, NYU joined the **Environmental Consortium of Hudson Valley Colleges and Universities**, composed of higher education institutions in the Hudson Valley region (including New York City). The Consortium serves a real need for local faculty, students, and staff to collaborate on research and academic opportunities, cooperate in enrichment activities, share best practices, and expand communication.

Task Force members attended the Consortium's conference on "Greening the Campus: Exploring Practices, Curriculum, and Management in Higher Education." In April 2007, NYU served as the host and co-sponsor of the Consortium's annual Student Summit, which brought some 60 students from local universities to NYU's campus for an afternoon of presentations and discussions about campus activities and organizing for environmental causes.

On a national level, NYU has joined the **Association for the Advancement of Sustainability in Higher Education**, the premier organization targeting sustainability in American universities. AASHE organized a conference in April 2007 on "Smart and Sustainable Campuses," cosponsored by the Environmental Protection Agency and other higher education associations; NYU sent two representatives to the conference to represent the university and network with their peers.

Support for sustainability has also called for more direct commitments from university leadership. The **American College and University President's Climate Commitment** is a pledge for participating universities to create and implement a plan to become net carbon neutral by reducing and/or offsetting all their carbon emissions. John Sexton, President of NYU, signed the pledge in February 2007, also joining the Commitment's Leadership Circle, to assist with promoting the pledge and recruiting additional signatories. Moving forward, this commitment will help shape NYU's Climate Action Plan and spur a comprehensive greenhouse gas inventory.

In recognition of its commitment to renewable energy, the Environmental Protection Agency named NYU a winner of its **Green Power Challenge** in April 2007. The competition ranked institutions within their athletic conferences based on green power purchasing. NYU's wind-generated energy purchase earned it a spot as champion of the University Athletic Association.

Jeremy Friedman (center) accepts the Green Power Challenge award on behalf of NYU from Blaine Collison (left) and Leslie Cordes (right) from the Environmental Protection Agency. NYU ranked #1 within the University Athletic Association division for its purchase of renewable energy.

Envisioning a new campus

As a university "in and of the city", the extent and composition of NYU's physical campus has always held great importance. In 2006, a major strategic planning effort was launched with the goal of ensuring that the university has a planning vision and available growth opportunities to continue our academic mission in a manner consistent with being "in and of the city" with a vision towards the milestone year of 2031, NYU's 200th Anniversary.

Over the past several months, the Office of Strategic Assessment, Planning and Design has led a rigorous search process to identify a design team with which the university can partner in preparing such a strategic plan. The selected team - SMWM with Grimshaw Architects, Toshiko Mori, and Olin Partnership -- will begin to analyze NYU's campus this summer, assessing existing conditions and identifying

growth needs. The preferred strategy will be developed over the next academic year, shared with key constituencies, and announced in spring 2008.

NYU has highlighted sustainability as a key element of its strategic plan. The design team will be asked to incorporate environmentally sustainable features (such as natural ventilation, daylighting, renewable microgeneration, storm water capture, and green roofs) wherever possible and feasible, while also considering how long-term planning can strengthen NYU's utilization of current space, transportation resources, and grounds to reduce the need for new construction.

Building administrative resources and expertise

Creating a sustainable campus requires the cooperation and coordination of a variety of different administrative units – facilities, construction, planning, student affairs, government relations, academic affairs – and at NYU there has been no single office or individual to oversee this effort.

With the creation of the Task Force, it became clear that dedicated administrative support would be required to manage and coordinate this effort. NYU has since brought on board two individuals to focus on this area. Jeremy Friedman was hired to fill the role of Project Administrator of the Sustainability Task Force. A December 2006 graduate of the Gallatin School of Individualized Study, Jeremy spent his college career developing a concentration in Environmental Values and Public Policy. He led a Gallatin student team in an independent research project to evaluate NYU's environmental footprint, culminating in an extensive report to the Task Force last winter, and in 2005 he co-founded the Green Arch Initiative, a coalition of faculty, students and administrators committed to fostering greater NYU sustainability.

A former student employee of the Recycling Shop, Jeremy brings the academic knowledge from his coursework in environmental studies, his experience as a successful student organizer, and a nuanced awareness of NYU operations, structure, and campus culture. Jeremy reports to both Alison Leary and Lynne Brown, co-chairs of the Task Force. Jeremy will continue to facilitate the work of the Task Force subcommittees, while also fostering connections between key constituencies throughout NYU, New York City, and the broader university sustainability community.

Focusing more specifically on energy and technical issues, the division of Facilities and Construction Management brought on Cecil Scheib to fill the new position of Director of Energy and Sustainability. Cecil's credentials in the field of sustainability are well-established as a co-founder and director of the Dancing Rabbit Ecovillage, a functioning demonstration laboratory in conservation and sustainability which operates entirely off-grid. As an alumnus of Stanford's civil engineering program, Cecil brings to NYU technical expertise, years of practical experience, and a passion for sustainability. Working with Assistant Vice President for Energy, Engineering and Technical Services John Bradley, Cecil will use his experience and background to provide input and technical guidance on the creation of sustainability standards and policies that can be implemented at an institutional level in the areas of energy, recycling, waste management and green building development,

among many others. Cecil will also work to develop critical connections between NYU's Facilities division and other key constituencies in the university and beyond.

Jeremy and Cecil form a key part of the team that will help establish NYU as a national leader in the field of sustainability.

nyuearthweek
clean plant learn sustain

Momentum and progress on campus

Earth Day has been celebrated on April 22 around the world for nearly 40 years. At NYU, Earth Day has been established as a "theme week" under the auspices of the Office of Student Activities. Responsibility for planning and executing a full slate of Earth Week activities was allocated to a group of student volunteers led by Earth Matters! club, with sponsorship from the Task Force, Community Service, and OGCA.

This year's **Earth Week** was celebrated with nearly 20 events running for nine days: lectures and presentations on global warming, pesticides, and practical greening tips; daily gardening projects; beach and park clean-ups; a street fair; a movie screening and a cooking class; and a clothes swap attended by over 900 people.

Earth Week's Swap-o-Rama-Rama draws in over 900 people to the Eisner & Lubin Auditorium to trade in their unwanted clothes. On-site designers and artists helped give items new life through alterations and silk-screening.

The week was promoted widely through university communications channels, helping to raise the profile of NYU's sustainability initiative and awareness of various campus resources and possibilities for community involvement.

Individual students have eagerly joined in the university's greening campaign. Stern senior Nurul Jes Izman worked on behalf of the Tree Theatre Group, a nonprofit advocacy group from her home country of Malaysia, to coordinate a campus tree-planting as part of the United Nations Environment Programme's **Billion Tree Campaign**. In the event (co-sponsored by the Sustainability Task Force and the NYU Garden Shop), a group of NYU community members and international visitors assisted with the planting of a Shadblow Serviceberry tree on May 4th, NYU's first contribution to this international effort.

Stern student Nurul Jes Izman helps plant a tree on Schwartz Plaza as part of the U.N.'s Billion Tree campaign. Izman, a native of Malaysia, coordinated the planting of the NYU tree with the Sustainability Task Force.

Administrative initiatives underway

The **Administrative Services** Division has developed an "environmental philosophy and practices" document which is guiding new initiatives in Purchasing, Asset Management and other departments. Beyond previous efforts, the Purchasing Department has begun reaching out to Shaw Carpeting to implement recycled and recyclable flooring options. Administrative Services is also migrating from its own use of recycled paper from 30% to 100% post-consumer content. Finally, Copy Central, which has been using recycled paper for more than 20 years, will soon offer 100% recycled paper to its customers.

