Sustainability Strategic Plan

2010–2013

Creating a sustainable campus to educate the leaders of tomorrow requires the flexibility to practice new behaviors, enable innovative strategies, embrace promising new technologies, and continuously seek new solutions over time. Success depends on the active contribution of every member of the Yale community.

recommendations of the yale university sustainability task force, september 2010

To the Yale Community:

Universities have a critical role to play in curtailing global warming and providing leadership to build a more sustainable world. Our commitment requires vision, perseverance, creativity, innovation and a willingness to adopt new practices.

To set the foundation for a comprehensive sustainability plan I invited a group of key leaders within the University to form the Sustainability Task Force in the summer of 2009. This group was charged with developing a set of sustainability goals that would be both visionary and achievable over the next three years. The resulting Sustainability Strategic Plan 2010-2013 assigns certain goals and responsibilities to various units within the University, but the Plan also calls for full cooperation from the entire Yale community.

We need support from all of you to assist in achieving our goals by: reducing our waste stream and improving our recycling habits; using less energy and being mindful of turning off lights and computers; reducing our paper consumption by making an effort to double side your printing or not to print at all; and by seeking alternative means of transportation in an effort not to expand our parking capacity.

This plan is not just about improving Yale's environmental footprint but is intended to enhance the quality of life on campus while streamlining systems and processes to save resources, as well as time and money.

Although we must meet our immediate needs, the University also carries the responsibility to train tomorrow's leaders. We must be in the forefront not only in advancing science, technology, and education; but also in demonstrating to the world that substantial reductions in greenhouse gas emissions are feasible and not prohibitively expensive. And by fostering a culture of sustainability, we also will be helping to create models for future generations. As we embark on the Yale Sustainability Strategic Plan, we hope to instill in our students, staff, and faculty a full understanding of what it means to be a part of a sustainable tomorrow. I look forward to having the entire Yale community join me as we work to create such a sustainable environment.

Sincerely yours,

Richard C. Levin
President
Yale University

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Yale
Yale
ONE WAY

INTRODUCTION

For over a hundred years, Yale has been a leader in teaching and research about the environment, and our graduates have been conspicuous in environmental leadership, advocacy, policy, and science. Over the past ten years, Yale has been prominent in declaring that environmental citizenship must extend beyond the University's academic enterprise and that Yale as an institution must adopt policies and practices that will contribute to a more sustainable planet. Consistent with the need to exhibit leadership in this critical future direction, Yale announced in 2005 that it would reduce its greenhouse gas emissions by 43% below 2005 levels by 2020, at a cost of less than 1% of annual operating expenses. And that was just the beginning.

Yale's vision of being a sustainability leader is grounded in the Bruntland Commission's definition of sustainable development to meet our "present needs without diminishing the abilities of future generations to do the same."[1] Yale's efforts in support of this ambition have included the establishment of the O∞ce of Sustainability and a variety of initiatives such as Transportation Options, Recycling, and the Sustainable Food Project. Outside of New Haven, Yale has become and remains committed to being a campus sustainability leader, both nationally and internationally, in facilitating exchange of best practices and demonstrating the power of collective action.

Beginning in the summer of 2009, a score of individuals—including a Sustainability Task Force of nine committees—worked together to develop a sustainability framework with goals and targets designed to advance Yale's efforts during the next three years. Building a sustainable campus is a multifaceted, interdisciplinary endeavor that requires the imaginative collaboration and perseverance of students, staff, faculty, and administrators. Success requires the flexibility to practice new behaviors, enable innovative strategies, embrace promising new technologies, and continuously seek new solutions over time. The targets have implications for all operational divisions throughout the University and require heightened engagement by every member of the community to create a sustainable Yale. This plan deliberately focuses on campus and administrative systems in an effort to strengthen the foundation of Yale's sustainability commitment.

This framework recognizes the complexity of the University as an organization: the campus serves as a living laboratory, workplace, learning environment, home, cultural repository, research enterprise, and more. It has a complicated infrastructure and offers

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1 The Bruntland Commission (BC; aka the World Commission on Environment and Development) was convened by the United Nations in 1983 to address growing concern "about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development." The BC report was published in 1987, formalizing the definition of sustainable development.

the opportunity for applied research and modeling of innovative systems. An effective university sustainability framework recognizes the institution's impact upon the earth's systems, our reliance on material goods, our deeply rooted dependency upon technology, and the critical role of human behavior in achieving meaningful change.

Of course, as Yale grows that growth adds challenges to meeting our sustainability goals since new space entails additional utility use, water consumption, waste disposal, and other resource use–related challenges. As we build Yale academically in the years ahead, we can do so in ways that support and advance sustainability.

Sustainability framework

Our success in this endeavor depends upon leadership at the individual, unit, and institutional levels. We must work together and embrace each of the goals as a community effort, not solely a unit commitment. For example, success in reducing waste and increasing recycling requires the Facilities Department to improve how our waste is collected, but it also entails all of us to rethink what we need to purchase, how much we need, and how we choose to dispose of a product or packaging. Most of the goals in this document will similarly entail a community-wide effort if we are to be successful.

