

Pomona College
Sustainability Annual Report

2009-2010

*Sustainability Integration Office
President's Advisory Committee on Sustainability*

Introduction

In recent years, Pomona’s achievements in sustainability efforts have been notable and celebrated - from high rankings in national reports and coverage in campus communications to broad-based support for the creation of the College’s Sustainability Integration Office and its varied programs and projects. As the campus community continues to develop and implement new efforts and begins to take a longer-term perspective on planning for sustainability, it becomes even more important to take a look back - to catalog our efforts and to periodically assess our progress.



This report provides a summary of the College’s sustainability efforts in a variety of areas - from waste and water to education and administration. Each section contains a variety of data points that relate to Pomona’s impacts in that area for the 2009-10 year (July 1, 2009 to June 30, 2010), along with information on our progress towards the goals stated in the College’s draft Sustainability Action Plan (to be voted on by the Board of Trustees in late 2010). Each section also includes an appended list of the College’s varied sustainability programs, projects, policies, and procedures, both ongoing and new for the 2009-10 year.

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Success in sustainability programs and projects would not be possible without supported organizational infrastructure, an effective set of policies, and the strong commitment of the College administration. Each of these is an integral part of the College's strategy in moving forward with sustainability.

2009-10 Programs

>> **Sustainability Action Plan** During the 2009-10 year, the President's Advisory Committee on Sustainability (PACS) and the Sustainability Integration Office (SIO) completed a final draft of the Sustainability Action Plan, with a variety of 10-year goals and strategies for sustainability. This document will go to the Board of Trustees for discussion in October and December 2010.

>> **Sustainability Annual Report** The first-ever Sustainability Annual Report was released in September 2009, detailing the previous year's environmental impact data and efforts. This is the second cycle of that report.

>> **Collaboration with other institutions** The SIO met with a variety of colleagues from other campuses throughout the year, including USC, UCLA, CalTech, Loyola Marymount, and Pepperdine.

>> **President's Sustainability Fund (PSF) projects** During 2009-10, the PSF funded a projects including residential composting, dual-flush toilet retrofits, sustainable landscaping, and shower timers.

>> **Recognition and awards** Pomona was recognized for its campus sustainability efforts, including an A- (the highest grade given) in the Sustainable Endowment Institute's Green Report Card, "extra credit" in the Sierra Club's Cool Schools rating system, and a spot in Forbes' America's Greenest Colleges list.

>> **New sustainability position** Late in the year, the College created a new Sustainable Foods Coordinator position in Dining Services.

Ongoing Programs

>> **Sustainability Integration Office (SIO)** This office, directed by Bowen Close '06, develops, administers, coordinates, and assesses sustainability programs and projects on campus. The office also includes year-round student staff and oversees ReCoop/Clean Sweep and Green Bikes.

>> **President's Advisory Committee on Sustainability (PACS)** This committee produces yearly recommendations for the President and administers the President's Sustainability Fund. In 2009-10, this committee also generated the Sustainability Action Plan.

>> **President's Sustainability Fund (PSF)** Since 2007 this fund has provided a total of \$30,000 to be distributed in grants to students for on-campus sustainability projects.

>> **Presidents Climate Commitment** The College has been a signatory of the Presidents Climate Commitment since 2007. This nationwide organization coordinates climate action by colleges and universities.

>> **Statement of Environmental Policy** This policy statement reiterates the College's commitment to environmental sustainability and requires the College to consider sustainability in budgetary, planning, and curricular decisions.

For more information about ongoing curriculum-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Administration" - "Efforts").

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Existence of consortium sustainability committee	No	No	Yes
Sufficient staffing and resources for sustainability programs	⇒ Sustainable Food Coordinator position added		Yes

Education

As an educational institution, the College is dedicated to increasing awareness of environmental issues. Whether in or out of the classroom, education efforts reach a broad audience of students, staff, faculty, trustees, visitors, prospective students, and others who interact with the campus.