Public Safety and **Transportation Services** have begun to investigate additional bike storage locations, and plan to target the replacement of old vehicles with new ones that have reduced environmental impacts.

Dining Services is expanding on the Weinstein Eco Grounds coffee shop by implementing a 100% Fair Trade coffee policy, and will continue considering other opportunities to bring local and organic

food to the campus. Dining Services is also receiving weekly updates about available locally-grown food from produce supplier Sid Wainer, and switching to recycled paper products for dining halls this Fall.

The **Energy Department** has entered into the "Operation Save New York" energy curtailment program, and is implementing a new metering system that will provide better data on electricity consumption. The Department is also coordinating the expansion of the campus cogeneration plant.

The **Garden Shop** has phased out synthetic chemical fertilizers and pesticides in their grounds maintenance, and NYU gardeners have already dramatically increased green space biodiversity in areas such as the Coles Sports Center, Schwartz Plaza, and Washington Square North. The Shop is now working to increase use of native plantings, drip irrigation, and plant nutrient recycling to build healthy soil as best practices for NYU gardens, and hopes to develop NYU as the premier urban university in the areas of sustainable gardening and organic landscape care.

The **Recycling Department**, one of NYU's original sustainability-related programs, has expanded residence hall bin coverage, and is ramping up efforts to collect "technoscrap" materials such as CDs, batteries, cell phones, and printer cartridges. Recycling also pilot-tested a collection and re-use drive for goods discarded by students at the end of the spring semester, collecting 3600 pounds of reusable goods.

In addition to its efforts to develop a long-term strategic plan for the university campus, the **Office of Strategic Assessment, Planning and Design** is working with the **Office of Construction Management** to assemble a set of Sustainable Design Guidelines for all construction and renovation projects. SAPD is also considering ways to improve the space utilization practices of the university, as a strategy for avoiding the environmental impacts of construction altogether. The two offices have also worked with the **Gallatin School** to develop a green building renovation that incorporates energy and water efficiency upgrades, demolition waste recycling, and preferential purchasing for interiors.

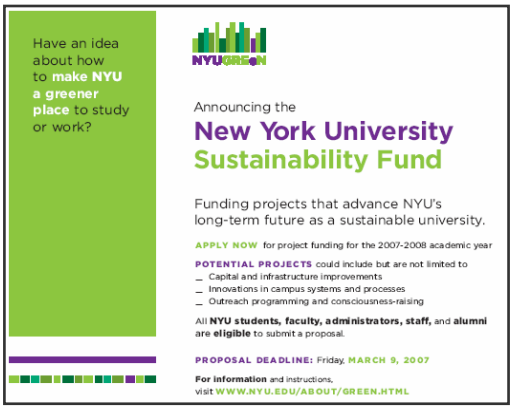
The NYU Bookstore has unrolled a set of new initiatives to conserve resources, including expansion of the Books for Africa program for discarded books, and a re-usable bag sale/incentive program to reduce disposable plastic bag use.

Several projects within the **Student Affairs** division have emerged as opportunities for sustainability. The new Broome Street Residential College program will have an environment-themed "stream" this coming year, and sustainability-related campus programming during Welcome Week is under development.

University Relations and Public Affairs is working to communicate NYU's sustainability projects and achievements to the broader community and the world. URPA has worked to facilitate Sustainability Task Force meetings and events and to coordinate Earth Week, and this coming year, will lead in the development of a university sustainability website. Advertising and Publications strives to award work to printers who are FSC (Forest Stewardship Council) Certified, indicating compliance with green standards at every stage of the production chain.

SECTION 3:
THE SUSTAINABILITY FUND

One key component of the Sustainability Task Force's launch was the funding of a grassroots "request for proposals" for sustainable campus projects that would reduce NYU's environmental footprint, advance environmental research, and contribute to significant campus outreach on this essential issue.



In a short time period, 46 project proposals were submitted by faculty, students, administrators, and alumni. Each was evaluated by a panel of students, faculty and administrators who are members of the Sustainability Task Force's Fund subcommittee. A total of 15 proposals were selected based on likely impact on the campus environmental footprint, ability to be self-sustaining or institutionalized after initial funding, and feasibility and potential for successful implementation. Over $115,000 was awarded, with grants ranging from $1,000-$40,000.

The selected projects are:

- **Green Apple Move-Out (Led by Jennie Tichenor, Administrator, Department of Anthropology, FAS, and Patricia Kiernan, Recycling Shop) -** Every May, students in NYU's residence halls discard used personal possessions as they move out. This program will implement a targeted recycling effort during this period for 2008. A specific range of discarded items will be salvaged in an organized fashion and redirected to local non-profits for their re-use or recycling. The goal of the program would be to reduce the volume of the targeted dorms' waste by 10% below the comparable period the previous year. This program will also save NYU in unneeded carting fees.

- **Existing Building Inventory (Led by Colin Leary and Sarah Wu, Students, Robert F. Wagner Graduate School of Public Service) –** A Wagner Urban Planning Capstone team will work with NYU's Office of Strategic Assessment, Planning, and Design (SAPD) to conduct an inventory of 12 university buildings using the LEED Existing Building rating system. After scoring each building, students will work with building managers and SAPD to identify planned renovations over a 5-10 year period and recommend opportunities to implement green building components.

- **Residential Energy Challenge (Led by Adam Brock, Student, Gallatin School of Individualized Study) -** This proposal covers a pilot run of the Residential Energy Challenge, a program to reduce electricity use in the residence halls. Through monthly tracking, print and online materials, educational activities, and prizes, students will take action to shrink their energy footprint, reducing carbon emissions and generating cost-savings.

- **Revolution Door (Led by Carmen Trudell, Jenny Broutin and Natalie Jeremijenko, Global Distinguished Professor, Faculty of Arts and Science) -** The Revolution Door is a modified revolving door containing a mechanical/electrical system that harnesses human energy and redistributes electricity to an output device. The Revolution Door harnesses a negligible amount of human

energy for use within a building as a tangible light display; communicating each person's contribution to an energy cycle.

- **Healthy Landscape Demonstration Garden (Led by George Reis, Gardener, NYU Garden Shop) -** The NYU Healthy Landscape Demonstration Gardens, under the guidance of a top expert in sustainable urban gardening, will be a pilot project and model for all NYU grounds. Three currently unused plots behind Coles Sports Center with a total area of over 3,000 square feet will be transformed into attractive, chemical-free demonstration gardens to display the methods and principles of sustainable gardening and organic land care. Native plant selections and soil fertility management will combine to create a self-renewing landscape. Students and faculty will have access to these gardens for research purposes.

- **Replacement of Water Aspirators (Led by Charles Strom, Director of Labs, Department of Chemistry, Faculty of Arts and Science) -** The current method of using water aspirators to provide low vacuum in university laboratories is wasteful and inefficient. The project will substitute stand-alone diaphragm pumps in three laboratories to gauge their utility as a water-saving alternative, and assess possibilities for institutionalization across other facilities.

- **Veggie-Powered Vehicle Project (Led by Nelson Harvey, Student, Gallatin School of Individualized Study) -** This project is to select a diesel-ready NYU-owned vehicle and convert it to run on straight vegetable oil. Using vegetable oil would result in emissions reductions compared to petroleum, biodiesel, or ethanol. The vehicle will be branded to raise awareness and spark interest about alternative fuels.

- **Grow, Cook, Eat, Learn (Led by Jennifer Berg, Director of the Food Studies Program, and Joy Santlofer, Department of Nutrition, Food Studies and Public Health, Steinhardt) -** A self-contained sustainable food system, GCEL will create the beginnings of an urban agricultural working laboratory. The rooftop or ground-level greenhouse/garden will incorporate the entire food production cycle from production to harvesting, cooking, nutrition, consumption, waste and composting. This working "lab" will be a microcosm of the new NYU Food Systems academic program. The project will have two components: an initial street- or rooftop-level garden, and a K-5 agricultural science curriculum, with potential for student research and collaboration.