The framework presented in the following pages has been endorsed by the University O∞cers. Yale recognizes that to become sustainable requires a long-term commitment that

leads to both short- and long-term benefits. In light of the recent economic downturn, Yale embraces its commitment to sustainability as a strategic opportunity for resource use reduction, improved e∞ciency, and increased collaboration between systems. This strategic plan is an evolving document, and the Task Force will apprise the community annually of the progress made toward achieving established goals.

The recommendations are presented with a brief overview of the institutional challenge in each area and the opportunities to advance sustainability.

Campus
Systems

Campus Planning, Building Design, and Construction

Challenge: The Yale campus is composed of approximately 400 buildings with 16.2 million square feet of space, owned and leased, spreading across a 1,088-acre campus that operates 365 days a year.[2] Yale currently supports a community of more than 26,000 students, staff, and faculty, 5,000 of whom reside on campus nine months of the year. The University has undertaken an extensive capital program to expand or renovate areas of the Central, Medical, and West campuses. During the past decade, Yale has built approximately two million gross square feet (GSF), and an additional two million GSF have been acquired at the West Campus.

Although the economic downturn is delaying many capital projects for the next several years, Yale has ambitious plans for new residential colleges and science facilities as well as plans for a new building for the School of Management. These new buildings will add to the physical footprint of Yale and inevitably increase energy demand.

Opportunity: A comprehensive framework plan effectively integrates land use, landscape, water use and runoff, transportation, and utilities infrastructure. Materials more sensitive to life cycle impacts can be integrated when energy demand, water use, and raw material consumption are reduced. The end result is a built environment that is innovative, comfortable, safe, and livable.

Recent campus construction offers several positive models: 32-36 Edgewood Avenue (Sculpture Building and Gallery) and Kroon Hall are Leadership in Energy and Environmental Design (LEED) Platinum Certified.[3] The Malone Center achieved LEED Gold certification, as did Rudolph Hall and the Loria Center. Renovations at 10 Amistad Street and Sterling Hall of Medicine C and I achieved LEED Gold for Commercial Interior. The Class of 1954 Chemistry Research Building achieved LEED Silver Certification.

Yale has made a commitment to make sustainability a focus for every new construction and renovation project. To do so will require attention in the design stage to reductions in greenhouse gas emissions, water use and discharge, and construction and demolition debris. Energy conservation measures, sustainable land use, and many other efforts will also be taken into consideration.

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2 Yale's property outside of the 330 acres of Central Campus and the Medical Campus includes a 515-acre golf course and nature preserve, 100 acres of athletic fields, and the newly acquired 136-acre West Campus.

3 The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.

Goals

1. All new building construction will be, and comprehensive renovation projects will generally be, designed to LEED standards of at least Gold rating or above. They will also conform to the Yale University Design Standards Section on "Sustainable Design Requirements" adopted in 2009. Projects of limited-scope and small-scope construction that do not qualify for LEED certification will conform to the Yale University Sustainable Design Requirements.

2. All construction and renovation projects will achieve the goals set forth in other sections of this plan for custodial services (Green Cleaning Standards), water management, energy conservation, environmental health, waste management, transportation, procurement, and land management.

3. The University Planner will publish a supplement to the Yale Framework for Campus Planning entitled "A Sustainability Supplement: A Guideline for Campus Planning & the Built Environment" by June 30, 2013.

4. All Yale Project Managers and Planners will be required to be certified as a LEED Green Associate. Yale will support the training process and continuing education required to maintain this accreditation by June 2013.

Waste Management

Challenge: Yale discards approximately 6,000 tons of waste annually at a cost of more than $2.3 million.[4] This equates to 690 pounds of waste per capita. This does not include waste produced from renovations and construction. Currently, the University's municipal solid waste stream is made up of approximately 25% organic material and approximately 75% manufactured products that include potentially recyclable or re-usable materials. Many of these waste categories require separate and often distinct collection and disposal methods.

Opportunity: Yale can build on its current efforts to reduce consumption, increase recycling, and focus on re-purposing materials that typically go into the municipal solid waste stream. As of 2009, Yale recycles 21% of its overall waste. This includes cardboard, mixed paper, cans, glass bottles and scrap metal. Another opportunity in which the University can reduce waste is to encourage green purchasing, which will lead to reduced packaging and the procurement of more recyclable materials.

On an annual basis Yale captures and recycles 100 tons of electronic waste, representing

4 Waste removed from Yale-owned and -operated spaces. Does not include leased space or space managed by University Properties.

