



The progress continues...

2012

Yale SUSTAINABILITY

SUSTAINING OUR FUTURE

Introduction

As a University known for excellence and global leadership, Yale has declared its commitment to sustainability and established specific strategies and goals that are both visionary and achievable. The forty-three goals outlined in Yale's *Sustainability Strategic Plan 2010-2013* improve the University's environmental footprint and enhance the quality of life on campus while streamlining systems and processes to save resources, time and money.

In our second year of implementation we have demonstrated that our efforts have taken root across the University, leading to our goals to be achieved. However, we must call upon the Yale community to help us reach our remaining goals and to envision new and challenging goals for the future.

We invite you to explore this report and learn how Yale University is working to create a more sustainable future for our campus, our community, and the world.

Scope

This publication details the progress we have made toward our 2013 goals. The information in this report covers fiscal year 2012 (July 1, 2011 - June 30, 2012) and focuses on Yale's operations, administrative systems, resource consumption, and education and engagement efforts. Please refer to the *Sustainability Strategic Plan 2010-2013* for a description of each of the forty-three goals. The image to the right summarizes, at a glance, our progress toward achieving each goal with the numbers corresponding to the original document organized by topic. While this image represents all of our goals, the body of this report provides details on a few, in order to demonstrate both our successes and challenges. For a more comprehensive review of progress toward all of our sustainability goals and targets visit www.yale.edu/sustainability.

Key

Throughout the report you will find the following icons. These icons are a visual representation of Yale's progress toward achieving the goals set in the Sustainability Strategic Plan 2010-2013.

-  We have achieved our goal.
-  We are on track to meet our goal.
-  We can do better.
-  We are re-evaluating this goal.



PROGRESS

We can do better



Goal on track



Goal achieved



Campus Systems

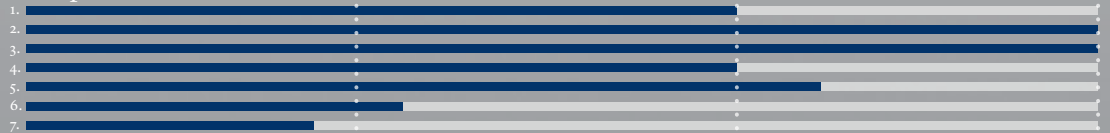
Campus Planning, Building Design and Construction



Waste Management



Transportation



Food and Dining

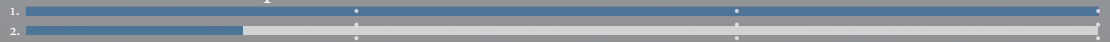


Environmental Health and Safety

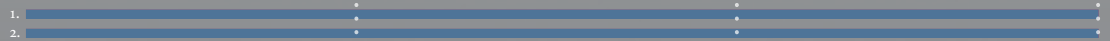


Administrative Systems

Finance and Business Operations



Procurement



Cleaning and Maintenance



Earth Systems

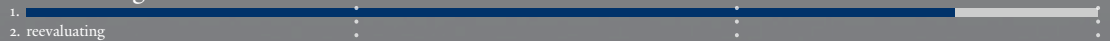
Energy and Greenhouse Gas Emissions



Water Use

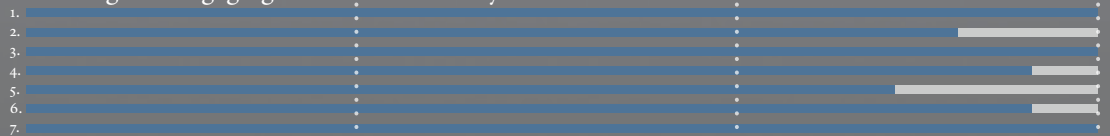


Land Management



Education and Engagement

Educating and Engaging the Yale Community



WASTE MANAGEMENT

Municipal Solid Waste (MSW) has been reduced by 24% since fiscal year 2009. Much of this success is attributed to our diversion efforts through reuse, compost and recycling. In support of this goal, Yale Dining successfully composts 95% of all pre- and post-consumer food waste in residential dining halls and kitchens. We will continue to focus our attention on reducing the total volume of materials leaving campus.



Yale is on target. 

GOAL

PROGRESS

CAMPUS SYSTEMS

Campus Planning, Design, & Construction

All new building construction and comprehensive renovation projects will be designed to a minimum of LEED Gold standards.



All new or planned buildings and renovations projects have been designed to a minimum standard of LEED Gold rating.

All Yale Project Managers and Planners will be certified as LEED Green Associates by June 2013.



To date, 77% of all Yale Project Managers and Planners have been certified as LEED Green Associates. Continuing education is also provided for credential maintenance.

Waste Management

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



To date, we have reduced Yale's waste by 24%. We are on target to achieve our goal to reduce municipal solid waste by 25%.

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



We have achieved our goal to increase our recycling rate by 25%. To date, our recycling rate is 27%.

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



This goal is currently being re-evaluated as we plan for the next Sustainability Strategic Plan.

Transportation & Commuting Goals

Establish a Transportation Master Plan by June 30, 2011.



Sustainable transportation principles and a proposal for a new transportation hierarchy have been submitted.

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



We have reduced single occupancy vehicles for travel to and from campus by 1%.

Reduce University fleet by 80-100 vehicles by June 2011.



We have reduced the fleet by 32 vehicles. The current fleet includes 416 combustion vehicles, 24 hybrid (gasoline/electric) vehicles, 4 electric vehicles, and 1 condensed natural gas (CNG) vehicle, totaling 445 vehicles.