- **NYU EcoPod (Led by Brad Penuel, Director, Center for Catastrophe Preparedness and Response) -** This project will develop and pilot test an indoor planting system based on environmentally-friendly and resource-efficient technology. The EcoPod will be a self-standing container capable of growing a variety of flowers, fruits, or vegetables indoors and constructed using recycled materials from NYU's waste stream. The EcoPod can be used as an educational tool for students; office plant container; indoor air pollution purifier; or promotional gift.

A portion of the landscape behind the Coles Sports and Recreation Center which will be transformed by the Healthy Landscape Demonstration Gardens project, financed by a Sustainability Fund grant.

- **TerraPass Offsets (Led by Melissa Schilling, Associate Professor of Management and Organizations, Stern School of Business) -** A recommendation that the university begin offering Terrapass (or similar) offsets of greenhouse gas emissions associated with business-related faculty/administrative air travel.

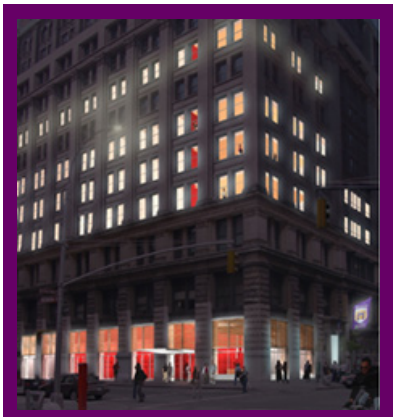
- **Greening of the Gallatin School (Led by Linda Wheeler Reiss, Assistant Dean for Administration, Gallatin School of Individualized Study) -** Gallatin is undertaking a gut renovation of its facilities at 715/719 Broadway, pursuing Silver LEED certification (U.S. Green Buildings Council) for the project. This project will document and publicize the efforts undertaken to promote a sustainable environment at Gallatin, thereby informing the wider community of the potential for green renovation and capital project planning at NYU.

- **Bike to School (Led by Emily Allen, Student, Gallatin School of Individualized Study) -** A dynamic collaboration between NYU students, staff and faculty, and Time's Up!, a 20 year old nonprofit environmental group. The project will focus on salvaging and repairing abandoned bicycles, as well as conducting a bicycle use and parking study on campus.

- **Guide to Green Living (Led by Julio Alvarez, Student, Gallatin School of Individualized Study) -** The preparation of NYU's first-ever Guide to Green Living. The booklet will be a reference for students on how to live, work, eat and purchase goods more sustainably. It will cover such areas as: living in residence halls, computing, recycling, energy conservation, water efficiency, laundry, food and dining, etc. It will be produced with the Housing Office and distributed to incoming freshmen in 2008.

- **Lighting Efficiency (Led by Jorge Garcia, Student, Stern School of Business) -** With the use of new controller technology, lighting electricity consumption at Coles Sports Center can be reduced by up to 25% without the need for retrofitting. The technology works best with High Intensity Discharge Lamps (HID) and fluorescent lighting equipment, and can yield sizeable environmental benefits. This pilot will pay for itself in a short period of time, and is a blueprint for future implementation.

- **Comprehensive Solar/Wind Generation Project (Collaboration with Professor David Holland of the Courant Institute for Mathematical Sciences; Professor Tom Igoe of the Interactive Telecommunications Program at the Tisch School of the Arts; and Peter Woods, Facilities and Construction Management) -** A state-of-the-art wind turbine and solar photovoltaic generator system will power an array of batteries on an environmental monitoring station on an NYU campus rooftop. A suite of instruments will continuously collect statistical data on the wind and solar insolation of the local environment, as well as record the actual power generated by the wind and solar devices. All data will be analyzed to assess the feasibility of renewable distributed campus energy generation.



The Gallatin School received a Sustainability Fund grant to document and publicize the "green renovation" of its building at 715 Broadway, as shown in this rendering.

The Sustainability Task Force is continuing to evaluate other proposals in hopes of funding additional projects as they become viable.

SECTION 4:
RECOMMENDATIONS TO THE UNIVERSITY ADMINISTRATION

Last year, Executive Vice President Michael Alfano charged the newly-formed Sustainability Task Force with developing a "Green Action Plan" (or GAP) composed of recommendations to the administration that would lead NYU toward greater environmental sustainability. The recommendations that follow will be submitted during the summer 2007 to Dr. Alfano for review and consideration. The Sustainability Task Force will be in touch with the relevant areas of the university to follow up on these recommendations.

The Task Force divided into subcommittees to focus on different areas of NYU operations, and to develop GAP recommendations for each. Subcommittees submitting recommendations were: **Academic Initiatives**; **Energy Systems**; **Conservation & Recycling** (including waste management, food, water use, transportation, and purchasing); **Campus Planning** (including building construction and renovation); **Data, Communications & Technology**; and **Outreach & Engagement**.

Each subcommittee was composed of a cross-section of students, faculty, and administrators, led by two co-chairs, who met regularly to develop **policy- and project-based recommendations**. These ranged from immediate "low-hanging fruit" targets to more ambitious longer-term shifts in the way the university interacts with the environment. Recommendations were developed in collaboration with Task Force liaison Jeremy Friedman and Director of Sustainability and Energy Cecil Scheib, while also drawing upon expertise in other relevant NYU administrative departments, gathering research and data, and evaluating best practices from other universities.

The resulting recommendations fall into two categories: policy-based, which will require substantial support, deliberation, collaboration, and/or funding from the NYU administration; and project-based, which may be carried out in the coming months either through the subcommittees themselves, or through student/faculty research and administrative departmental efforts.

A third category of **future projects and recommendations** includes ideas for further consideration and development, but which are not being proposed at this time. These ideas will form much of the work of the Subcommittees in the summer and fall of 2007.

Some key recommendations or projects were raised by multiple subcommittees, in which case a detailed description will be included in the most relevant section. Subcommittees also offered self-evaluation and recommendations about their own structure and function, which (although not included in this report) will be used to strengthen the effectiveness of the Task Force in the future.

ACADEMIC INITIATIVES SUBCOMMITTEE

Charge: The Academic Initiatives Subcommittee was charged with identifying faculty research opportunities and projects across schools, planning conferences and exhibitions, and creating forums among students and faculty for greening the university.

The subcommittee will continue collaborating closely with the newly-launched Environmental Studies Program, a cross-disciplinary, cross-school undergraduate major that will be an important partner for future projects.

Project Recommendations

- Plan **"Educating for Sustainability" lecture series for fall 2007** (already underway)
- **Collaborate with Deans** from all schools to discuss sustainability in their academic programs
- Explore means of stimulating **environment-related research**
- Consider creating a **Center for the Environment** to bring these (and other) activities together
- Develop **connections between academic programs and NYC's sustainability initiative**
- Evaluate the **progress of the undergraduate Environmental Studies program**

Projects and Recommendations for Further Evaluation

- Discuss possible **environment-related graduate programs**
- Foster **environmental literacy education** throughout the undergraduate curriculum

ENERGY SYSTEMS SUBCOMMITTEE

Charge: The Energy Systems Subcommittee has worked to develop recommendations concerning the electricity and mechanical systems that power the NYU campus. Energy recommendations addressed every aspect of these systems – from the purchasing of electricity and commodity fuels themselves, to the generation of power in the on-campus Central Plant, and from technological and administrative improvements in energy efficiency, to grassroots communications-based conservation efforts.