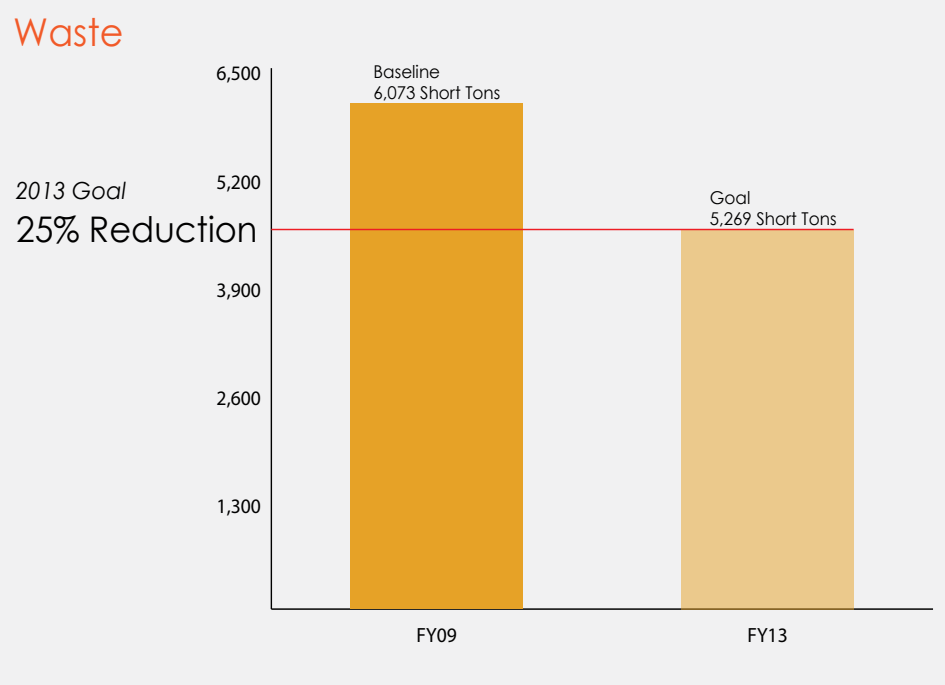
an ever expanding regulated waste stream. Yale community members are encouraged to properly dispose of electronic waste through the Office of Environmental Health and Safely.

Goals

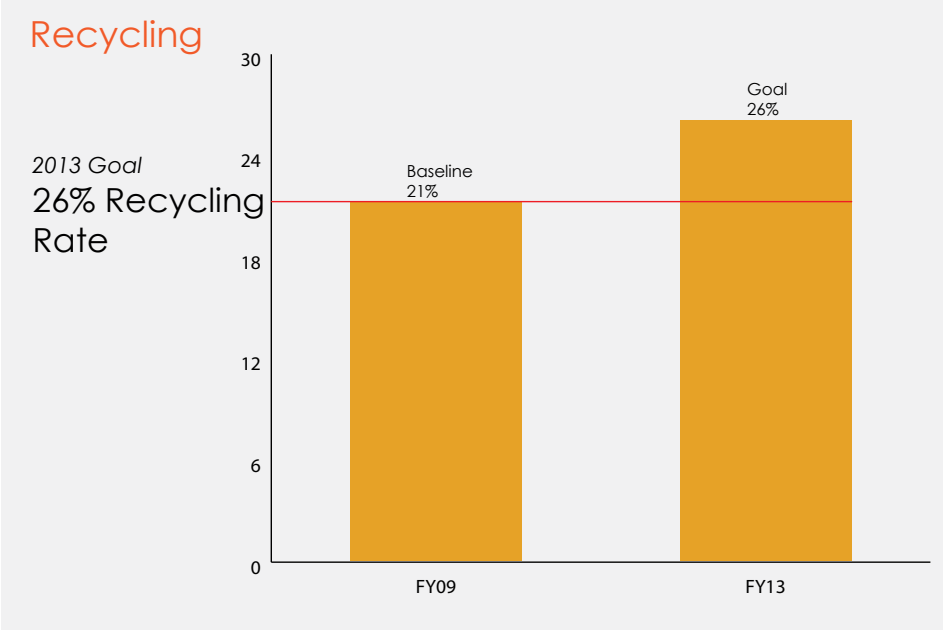
1. Decrease Yale's municipal solid waste by 25% by June 30, 2013.

   Project: Establish a Waste Management and Recycling group in Summer 2010 to oversee and streamline pickup processes.

Waste Reduction (in short tons)



Recycling Rate (in percentages)



2. Increase Yale's recycling rate by 25% by June 30, 2013.

   Project: Implement a system to track recycling performance by major departments, other customers, custodial staff, and haulers.

   Project: Develop and implement a comprehensive recycling outreach campaign with Yale's waste reduction goal and increased recycling rate target as the motivator; this is not unlike the University's Greenhouse Gas reduction goal.

3. Increase by 20% the amount of bulky waste diverted from the municipal solid waste stream for subsequent "reuse" by June 30, 2013.

   Project: Expand a "reuse program" that will include office furniture and supplies, lab equipment, operations equipment and materials, and "Spring Salvage" items.

   Project: Expand upon currently successful "Spring Salvage," in which items from departing students are collected, sorted, and donated to local not-for-profit and charitable organizations.

Transportation

Challenge: Yale's 2009 transportation survey revealed that of the University's 21,000 faculty, staff, and graduate student commuters 22% use mass transit, 23% walk, 8% commute by bike, 5% rideshare, and 2% telecommute. The remaining 39% drive alone, which results in the need to build, maintain, and lease parking spaces throughout New Haven at significant cost.