CAMPUS SYSTEMS

Food & Dining

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

➔ Currently 39% of total food purchases meet one or more of the following sustainable criteria: Local, Organic, Humanely Raised, Natural (no RBST or antibiotics), Cage free, Fair Trade, Marine Stewardship Council (MSC) certified. For animal proteins, over 60% are sustainably sourced.

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

✔ Prior to 2010, Yale Dining sourced from 57 regular suppliers resulting in approximately 124 trucks coming to campus on a weekly basis. We now utilize 23 suppliers regularly, 10 of which support retail alone. These suppliers send approximately 35 trucks to campus weekly, reducing truck deliveries from 1,650 to less than per 300 week.

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

✔ To date, 95% of all pre- and post-consumer food waste in residential dining halls and kitchens is composted.

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.

✔ The use of chemicals containing phosphates and/or chlorine have been eliminated. Training on the use of chemicals, waste disposal and equipment with regard to sustainable practices is completed annually.

Environmental Health and Safety

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

✔ A Waste Minimization Plan has been finalized. Successful projects have been documented in both the written plan and on the Environmental Health and Safety website, to highlight best practices.

Develop a chemical inventory system by June 2013.

➔ A small number of labs are piloting ChemSW software to better track chemical inventories. The software program keeps container-level records using a bar coding system that integrates with current stockroom operations. Based on the successful pilot, we will continue to expand the ChemSW system while simultaneously launching a simplified lab-level inventory system for the rest of campus. Ultimately, these will be combined to produce a complete system-wide inventory.

PAPER

Campus paper consumption from fiscal year 2010 to 2012 has decreased 2.4%. To achieve the 2013 reduction target of 25%, a greater emphasis on best practices for paper reduction must be deployed. A Paper Committee has been established to develop tools and tactics for meeting reduction target.

31 Seconds

Every 31 seconds a ream of paper is ordered at Yale.



Annual Purchase History

2010: 208,401 reams

2011: 211,033 reams

2012: 203,236 reams

goal: 156,301 reams

GREENHOUSE GAS

We have made progress toward the University goal of reducing greenhouse gas emissions to achieve a 43% reduction from 2005 levels. As of fiscal year 2012, Yale has reduced its emissions 16% from 2005 levels despite a 12% increase in campus size and 9% increase in population.



Where do our emissions come from?

Our greenhouse gas emission reduction goal includes two on-campus power plants and purchased electricity. Emissions from Scope 3 are collected annually, but are not currently included in the University's reduction strategy.

Scope 1



67%

Mobile and stationary combustion, process and fugitive emissions.

Scope 2



11%

Indirect emissions from purchased electricity and purchased co-generation.

Scope 3



22%

Employee commuting, air travel, and paper consumption.

Yale is on target.

ADMINISTRATIVE SYSTEMS

Procurement

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



An assessment of deliveries has been completed. As a result, office supply deliveries to campus now occur four days a week rather than five.

EARTH SYSTEMS

Energy & Green House Gas Emissions

Based on the 2005 building gross square footage benchmark, reduce energy consumption 15% by 2013; this represents a 4% reduction from fiscal year 2009.



Based on the 2005 building gross square footage baseline, we have reduced energy consumption 13% representing a 4% reduction from fiscal year 2009.

Increase the supply of energy from on-campus and off-campus renewable sources, with a target of obtaining 25% of our 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 CO₂e emitted.



We are currently on track to achieve the goal of obtaining 25% of our energy from on-campus and off-campus renewable sources by 2020.

Water Use

Develop a Water Management Plan by June 2013.



Water meters to enable accurate monitoring of direct building water usage has been installed in all campus buildings. We are currently on track to develop a Water Management Plan by June 2013.

Land Management

Establish an Ecosystem Services Plan by June 30, 2013.



An ecosystem services approach to campus management at Yale was studied, developed, and incorporated into the Sustainability Supplement to the Framework for Campus Planning.

EDUCATION AND ENGAGEMENT

Educating and Engaging the Yale Community

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

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

Create online sustainability training modules by January 2012.

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

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



The Office of Sustainability promotes four Green Certification Programs (workplace, events, labs and athletics), runs monthly sustainability campaigns to encourage sustainable behaviors, and recently launched a Citizen Science Project with the Yale Peabody Museum to broaden its engagement portfolio.



Waste management trainings for all custodial employees were held throughout the 2012 fiscal year. Additional training modules, materials, and resources are currently being developed to enhance safety and performance.



Building occupancy training modules have been developed to engage building occupants on how to more sustainably use their specific building. Tips on energy consumption, water consumption and proper waste disposal are provided.



All incoming freshman receive a letter from the Office of Sustainability that highlight the University's sustainability efforts. All new Yale employees receive a "Welcome and Introduction to Sustainability" letter during their first week of employment. In Fall 2012, sustainability sessions were integrated into Freshman Counselor training.



During the fiscal year 2012, funding was awarded to two projects. Repayments from the previous year's projects are replenishing the funds. A robust marketing campaign is being launched to increase the quality and quantity of the applications.

CERTIFICATIONS


The Yale Green Workplace Certification Program is in its third year, with 38 workplaces certified to date. During fiscal year 2012 the Vice-President's Division made an effort to certify all units. Currently, Finance and Business Operations are pursuing the same goal. The Green Events Certification Program is also in its third year, and has nearly doubled the number of Green Certified Events annually. In 2012, all of the Yale College Reunions were Green Certified at the Platinum level, the highest level achievable.

59 events at Yale have been certified green since the program began in 2010.

Event History

2010: 11 events
2011: 16 events
2012: 32 events

4 types of green certification programs
athletics
events
labs
workplace

Yale is on target. 

why we care:



Made from recycled materials.

Yale Office of Sustainability
<http://sustainability.yale.edu>