The subcommittee will continue collaborating closely with the NYU Energy Department, and also working in support of several energy-related Sustainability Fund Grant projects.

Policy Recommendations

1) **Reauthorize the Wind Power Purchase for the 2007-2008 Year**
   NYU's landmark purchase of wind power (in the form of renewable energy credits) in fall 2006 was a significant step toward energy sustainability. Though reducing energy consumption through efficiency and conservation measures, and cleaner generation through the expanded Central Plant, are the top priorities for long-term sustainability, it is nonetheless both valuable and effective to purchase the power that the university cannot generate itself from clean and renewable sources. In the upcoming academic year, NYU should reauthorize the purchase of wind power, and should purchase an amount equal to all the electricity it purchases from outside vendors such as Con Edison.

2) **Institute a Sustainability Advocate Program and RA Sustainability Training Program**
   The Sustainability Advocate program would empower NYU staff to "green" their departments by educating them about how to make their work spaces more sustainable, and allowing them to spend some time each month educating their colleagues and implementing sustainability in their offices. The program would train interested staff, who would then spend one to three hours of their paid work time each month working to green their departments. Sustainability Advocates would meet periodically throughout the year to update their training and to share best practices and experiences. The Sustainability Advocates would also serve as a resource to the larger sustainability efforts of the university by identifying issues and opportunities for improvement on the ground level and communicating this information back to the Task Force.

   Another aspect of the Advocate program is a student (or RA) component. RAs could receive sustainability training with the same materials/meetings as administrative staff; alternatively, other students could be invited to participate in the program, so that every residence hall would have a representative. This would be a valuable means to engage the student body at the grassroots level.

NYU's purchase of wind energy credits in 2006 remains the largest purchase of its kind by any American college or university.

3) **Establish an Energy Efficiency Revolving Fund**
This proposal would set aside significant funding specifically to finance environmentally-sound energy efficiency or conservation capital projects that result in cost savings over time. As a project achieves payback, further cost-savings can then be channeled back into the Fund for use in the next round of possible projects. Some of the efficiency and conservation strategies that may be financed with the fund include: vending machine "misers", lighting occupancy sensors, idle computer "sleep" software, compact fluorescent light bulbs, more efficient lab equipment, under-floor heating, energy-efficient boilers, and green building improvements such as better insulation and properly-sized and -fitted piping. Each of these projects can generate "negawatts" of electricity and reduce heating and cooling needs. Reducing consumption can save NYU millions of dollars, and is even more environmentally effective than buying renewable energy.

4) **Review and Assess Rooftop Space, Resources, Access**
In developing research and demonstration projects ranging from green roofs to solar panels and wind turbines, NYU's underutilized roof spaces are receiving a second look. Due to legitimate concerns about hazardous conditions and liability, faculty and staff (much less student) access to roof spaces has tended to be limited or nonexistent. The university should begin a process to identify roofs that could serve structurally to hold sustainability-related projects and develop a standard policy or set of practices to insure safety and minimize risk, while also enabling access for key members of the NYU community (i.e. student and faculty researchers, sustainability staff, press, etc.).


An assessment of NYU rooftops may lead to identifying buildings suitable for green roofs, gardens, solar panels or wind turbines.

Project Recommendations

1) **Implement Efficiency and Conservation Measures**
There are many energy efficiency technologies and conservation strategies that require limited investment, present few logistical barriers, reliably provide a high rate of return, and quickly reduce energy use. Occupancy sensors for building lighting systems (which turn off lights when no one is using the premises), vending misers (which reduce vending machine electricity consumption) and high-efficiency compact fluorescent light bulbs (CFLs) represent easy sustainability opportunities. These technologies should be implemented on a case-by-case basis as soon as possible and incorporated as standard features of our long-term planning and renovations. Another key technology is "sleep software" for all university computers, to ensure that they power down during nights/weekends, if not in use.

The Subcommittee also recommends widening standard building "comfort zone" settings to a band of 68-74 degrees, configuring HVAC systems in coordination with building usage schedules, and assembling an energy audit template for administrative departments to evaluate their own conservation practices.

2) **Run Residence-Hall Conservation Contests**
A student team has received a Sustainability Fund Grant to develop a Residential Energy Challenge contest in several residence halls. The contest will engage students to reduce their

energy consumption through conservation, and will reward winning residence halls with prizes. The Energy Subcommittee and the Energy Department will work to collaborate with this effort, with the intention of institutionalizing the competition, including recycling and waste reduction elements, and possibly expanding it campus-wide.

3) **Create a Comprehensive Energy Database and a Holistic Approach to Energy Planning**
The Energy Department has already begun to develop better ways of tracking and planning NYU's electricity, heating and cooling infrastructure. Key components of this effort include the hiring of a new Director of Energy and Sustainability, and the upcoming renovation and expansion of the Central Plant, which when completed, will supply half of the university's power needs while reducing pollution and carbon emissions across the board.

   Moving forward, and in consultation with the Energy Subcommittee, the department proposes a range of innovations that improve the university's ability to track and evaluate energy supply and demand. Among these: a Smart Metering system that digitally streams and stores consumption and cost data in real time; an Energy Curtailment plan to work with New York City during emergency peak demand periods; master-metering buildings to achieve cost-savings in power purchasing; and the development (by SAPD and the Energy Department) of design guidelines, energy specifications, and construction and renovation standards for new and current buildings. Overall, the Energy Department will be advocating a holistic "campus" approach, instead of a "building by building" approach, to comprehensive energy planning.

4) **Develop a Wind and Solar Electricity Microgeneration Project**
NYU faculty have received a Sustainability Fund Grant to develop a rooftop wind and solar electricity microgeneration project on a suitable NYU rooftop. The Energy Subcommittee will support the project by working with the relevant NYU departments to address practical/logistical obstacles to implementation, including siting the project and ensuring engineering compliance. This pilot project is also an opportunity the Energy Subcommittee to evaluate additional NYU roof sites for potential institutionalization of electricity generation, green roofs, and other sustainability-related infrastructure. The Subcommittee will also research external funding and financing options for microgeneration.

Projects and Recommendations for Further Evaluation

- Consider joining the **Chicago Climate Exchange**, enabling the university to trade carbon credits, which can be purchased to offset employee transportation or energy use, sold to fund further campus sustainability projects, or simply retired outright as an emissions reduction strategy
- Expand **energy conservation outreach** through a guide, newsletter, and/or section of the Sustainability Task Force website

- Research or study the effectiveness of **conservation signage**, light switch "off" stickers, and other reminder materials for NYU buildings
- Consider **energy audits** and **recommissioning or "continuous commissioning" of buildings**
- Gather **best practices, energy-efficient technologies, and equipment from other universities and cities**, then organize them by environmental preference
- Explore potential for **"direct feedback systems"** and **submetering buildings**, giving energy users access to information about their consumption to encourage behavioral change
- Investigate **energy budget allocation incentives** for departments or schools that reduce consumption, and consider incorporating sustainability incentives and/or surcharges into energy budgeting system
- Examine **capital equipment databases** to consider energy-intensive equipment due for replacement
- **Work with CBS, Housing, and other departments** to ensure that "lights-off" provisions and recycling policies are included in maintenance staff training and responsibilities
- **Research** solar water heating, geothermal power, fuel cells, passive solar heating, greenroofs and other generation and energy efficiency **technologies for NYU feasibility**
- Consider **potential administrative department conservation competitions** and **funding options for efficient equipment**

CONSERVATION AND RECYCLING SUBCOMMITTEE

Charge: The Conservation and Recycling Subcommittee worked to evaluate campus practices and develop recommendations across five diverse and important areas of concern: recycling (including waste reduction and composting), food (including organic, local and Fair Trade policies), transportation (including public and individual transit options), procurement (including asset management and central purchasing), and water (including contamination and conservation).