Opportunity: Yale envisions a campus in which it becomes an easy and obvious choice to travel by foot, bike, or public transportation. This includes a campus with an expanded shuttle system that provides safe, convenient, reliable service to all areas of campus, and that links better to public transportation hubs. For those who do use a car to travel to campus, there is a robust carpooling program. Once commuters arrive on campus they leave their cars parked all day, as it is much more convenient to walk, bike, or use the shuttle to move around campus.

Goals

1. Establish a Transportation Master Plan by June 30, 2011.

2. Have no net increase in parking spaces on University-owned or -leased property beyond those already planned from now until 2013.

3. Measure and benchmark Yale's transportation-related carbon footprint by June 2011.

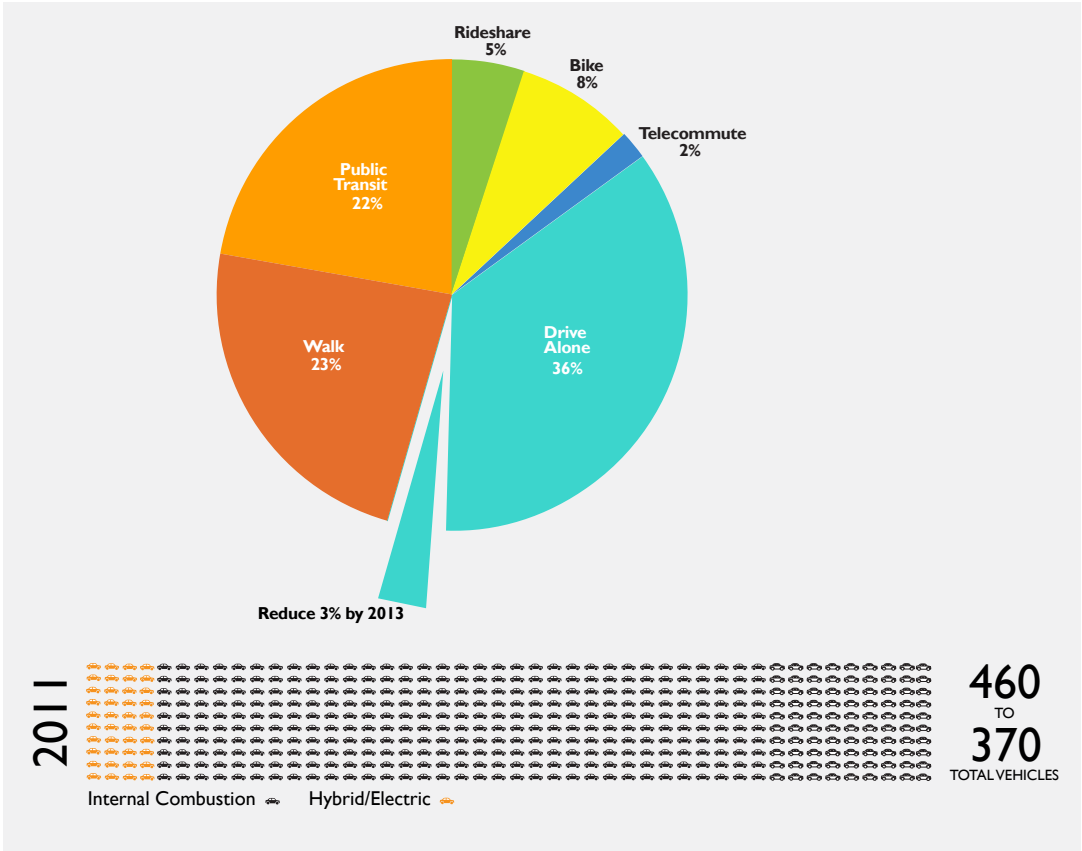
4. Pilot a teleworking initiative during FY2011 and continue to explore other flexible work arrangements where appropriate.

5. Reduce reliance on single-occupancy vehicles for travel to and from campus by 1–3% by 2013.

   Project: Reconfigure Yale Shuttle service to make it more convenient, and increase ridership by June 2013.

6. Reduce University fleet by 80 to 100 vehicles by June 2011.

Commuting Transportation Mode (faculty, staff, and graduate students)



Yale Fleet* (number of vehicles)

*Departmental-owned and -operated vehicles, including some but not all Yale Shuttle vehicles.

7. Assess the impacts of internal deliveries around campus, and then by June 30, 2011 recommend changes to the current system to reduce those impacts.

Food and Dining

Challenge: Yale Dining operates the University's 12 college dining halls and Commons as well as the dining halls at the Hall of Graduate Studies, the School of Management, the Divinity School, the Klein Biology Tower, and the School of Medicine. Yale Dining also operates the Thain Family Café, the Durfee Sweet Shop, and convenience stores in the Payne Whitney Gym and at 221 Whitney Avenue.

There is no single solution for sustainable food – each type of product must be evaluated separately. In this context, sustainable food at the institutional scale requires significant effort to meet the demand for quality, quantity, regional, and seasonal limitations. Opportunity: Sustainable food sourcing continues to grow regionally and nationally.