The Subcommittee will continue collaborating closely with multiple administrative departments, including NYU Recycling and Solid Waste Management; Purchasing; Asset Management; Transportation Services; Dining Services; and Public Safety.

Policy Recommendations

Recycling

1) **Implement the Recycling Action Plan**
   The Subcommittee worked with Recycling Shop coordinator Patricia Kiernan and Task Force liaison Jeremy Friedman to produce a Comprehensive Action Plan for Recycling at NYU. The plan lays out specific, concrete solutions to challenges facing recycling, and sets forth an ambitious, practical plan for recycling as part of NYU's overall sustainability vision.

   Recommendations are linked to a timeline to expedite the process, and are organized into three tiers. Tier 1 recommendations can and should be implemented immediately, with little planning and limited cost; Tier II recommendations require collaboration with other departments or additional planning, and can be implemented over the rest of 2007; and Tier III recommendations will require substantial effort and collaboration, which may be more aspirational, and which can be initiated, at least, by January 2008. This Action Plan will first work to avoid waste through reduction and reuse efforts, and also increase recycling diversion rates, expand bin coverage on campus, and initiate the recycling of new materials.

2) **Institute a Sustainability Advocate Program and RA Sustainability Training Program**
   See Energy Subcommittee recommendations.

Purchasing

1) **Expand Storage Space for Asset Management**
   Currently, much of the old furniture or office equipment disposed of by NYU departments winds up in the waste stream, due to (among other reasons) a lack of available storage space for the Asset Management department to hold items prior to redistribution. Asset Management has already requested use of the sub-basement of 29 Washington Place for storage purposes. Support for this space would allow the department to triple the amount of surplus material it maintains for redistribution, ensuring that waste is minimized and recycling maximized.

2) Require Recycled Paper Purchasing for all NYU Departments

Although the Purchasing Department can spotlight and recommend recycled paper, departments can often opt not to buy it, possibly due to inaccurate impressions of its inferior quality or performance. The relatively low effectiveness of voluntary measures was highlighted by the 2006 "Greening the Urban Campus" Report, published by a Gallatin student team:

In 2003, the NYU Senate passed a resolution recommending that all departments use 30 percent post-consumer recycled paper. The following year, the amount spent on recycled paper by the University increased by a third, to nearly 75 percent. But since then, the amount spent on recycled paper has decreased every year, as the amount of non-recycled or "virgin" paper has increased. Because the paper policy was merely a recommendation issued by the Senate, rather than an administrative mandate, it carried no authority, and many departments continue to use virgin paper despite the fact that it offers no cost or performance differential.

A carton of Staples-brand 30% recycled copy paper costs only slightly more than the Staples-brand virgin paper available to NYU offices through Stapleslink.

Transportation

1) Implement Environmental Vehicle Purchasing Guidelines

The Department of Public Safety has already indicated that any new vehicles they purchase will use hybrid technology, but policies are needed to spread a similar purchasing philosophy throughout the university. Alternative policy approaches should be investigated, including purchasing vehicles based on best available fuel economy (hybrid or gas-powered) provided that they adequately meet standards of overall cost, safety, comfort and vehicle performance.

2) Conduct Efficiency Review of Bus Fleet

NYU Transportation Services could collaborate with transportation contractor Coach USA on an annual efficiency review of the university's 20 commuter buses and bus routes. By comparing vehicle mileage, passenger loads, fuel usage, route length and other factors, NYU transportation planners can ensure the least possible fuel usage and emissions per passenger mile traveled. Preliminary analysis has indicated that the buses traveling on east/west routes emit nearly three times as much greenhouse gases per passenger as those traveling north/south. While the bus routes are planned based upon a broad range of factors, it is important to inject sustainability as one of these factors.

One alternative is to consider offering flexible or call-scheduled vehicles for less-traveled routes, or smaller vehicles on routes with lower ridership. A third option is to develop a subsidized MTA Metrocard policy for students (as many other universities have) to reduce the needs for NYU's fleet altogether.

3) Record Mileage and Fuel Purchases for all Departments with Vehicles

Keeping a central record of this key information will (as with other currently hard-to-obtain environmental data) help to identify opportunities for efficiency improvements, to strategically purchase new fuel-efficient vehicles, and to quantify

emissions offsets, should the university decide to offset its transportation emissions.

Food

1) **Increase Local and Organic Food in Dining Halls**
   One option is to incorporate basic quotas for local and organic products into Dining Services contracts, roughly in accordance with the following definitions:

   Local Food is defined by Sid Wainer, NYU's specialty food contractor, as food sourced from any farm in the states of NJ, NH, VT, CT or NY. Sid Wainer supplies a portion of NYU's produce, and also deals with companies such as Whole Foods.

   Organic Food is defined as food produced from "an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony." (National Organic Standards Board)

   This minimum "floor" could increase local and organic product purchasing while providing the dining services contractor flexibility (based on seasonal variation, availability, and other factors) in meeting standards. Dining Services and Aramark could also strive to establish relationships with local suppliers through mechanisms such as the NYC Greenmarket Cooperative.

A greenhouse at Norwich Meadows Farm in central upstate New York. Members of the Washington Square CSA purchase a share in Norwich Meadows' production and receive a weekly supply of organic produce.

2) **Explore Partnership of Dining Services and the Washington Square CSA**
   The Washington Square CSA is a program already in place providing local, organic produce to more than 100 NYU students, administrators and faculty. Such a partnership could be win-win, by providing the CSA with more customers and enhanced advertising opportunities, while enabling Dining Services to offer dining features that appeal to students who might otherwise skip the meal plan altogether.

3) **Develop Local and Organic Food Options for Catering**
   Dining Services, Aramark, and the private catering companies that service the university could collaborate with individual departments and schools to provide local and organic food options for special events. This approach would provide Dining Services with the opportunity to test and develop relationships with local and organic suppliers, as well as myriad opportunities to publicize and educate event attendees about sustainable food options.

Water

1) **Begin Tracking Water Consumption in all Buildings**
   Current water consumption records exist only in hard-copy form, for 2005, from the New York City Department of Environmental Protection. NYU has sometimes tracked water and sewer billing, from which water usage may be estimated, but altogether it will be challenging to reduce water usage in university buildings or make detailed recommendations about water conservation without accessible consumption data.

Project Recommendations

Recycling

1) **Conduct a Characterization Study of NYU's Waste Stream**
   A waste characterization study would evaluate the categories of materials in NYU's current waste stream and identify opportunities to improve current practices in waste reduction, re-use, and recycling. Ideally, the project would include analysis of waste from at least the following sources: academic/office buildings, residence halls, dining halls, outdoor waste and recycling containers, and laboratories.

   Students and faculty would design a study to sample, identify, classify and weigh waste from multiple sites around campus. A report with recommendations would be the final product.

2) **Implement a Composting Pilot Project**
   This would take place within a single NYU dining facility or on a campus rooftop, and would evaluate the logistical and economic feasibility of a campus-wide composting program. Funds would be used to purchase and maintain a single "in-vessel" composting unit to process post consumer waste from a dining hall. Project participants would weigh waste before and after composting began, in order to quantify the reduction in landfilled carting and its associated environmental impacts. Another aspect of the project could be evaluating the feasibility of alternative composting approaches or the potential for biogas extraction from waste materials.

Purchasing

1) **Create Uniform Environmental Purchasing Policies**
   The Purchasing Department has already begun to pursue environmental purchasing practices in a variety of areas, and the department intends to consolidate all of its efforts into a central Environmental Purchasing Policy. This document will draw on the efforts of other universities to establish standards for what constitutes an environmentally preferable product across many areas of university operations, as well as when such a product should be chosen over the available alternatives.

   Going forward, Purchasing will work with the Subcommittee to develop purchasing standards. This will include reaching out to new areas, such as university-contracted dry cleaners, caterers, and florists, to express a preference for environmentally sound products and practices. While Purchasing does not act as an enforcer of purchasing rules, it does influence the selection of products available to departments, and this influence can be exercised for environmental benefit.

Transportation

1) **Implement an Alternative Fuel Vehicle Pilot Project**
   The Subcommittee will work with Campus Transportation Services and Purchasing to facilitate the alternative fuel vehicle conversion project that has received a Sustainability Fund Grant, by helping to select a vehicle and conduct the conversion. Other tasks may include publicizing the initiative and conducting a cost-benefit analysis of different alternative vehicle technologies for the NYU fleet including hybrid, fuel cells, ethanol, and others.

2) **Expand Bike Rack and Bike Storage Availability**
The NYC "City Racks" program provides free bicycle racks to organizations that identify sites meeting space and safety requirements. The Subcommittee will assist in identifying eligible sites and studying patterns of bicycle use on campus. Another possibility is to establish additional "safe" bike storage locations similar to those housed within Tisch Hall and Palladium Residence Hall; this option has the benefit of protecting bicycles from theft. The Subcommittee will be working in collaboration with the Sustainability Fund Grant project that will salvage abandoned bikes and analyze bike infrastructure on campus.

Projects and Recommendations for Further Evaluation

- **Implement a Printing Standard for All University Publications**
The numerous publications produced by the university consume a large amount of paper, and they also represent a method of outreach both to students and faculty within the school and to the wider community. They can embody NYU's sustainability principles by featuring materials that minimize environmental impact. The Subcommittee plans to work with the Purchasing Department, Advertising and Publications, and NYU Copy Central to develop a campus environmental standard for printing practices. This could draw upon agency standards such as Forest Stewardship Council (FSC) certification, and would include recommended sizes for different applications, standard inks and papers, and cost-benefit analysis of the policy.

CAMPUS PLANNING SUBCOMMITTEE

Charge: The Campus Planning Subcommittee looked at both conceptual and practical linkages between planning, building construction and renovation, and sustainability. The Subcommittee further divided into three workgroups to focus on Green Buildings, Landscape/Ecology, and Long-Term Planning. These workgroups developed three main clusters of recommendations, embodied by the goals "Create and Implement Sustainable Design Guidelines"; "Empower Grounds"; and "Improve Campus Space Utilization".

The Subcommittee has and will be collaborating closely with the Office of Strategic Assessment, Planning and Design (SAPD); the Office of Construction Management (OCM); and the NYU Garden Shop.

Policy Recommendations

1) **Create and Implement Sustainable Design Guidelines**
   As one of the largest property owners in New York City, NYU can make a significant positive impact on the environment through responsible building/construction practices. NYU owns or operates more than a hundred buildings on campus - more than 15 million square feet of building space. However, there has been only limited consideration of the efficiency, health or conservation techniques utilized in these buildings. No standard policy currently exists to address sustainability concerns in the development, design and construction of university buildings.

   The Planning Subcommittee proposes that NYU create, adopt and implement a set of Sustainable Design Guidelines. The United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system is the most useful and widely recognized standard for "greening" a building. Many cities and universities have adopted the LEED Silver standard for all new construction and major renovations. Our guidelines should meet these standards and, like NYC, also require a 30% reduction in water use and a 20% reduction in energy use.

   Since LEED does not cover landscaping or streetscaping, the Subcommittee proposes that the Sustainable Design Guidelines also incorporate landscaping installation and maintenance policies that adhere to the standards of organic land care and sustainable gardening. These policies would address the use of native plants, organic fertilizers, environmentally sensitive integrated pest management, and the reduction of impervious surfaces. These policies would apply to Garden Shop operations as well as all horticultural contractors working on the NYU campus.

   As part of the implementation of the Sustainable Design Guidelines, the Subcommittee proposes that the University conduct a study to understand how current buildings measure against the LEED standard, encourage or mandate that all appropriate facilities and planning staff become LEED certified, and take responsibility for establishing a training program.

The adoption of these guidelines will create both public and private benefits:

- Reduced consumption of natural resources and energy
- Reduced GHG emissions (better air quality and reducing contribution to Global Climate Change)
- Reduced production of waste
- Use of recyclable materials
- Financial savings through more efficient energy, HVAC and water systems
- Improved public and community relations

2) Expand Scope and Funding of NYU's Garden Shop

NYU has a responsibility to care for the space and ecology outside of its buildings. The university currently employs only two full-time gardeners in the Garden Shop. Disparities in the level of quality landscaping around NYU buildings is due to the lack of centralized responsibility for all grounds at NYU. The current responsibility of the Garden Shop is primarily to maintain and improve the aesthetics of selected areas of the campus, with many efforts focused on Commencement season in May. There is no formal connection between the Garden Shop and Campus Planning or any long-term strategy for green space or landscaping. This is symptomatic of a low priority given to outdoor space and our surrounding natural systems. With more resources, training in organic land care and sustainable gardening, better long-term planning, and greater authority, the staff at the Garden Shop could implement a much more expansive and comprehensive effort to develop local ecosystems.

The sidewalk garden in front of 5 Washington Square North was replanted in 2006 by the NYU Garden Shop.

The Subcommittee proposes significantly increasing the budget of the Garden Shop in order to empower staff to implement a variety of new and sustainable gardening techniques and to expand their ability to improve existing green spaces and create more green space on campus. Additionally, there should be strong linkages between the Garden Shop and Campus Planning, in order to engage the gardeners in long-term landscaping, ecology and maintenance strategies. Additionally, linkages should be developed between the Garden Shop and academic programs such as the new Environmental Studies major and the new Food Systems program. Partnerships with local ecology research organizations such as the Center for Urban Restoration Ecology should also be fostered.

Increased vegetation and more responsible gardening provide many proven public and private benefits:

- Better air quality through increased air filtration
- Better productivity and lower stress for those who can view gardens daily
- Increased property value through aesthetic improvements
- Reduced human exposure to toxins through organic land care
- Lower water usage through lawn reduction, native plant selection, and drip irrigation
- Improved biodiversity for a more balanced ecosystem
- Improved storm water management
- Reduced Urban Heat Island Effect

- Improved cooling of sidewalks and buildings
- Opportunity for research/education
- Provide amenities to the community and neighborhood

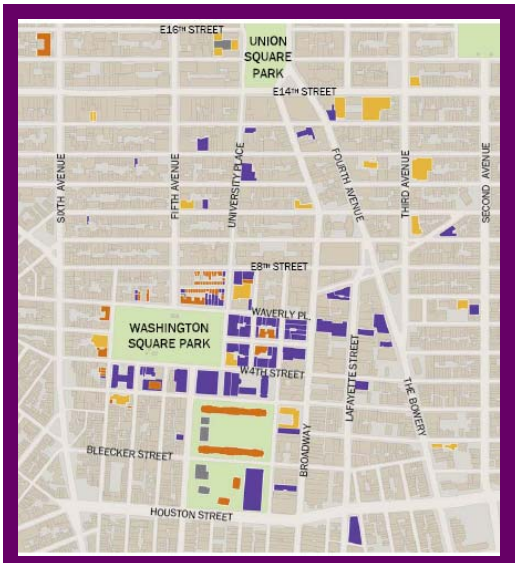
3) Improve Campus Space Utilization

NYU has a responsibility to provide space for classrooms, educational support, meetings, office space, and extracurricular/recreational activities. Space is a precious commodity at an urban campus like NYU and demand outstrips supply. Often, space is less efficiently allocated than it could be, which encourages physical growth and construction that may not be necessary. Where possible, NYU should find alternatives to physical growth by using space more efficiently.