Sustainability criteria in food sourcing: striking the balance

Local:	Increase use of food produced within 300 miles of the Yale campus.
Eco-sensitive:	Use food produced with minimal chemical input to ensure the least possible damage on ecosystem and human health.
Humane:	Be attentive to healthy, comfortable conditions for animals.
Fair:	Work with suppliers that are sensitive to fair labor conditions for their employees.

Sourcing food has environmental, social, and financial implications. These include how food is grown or animals are raised, processed, transported, and prepared. At Yale we have the opportunity to advance sustainable sourcing in terms of the following elements:

Goals

1. Ensure that 40% of total food purchases meet at least one of four sustainability criteria: local, eco-sensitive, humane, fair.

   Project: Work with suppliers to increase availability of more sustainably raised and harvested meat such as poultry, fish, and beef.

   Project: To the fullest extent possible, ensure that seafood purchased in bulk for use in the Dining Halls meets sustainably harvested seafood criteria.

2. Reduce the number of truck deliveries through consolidation and bulk purchasing by June 30, 2010.

3. Eliminate use of certain harmful chemicals such as phosphates and develop best practices for chemicals, disposables, paper, uniforms, and kitchen equipment. Revise purchasing guidelines to capture best practices by June 30, 2011.

4. Reduce the pre-consumer and post-consumer solid waste produced in each dining hall by 30% below 2009 levels by June 30, 2013.

5. Achieve by June 2013 the goal that pre- and post-consumer food waste generated within University-managed dining halls and kitchens will be composted.

   Project: Collect and transport food waste to composting facility.

   Project: Establish contracts with vendors for "take-back" of products or components, and for minimization of packaging.

   Project: Reduce quantity of single-use products (e.g., paper towels, bottled water) purchased by the University.

   Project: Advance better understanding of sustainable food and dining at Yale and within the Yale community.

Environmental Health and Safety

Challenge: Environmental Health and Safety has the responsibility of ensuring compliance with myriad regulatory and legal requirements. In a community of more than 26,000 members, it is a continuing challenge to reduce injuries, accidents, and environmental impact.

Opportunity: Environmental Health and Safety can continue to move beyond compliance as a major contributor to Yale's sustainability efforts and strive for reducing Yale's environmental impacts beyond those required by state and federal regulations.

Goals

1. By June 2012, implement a plan to reduce laboratory-related waste and energy use, and to promote the use of safer research materials.

2. Expand the Green Labs Certification program to 50% of the labs by June 2011, and to 100% by June 2012.

   Project: Complete energy consumption testing on representative laboratory equipment.

   Project: Revise key Environmental Health and Safety training modules to incorporate sustainable lab practices, where feasible.

3. Develop a chemical inventory system by June 2013.

   Project: Characterize campus inventory of laboratories (~2,600) by research discipline, equipment, reagents, and waste by June 2013.

4. Develop a University-wide stormwater discharge reduction goal and strategy by 2013.

   Project: Complete a comprehensive assessment of campus stormwater runoff by characterizing and digitizing watershed surface conditions and features that lead to flow characteristics (i.e., pavement, grass, garden).

Earth
Systems

Energy and Greenhouse Gas Emissions

Challenge: Yale currently emits approximately 240,000 metric tons of carbon dioxide equivalent ($MTCO_2e$), reflective of our heating, cooling, and electricity demands. Yale's power plants provide utility services to over 11 million square feet of facilities, with varying energy needs from research laboratories and academic facilities to administrative and residential buildings. As our reliance upon technology increases, so does our demand for electricity. For example, there are an estimated 24,000 desktop and laptop computers in use at Yale, with a growing number of servers (1,000+) and high-power computing (1,213) nodes.

Opportunity: The University continues to upgrade technologies when possible, but there is now a concerted effort to encourage mindful behavior among students, faculty, and staff to reduce our greenhouse gas (GHG) emissions. The University is home to faculty, researchers, and research centers that are seeking to augment our understanding of climate change and the actions it will require. This comprehensive scope of climate action, combining local implementation and the broader spectrum of research, will continue to make Yale a leader in the field of climate change among institutions of higher education.

Goals

1. Make progress toward the University goal of reducing GHG emissions to 10% below 1990 levels by 2020, a 43% reduction from 2005 levels.

Emissions Reduction (in metric tons of CO_2e)

2. Based on the 2005 building gross square footage benchmark, reduce energy consumption 15% by 2013; this represents a 4% reduction from FY2009.

   Project: Install occupancy sensor lighting in any building that currently does not have such devices.

Project: Target several buildings each month where energy consumption is greater than acceptable benchmarks (kW/sq. ft., Btu/sq. ft., etc.), and have Facilities 'triage' those facilities.

Project: Assign Controls and Maintenance staff to monitor energy consumption by building, and annually identify buildings with persistent substandard performance.

Project: Establish an aggressive outreach program to raise awareness and promote energy conservation via educational programming and building specific training programs. Develop access to real-time energy performance data. Explore behavior-change strategies and energy-use feedback systems to enhance energy reduction.

3. Increase the supply of energy from on-campus and off-campus renewable sources, with a target of Yale obtaining 25% of its energy from such sources by 2020; the implementation of on-campus renewable energy projects would result in an annual reduction of 10,000 metric tons of CO_2e emitted.