In order to understand exactly how space is currently being used on campus, the Subcommittee proposes a public space utilization survey and a faculty/classroom utilization survey. The University should use this information to help build a University-wide space database to allow for campus community members to better access and use open space. Additionally, we encourage administrators to link efficient space usage with incentives through the implementation of a Space Utilization Policy.

More efficient use of space creates less demand for physical growth, which has many benefits:

- Monetary savings by avoiding unnecessary construction
- More opportunities and less frustration for campus community members
- Reduction in use of natural resources
- Reduction in pollution and emission



A new map of NYU facilities in the Washington Square, Union Square, and East Village neighborhoods helps planners to better understand the use of campus space.

DATA, COMMUNICATIONS AND TECHNOLOGY SUBCOMMITTEE

Charge: The Data, Communications and Technology Subcommittee is tasked with identifying metrics to perform a sustainability assessment of the university; developing communications strategies to share appropriate data both within the university and with the broader community; coordinating data collection and consolidation efforts for the Task Force; and using data to channel NYU's limited resources into the projects and initiatives that will have the greatest positive impact on sustainability.

The Subcommittee will continue collaborating with administrative departments in Facilities and Construction Management; University Relations and Public Affairs; Strategic Assessment, Planning and Design; and Auxiliary Services to gather key information about NYU's environmental impacts.

Policy Recommendations

1) **Carry out a Comprehensive NYU Sustainability Assessment**
   NYU should carry out a comprehensive institutional sustainability assessment this year, with annual updates thereafter. The Task Force was charged with developing a Green Action Plan "to improve NYU's environmental footprint and save energy". Without an in-house, institutionally-sponsored sustainability assessment, we cannot fully understand where we currently stand on sustainability. By establishing baselines about our current environmental impacts, we can prioritize efforts, set goals, and benchmark progress toward sustainability (by avoiding or mitigating harmful impacts and strengthening beneficial ones).

   An initial sustainability assessment should ensure that the same indicators are measured on a yearly basis. This will benefit the University in other ways as well: carefully tracking data such as energy usage, water usage and waste generation and disposal will enable the university to operate more efficiently and identify opportunities for saving a significant amount of money.

   This process will involve the following steps:
   1. Develop a list of sustainability indicators
   2. Enlist administrative departments in evaluating their data management needs relating to indicators
   3. Gather data pertaining to each indicator
   4. Based on gathered data, establish baselines and set concrete goals for the future
   5. Establish a plan for achieving those goals
   6. Set benchmarks to measure progress
   7. Institutionalize the sustainability assessment process to ensure that progress will be measured on an annual basis

   The Data Subcommittee further recommends that NYU collaborate with the national university sustainability organization, AASHE, to serve as a pilot school for their recently-launched effort to develop a standardized sustainability rating system (similar to LEED) for universities.

Project Recommendations

1) **Implement a Comprehensive NYU Sustainability Website**
   An innovative, visually-appealing, easy-to-navigate sustainability website at the *nyu.edu/sustainability* address will serve as both a clearinghouse of resources, and as a hub to connect NYU with the world, the community, other universities/sustainability professionals, and diverse campus stakeholders, all while building the university's prestige and publicizing its environmental accomplishments.

   The website will be the home of statistics, data, records, university programs and initiatives, environmental policies and standards, green lifestyle tips, best management practices, and contact information. It would be developed collaboratively by the Task Force Subcommittees, Web Communications, and other experts, and will strive to incorporate user-friendly and user-generated content.

Projects and Recommendations for Further Evaluation

- Gain access to, begin collecting, and develop **collection plans for missing environmental data** throughout the university in preparation for a Sustainability Assessment

- Establish a set of **policies on data management and data sharing**, focusing on who is in charge of maintaining what data and filling in gaps in responsibility. Reduce duplication of like data (i.e., multiple building lists; different contact lists, etc.)

- The Sustainability Website could also serve as a portal for access to a **centralized environmental database**, which is maintained and updated consistently. The database can draw upon in-house expertise in its design. It should be easily utilized for data visualization, statistics, spatial analysis, and building data into metrics graphically.

- Create a **policy on equipment replacement,** a standard that new equipment has necessary monitoring or data collection equipment built in or included in the purchase, to enable the university to gradually phase out systems that do not track environmental data.

- Explore **feedback systems for conservation** (for example, giving residents access to information about their energy consumption and costs, enabling them to reduce it accordingly)

OUTREACH AND ENGAGEMENT SUBCOMMITTEE

Charge: The Outreach and Engagement Subcommittee worked to develop ideas and projects that would aid other Sustainability Task Force subcommittees in engaging the broader NYU community. Outreach advised on the planning of Earth Week in April 2007, and is beginning to propose and plan future campus activities.

The Subcommittee has and will be collaborating closely with NYU Student Affairs, Housing, Community Service and Community Relations.

Project Recommendations

1) **Develop a Guide to Green Living at NYU**
   A student team has received a Sustainability Fund Grant to develop content for a Guide to Green Living at NYU. The Guide will educate students about the many personal actions they can take to reduce harmful environmental impacts. The Outreach Committee will advise and collaborate on this project, and will facilitate partnership with the Housing Department (for eventual distribution to incoming freshmen), Residence Life (for possible RA training programs), the Administrative Management Council, the Faculty Senators Council, and other university organizations to maximize outreach.

2) **Implement a Comprehensive NYU Sustainability Website**
   See Data, Communications and Technology Subcommittee recommendations.

Projects and Recommendations for Further Evaluation

- Promote and **fund sustainability among student clubs** and develop **Earth Week** in the spring as a major stage for outreach and sustainability awareness

- Explore opportunities to use **surveys** as a means of assessing the knowledge, behavior and attitudes of the NYU community

- Develop a comprehensive **promotion and marketing plan** for sustainability to raise awareness among students, faculty, administrators and staff not currently aware of NYU's sustainability initiative

SECTION 5:
FUTURE GOALS AND PLANS

The purchase of wind-generated energy, the establishment of the Sustainability Task Force, and the launch of comprehensive energy and building planning initiatives have all helped to catapult New York University into the circle of environmental leaders. After months of energetic meetings that saw the development of the recommendations in this report, the Sustainability Task Force plans to spend the summer reflecting on its own operations and developing a cohesive strategy for the future to present to the NYU community in the fall of 2007.

To establish partnerships across campus, the Task Force plans to share its activities and discuss possibilities for collaborations in a series of meetings with administrators in Student Affairs, Development and Alumni Relations, Human Resources, and Admissions, among others.

In all its activities going forward, the Task Force will adhere to these guiding principles:

1. Encourage innovation, effectiveness, progress and restoration as an iterative and continually evolving transition towards sustainability
2. Rely on metrics to assess our status and progress over time and inform our prioritization of interventions
3. Incorporate the principles of economic, social and environmental sustainability into all decisions
4. Formally incorporate foresight as a planning tool to create comprehensive strategies for responsible and cost-effective decision-making into the future

To make progress toward achieving this vision, the Task Force has laid out these over-arching goals:

1. Engage and educate the NYU community about sustainability
2. Support university sustainability research and education efforts
3. Assess the current sustainability of the University, establish goals for improvement and make recommendations regarding how the University can make its operations more sustainable
4. Serve as a resource for the NYU community and a means through which students, staff and faculty can participate in and contribute to the process of making NYU more sustainable
5. Establish relationships within the community around NYU to ensure that NYU's sustainability efforts work in tandem with those of others, and with the city as a whole
6. Inspire campus community members to help find and implement solutions and collectively celebrate victories
7. Break down barriers between schools, departments and operational units in order to create a University-wide dialogue about sustainability and to encourage cooperation
8. Document and publicize NYU's progress towards sustainability

The 2006-2007 academic year marks the first step in a longer journey. We must now set out, together, to better understand the ways our individual and institutional actions affect the environment, and then proactively ensure that we leave the lightest footprint possible. To truly

embrace sustainability, NYU will have to consider the institutional and educational implications of its operations: ensuring that decisions do not adversely affect future generations of humanity; that decisions are made in the context of nature's own innovation-encouraging limits; and that decisions must be held to a Triple Bottom Line of environmental, social and economic soundness.

In the year to come, the Sustainability Task Force will work to assist NYU students, faculty and administrators in moving far beyond initial achievements, reducing energy usage and mitigating global warming, exploring the frontiers of sustainable food and waste management systems, and enacting cutting-edge education and outreach programs.

Please visit the preliminary Sustainability Task Force Website, at **http://www.nyu.edu/about/green.html**, for news and updates. If you have further questions or comments about this report, or about the Sustainability Task Force and future NYU sustainability initiatives, please contact Jeremy Friedman, Project Administrator, at (212) 998-1073 or **jeremy.friedman@nyu.edu**.

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APPENDIX A: SUSTAINABILITY TASK FORCE MEMBERS, 2006-2007

Julio Alvarez	Student; Gallatin '09: Business Management and Sustainable Development
Efrain Azmitia	Professor of Biology, Faculty of Arts and Science; Faculty Senators Council
Meenakshi Baker	Director, Facilities Technology and Support Services, FCM; Student, SCPS '07
Vicki Been	Elihu Root Professor of Law; Director, Furman Center for Real Estate and Urban Policy, School of Law
Morgan Bottner	Student; Law '08
John Bradley	Assistant Vice President for Energy, Engineering and Technical Services
Adam Brock	Student; Gallatin '08: Designing Sustainable Communities
Marc Brodeur	Student; CAS '07: Economics and Mathematics
Lynne P. Brown	Senior Vice President for University Relations and Public Affairs
Michael D. Davis	Student; Wagner '07: Urban Planning
Daniel Dempsey	Alumnus; CAS '06: Economics and Politics
Annie Dwight	Student; Law '08
Suzanne England	Dean, School of Social Work; Deans Council
Ken Fauerbach	Executive Director, IT Planning & Compliance Services, ITS; Administrative Management Council
Angela Hacker	Student; Wagner '07: Public & Nonprofit Management & Policy
Nelson Harvey	Student; Gallatin '09: Renewable Energy Studies
Marty Hoffert	Professor Emeritus, Physics
Pierre Hohenberg	Senior Vice Provost for Research
Shira Honig	Student; Wagner '08: Public and Nonprofit Management
Alicia D. Hurley	Associate Vice President for Government and Community Affairs
Tom Igoe	Assistant Arts Professor, Interactive Telecommunications Program, TSOA
Dale Jamieson	Professor of Environmental Studies & Philosophy, Steinhardt
Natalie Jeremijenko	Global Distinguished Professor, FAS / Steinhardt
Zvi Kedem	Professor of Computer Science, Courant Institute for Mathematical Sciences; Faculty Senators Council
Patricia Kiernan	FCM Recycling Shop

Alison Leary	Vice President for Facilities & Construction Management
Lori Pavese Mazor	Assistant Vice President; Office of Strategic Assessment, Planning & Design
Owen Moore	Director of Dining Services
Beth Morningstar	Office of the Chief of Staff and Vice President for Administration
Mansi Patel	Student; CAS '07; Student Senators Council
George Reis	Gardener, NYU Garden Shop, FCM
Lindsay Robbins	Student; Wagner '07: Urban Planning
Oren Ross	Student; TSOA '07: Interactive Telecommunications Program; Student Senators Council
David Rozan	Student, Wagner '07: Urban Planning
Cecil Scheib	Director of Energy and Sustainability, FCM
Jennie Tichenor	Anthropology Department; Administrative Management Council
Russell Unger	Alumnus, Law '01
Tyler Volk	Associate Professor of Biology
Marc Wais	Vice President for Student Affairs
Peter Woods	Facilities Manager, FAS-Main Block, FCM
Bailey Jennifer Woolfstead	Student; Gallatin '07: Terrorism & National Security; Student Senators Council
Alan Yood	Associate Vice President for Operational Risk Management
Lillian Zalta	Assistant Dean for Operations and Administrative Services, School of Law
Rae Zimmerman	Professor of Planning and Public Administration, Wagner School
Daniel Zwanziger	Professor of Physics; Faculty Senators Council

Administrative Support and Coordination

Jeremy Friedman – Project Administrator, Sustainability Task Force
Regina Syquia – Manager of Special Projects, University Relations and Public Affairs
Sarah Hench – Senior Policy Analyst, Government and Community Affairs

APPENDIX B:
LIST OF SUBCOMMITTEE MEMBERS, 2006-2007

Academic Initiatives

Co-chairs: Dale Jamieson and Oren Ross
Members: Julio Alvarez, Shira Honig, Natalie Jeremijenko, Beth Morningstar, Bailey Woolfstead, Rae Zimmerman, Dan Zwanziger

Conservation and Recycling

Co-chairs: Nelson Harvey and Jennie Tichenor
Members: Adam Brock, Annie Dwight, Alex Engel, George Hellen, Steve Heller, Patricia Kiernan, Annie Meyers, Larry Pender, Danielle Yandel, Lillian Zalta

Data, Communications and Technology

Co-chairs: Ken Fauerbach and Lindsay Robbins
Members: Jill Appel, Meenakshi Baker, Tom Igoe, Tyler Volk

Energy Systems

Co-chairs: John Bradley and David Rozan
Members: Morgan Bottner, Marc Brodeur, Daniel Dempsey, Tom Igoe, Natalie Jeremijenko, David Lehmann, Lindsay Robbins, Peter Woods, Alan Yood

Campus Planning

Co-chairs: Angela Hacker and Lori Mazor
Members: Adam Brock, Michael Davis, Mark Gordon, Tom Igoe, Barbara Kaufman, George Reis, Lindsay Robbins, Russell Unger, Lillian Zalta, Rae Zimmerman

Outreach and Engagement

Co-chairs: Marc Wais and Bailey Woolfstead
Members: Julio Alvarez, Meenakshi Baker, Ken Fauerbach, Shira Honig, Tyler Volk, David Lehmann, Beth Morningstar, George Reis

Sustainability Fund

Co-chairs: Efrain Azmitia and Pierre Hohenberg

Members:
Lynne Brown
Mark Callahan
Alicia Hurley
Zvi Kedem
Beth Morningstar
Lindsay Robbins
Christine Shakespeare

Steering Committee

Julio Alvarez
Efrain Azmitia
John Bradley
Adam Brock
Lynne Brown
Daniel Dempsey
Ken Fauerbach
Angela Hacker
Nelson Harvey
Pierre Hohenberg
Alicia Hurley
Dale Jamieson
Alison Leary
Lori Mazor
Beth Morningstar
Lindsay Robbins
Oren Ross
Jennie Tichenor
Marc Wais
Bailey Woolfstead

APPENDIX C:
SUSTAINABILITY TASK FORCE STRUCTURE