   Project: Evaluate and expand where possible the use of ground-source heat pumps, fuel cell technology, and other emerging technologies with long-term scalability potential.

   Project: Evaluate and install solar hot water systems for application at multiple flat-roofed facilities by 2012.

4. Reduce workstation electricity consumption by 40% by June 2013.[5]

   Project: Information Technology Services (ITS) will aggressively expand the Managed Workstation Program and educate about the benefits of powering down at night and on weekends.

   Project: Identify practical solutions to manage in the most e∞cient way electrical consumption from high-speed computing by June 2013.

Water Use

Challenge: Yale's campus currently consumes over 600 million gallons of potable water annually. The largest demands are for power plant cooling towers, sanitation, residences, laboratories, research, food preparation and serving, and irrigation. At Yale, energy is used to cool significant quantities of water to provide campus buildings with air conditioning and to reduce humidity levels in laboratories, libraries, museums, and research facilities.

Exacerbated by the prospect of increased drought caused by global warming, the potential for unprecedented stress on the available supply of clean freshwater is a vulnerability with which the University must grapple.

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5 The reduction is the equivalent to approximately 2.5 million kW per year or 6.6 million pounds of CO^2.

Opportunity: By focusing on the water inputs and internal uses, Yale can reduce the quantity and increase the quality of water output to the New Haven sewer system and the Long Island Sound beyond that. This will provide Yale with the opportunity to be a model for efficient water use by developing a strategy for sustainable water use and planning into all areas of the University's operations.

Goals

1. Develop a Water Management Plan by June 2013.

   Project: Phase in installation of meters so that by 2013, 100% of Yale's buildings have up-to-date water meters that enable accurate monitoring of building water usage.

   Project: Expand and further develop water indicators to track and measure data on an annual basis by June 2011 (i.e., measuring water use by type, such as landscaping, irrigation, residential use, dining, administrative, etc.).

Land Management

Challenge: A university's identity is inseparable from the campus landscape. Yale functions within an urban landscape and in turn shapes the downtown community of the city of New Haven. Yale's land use and management of these areas impact the local ecosystem through its use of water, landscaping applications such as pesticides and fertilizers, campus planning and construction, and stormwater management. Yale recognizes the need to maintain a healthy relationship between its vibrant campus and the natural ecosystem within which it exists—taking into account the wastewater it discharges, the resources it uses, and the species that co-inhabit the land.

Opportunity: An ecosystem services framework will shape and guide land and water management. Land development and maintenance protocols shall be developed in the context of an overall ecosystem and shall strive to conserve water, promote biodiversity, and minimize environmental impact. Ecosystem services are benefits derived from the natural environment and include regulation of climate, erosion control, cleansing of air and water, regulation of water supply, mitigation of hazards, protection of wildlife and habitats, decomposition of waste, provision of food and raw materials, and support of health and cultural benefits for humans.

Goals

1. Establish an Ecosystem Services Plan by June 30, 2013.

   Project: Conduct a biodiversity, watershed, and land use analysis by June 2012.

2. Develop University-wide sustainable landscape management standards that will reduce impacts on the local landscape and environment by January 30, 2012.

   Project: Conduct research on organic applications and execute pilot sites around campus by 2012 to determine opportunities for native and low-maintenance species.

Administrative Systems

Finance and Business Operations

Challenge: The division of Finance and Business Operations oversees a wide variety of administrative processes that consume substantial environmental, economic, and human resources. These processes include accounting, payroll, expense reimbursement, invoice processing, grant proposal development and tracking, and general administrative management functions.

Opportunity: There are opportunities for greater e∞ciency, particularly within administrative processes, as well as outright reduction of resource consumption.

Goals

1. Ensure that sustainability is a mandatory and measurable element in the planning and execution of Finance and Business Operations by June 30, 2011.

   Project: Streamline systems to reduce resource use, raise awareness about sustainability with user groups, and then build in explicit performance goals for Finance and Business O∞ce staff related to sustainability for the FY2011 goal-setting process.

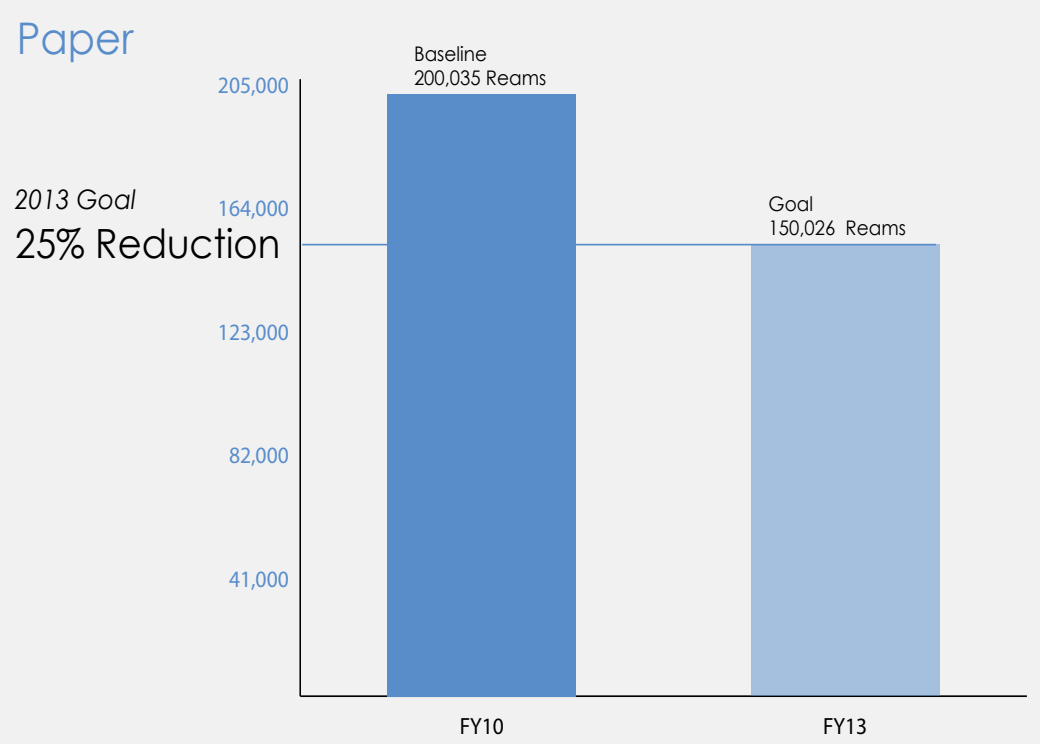
   Project: Centralize the receipt of invoices for processing through Accounts Payable and implement electronic workflow for routing and approval.

   Project: Establish and promote model business processes as "certified paperless" or a similar qualification to reinforce the benefits of new standards.

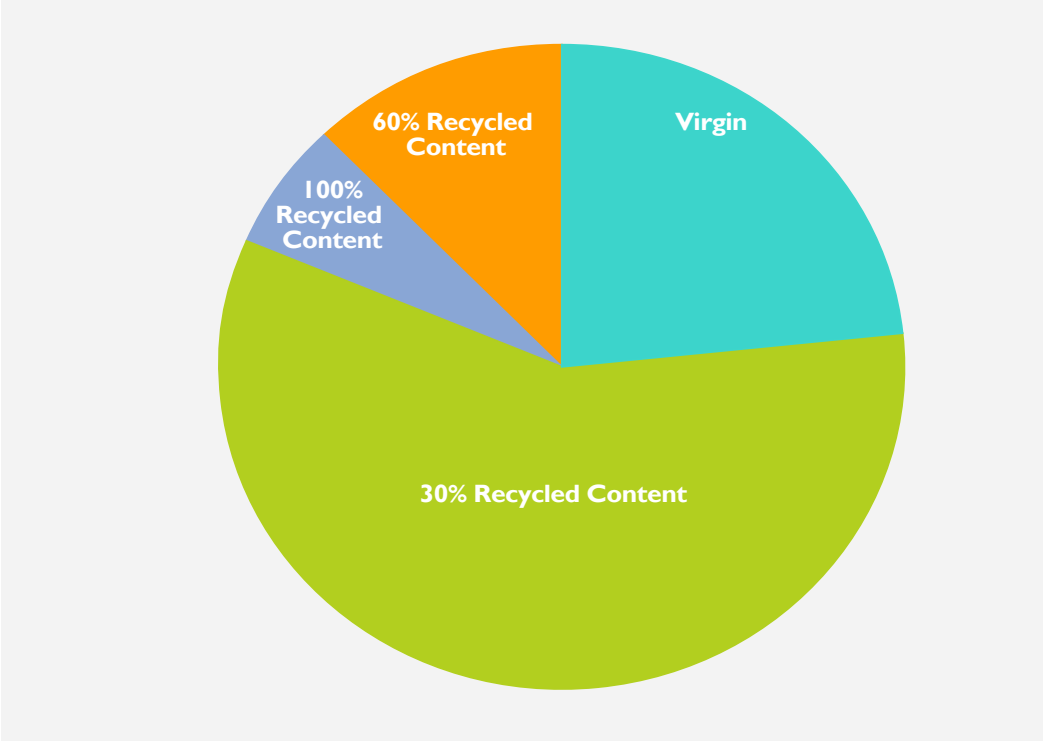
   Project: Establish the University portal (http://www.yale.edu/portal) as the place for faculty, students, and staff to receive internal communications and conduct their administrative activities, thereby replacing the paper-based method of communicating and offering quick access to various Yale websites, tools, and tutorials.

2. Achieve a 25% reduction in the purchase of copy paper for printing and copying by June 2013.

Paper Purchasing
(in reams)



Paper Consumption
(by content type)



Procurement

Challenge: Each year the University purchases approximately $1.5 billion of items ranging from vehicles, o∞ce supplies, and lab equipment to construction materials, food, and computers. The type, quality, and quantity of commodities being procured have far-reaching impacts beyond the borders of the institution.

Opportunity: Yale can improve efficiency and opt to procure fewer goods while adopting sustainable procurement practices that reduce the University's overall environmental impact—from production to disposal. Smart consumption and deliberate disposal will lead to greater e∞ciency and cost savings.

Goals

1. Finalize a set of University-wide Sustainable Procurement Standards for other common-use commodities by September 2010.

   Project: The Sustainable Procurement Standards will be reviewed and updated on an annual basis as product cost and availability evolve.

   Project: Publish by September 2010 a roster of at least 20 commonly used commodities that Yale Procurement recommends as greener. Aggressively market the use of those items to purchasing agents around the campus.

2. Assess the impacts of external deliveries to campus, and then by June 30, 2011, recommend changes to the current system to reduce those impacts.

Cleaning and Maintenance

Challenge: Yale's buildings are cleaned by a team of 360 custodial staff who are supplemented with custodial service contractors. Traditional cleaning processes expose students, faculty, staff, and visitors to chemical pollutants, impact the natural environment through the use of hazardous chemicals, consume energy and water, and contribute to the waste stream.

Opportunity: A green cleaning program incorporates environmentally benign cleaning products with appropriate equipment, tools, and procedures that limit environmental and human health impacts. A successful green cleaning program embraces the cleaning process in its entirety and includes an emphasis on education and training of workers.

Goals

1. In maintaining Yale's buildings, adhere to the Yale Green Cleaning standards where available so that green cleaning products are used in all Yale-owned and -occupied buildings. Reduce to the extent possible the use of chemicals in the cleaning maintenance process.

2. As leases for off-campus space are renewed, efforts will be made to have the Yale standards observed.

Education and Engagement

Educating and Engaging the Yale Community

Challenge: The success of achieving the goals in the plan will require the active contribution of every member of the community. We cannot delegate responsibilities to a handful of departments. Rather, we must change behaviors as well as policies and practices.

Opportunity: Inspire the entire campus to do their part in making Yale a model of sustainability, and educate all about practices that can benefit their lives beyond Yale. Most people want to do the "right thing," and many are eager for concrete knowledge on what to do, and why. For students, there are opportunities to integrate sustainability learning into freshman orientation and to make sustainability a part of the fabric of their residency on campus. Online and learning center activities aimed at balancing environmental, social, and financial priorities will be available to employees throughout the University. Specific training programs and materials can be developed for groups such as custodial services, grounds maintenance, design and construction, ITS, and procurement. This knowledge, once acquired, will enable these employees to educate their customers. Already ten departments have designated staff with explicit sustainability responsibilities as part of their portfolios; this number can increase.

Goals

1. Launch the next phase of outreach programs to educate the community about the plan and to engage them in its success.

2. Pilot a Yale Green Workplace certification program by September 2010 whereby individual departments can get recognition for their program in meeting sustainability goals. Make the certification program available to all units by January 2011.

3. Develop professional training programs tailored to specific departments; by June 2011 partner with procurement and grounds maintenance to introduce department-specific programs.

4. Introduce a Microloan fund of $100,000 so that departments can request small funds for sustainability projects that will have a positive return on that investment within three years.

5. Integrate sustainability as a topic in new employee and student orientation by June 2011.

6. Create online sustainability training modules by January 2012.

7. Develop and implement behavior change strategies as they relate to goals throughout the Sustainability Strategic Plan.

Sustainability Task Force Members

Chair: Linda Koch Lorimer, Secretary
Convener: Julie Newman, O∞ce of Sustainability

Louis Annino, Facilities: Custodial, Waste, Water, Grounds, Energy
Brenda Armstrong, Environmental Health and Safety
John Bollier, Facilities: Custodial, Waste, Water, Grounds, Energy
Thomas Conroy, O∞ce of Public Affairs
Laura Cruickshank, University Planning
Mark Francis, West Campus
John Gambell, University Printer
Chris Kielt, Information Technology Services
Janet Lindner, Administrative Services: Transportation
Christopher Mihok, Procurement
Stephen Murphy, Finance and Business Operations
Joseph Paolillo, Information Technology Services
Peter Reinhardt, Environmental Health and Safety
Cary Scapillato, Finance and Business Operations
Stephanie Spangler, O∞ce of the Provost
Rafi Taherian, Yale Dining

O∞ce of Sustainability Support
Keri Enright-Kato, Project Manager
Melissa Goodall, Assistant Director
Sheila McCreven, Education and Outreach Manager

Other University Support
Virginia Chapman, Facilities Sustainable Initiatives
Kristina Chmelar, University Planning
Robert Ferretti, Waste Management and Recycling
Holly Parker, Sustainable Transportation Options

Sustainability Task Force Fellows
The Yale Sustainability Task Force Fellows is a group of students that were employed to assist the members of the Task Force with research on setting goals and with steps toward implementation.

Kenneth Castaneda, Information Technology
Changxin Fang, Waste Management
Matthew Goldstein, Yale West Campus
Kathryn Harris, Editorial Support
Jacob Iversen, Water Management
Aram Marks, Land Management
Austin Shiner, Food and Dining

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Yale Office of Sustainability
www.yale.edu/sustainability