Curricular: 2009-10 Programs

>> **Sustainability in the Curriculum Committee**
The President's Advisory Committee on Sustainability (PACS) formed a small sub-committee of faculty to discuss sustainability in the curriculum.

>> **Sustainability Education in the Liberal Arts Context workshop**
Pomona received a Mellon 23 grant to host a faculty development workshop concerning sustainability education in the liberal arts context. Faculty members from liberal arts colleges around the country gathered for two days to discuss how liberal arts colleges can better integrate sustainability into the curriculum.

Curricular: Ongoing Programs

>> **Environmental Analysis Program**
The Environmental Analysis (EA) Program offers a major, minor, and selection of environmental courses. The Program also hosts lectures, films, field trips, and other events.

>> **The Organic Farm**
The Pomona College Organic Farm is administered by the EA Program and hosts courses throughout the year.

>> **Bernard Field Station**
The Claremont University Consortium's 86-acre biological field station is adjacent to the campuses.

>> **Summer research projects**
In 2010, 11 sustainability-related projects were funded by the Summer Undergraduate Research Program, which includes the Schultz Environmental Studies grant.

>> **Study Abroad programs**
In 2009-10, the Office of Study Abroad offered 14 approved study abroad programs that offered students the opportunity to study a facet of the environment.

Co-curricular: 2009-10 Programs

>> **Fall educational campaign**
In the fall, the Sustainability Integration Office (SIO) and the student group Pomona for Environmental Activism

and Responsibility (PEAR) collaborated on theme months of environmental education, events, and pledges. September was Waste Month, October was Energy Month, and November was Water Month.

>> **Orientation programs**
To facilitate awareness of sustainability during orientation for new students, in 09-10 the SIO conducted green living training for all Sponsors and RAs, distributed materials and checked out laundry racks and compost buckets during the ReCoop Fall Sale, and produced and distributed a new sustainable living guide for students. Student leaders from PEAR spoke at one of the First-Year Class Meetings.

>> **Green Office Program**
The SIO piloted a program that certifies campus offices and departments for reducing their environmental impacts; six offices were certified during the pilot phase and the full program has been launched.

>> **Summer visitor tips**
The SIO developed a brief set of tips for reducing environmental impacts for summer residents and visitors.

>> **Sustainable commencement**
During 2010 Commencement activities, sustainability-related efforts included the use of a biodiesel generator, compostable diningware, and use of recycled paper in printed materials.

>> **Landfill and e-waste trips**
Groups of students toured Olinda Alpha Landfill and the facility where e-waste is handled.

>> **Earth Week events**
The SIO and student groups hosted a variety of Earth Day/Earth Week events, including the 5th Annual Organic Dinner, an outdoor showing of *Planet Earth*, and a booth at the City of Claremont's Earth Day Festival.

>> **Educational materials**
This year, the SIO produced a variety of educational materials including stickers for light switches and recycling bins, mirror films reminding people to conserve water, and cards with information about the campus' recycling program distributed to staff and faculty.

Examples of 2010 research projects
Funded by Summer Undergraduate Research Program

Cultivating youth-earth connections

Sustainable development on the South Pacific

Forging a marginalized community's relationship with environmental policy

>> **Sustainable Claremont partnership** The College has partnered with Sustainable Claremont including participating in the City’s annual Earth Day Festival and co-hosting Sustainability Dialogs, a monthly lecture series.

>> **Community partnerships** The Draper Center for Community Partnerships engages in a wide variety of sustainability-related community programs, including a community food security assessment in local communities and a mentorship program at the Farm.

>> **Publications** In 2009-10, sustainability publications included: a *Sustainability Tour* map, *The Little Green Book* guide to sustainable living on campus, and the College’s first *Sustainability Annual Report*.

>> **Events** Sustainability-related events included the first annual sustainability film festival (“ROOTED: Food and Farming Film Festival”) and lectures given by Maxine Burkett (“In Search of Refuge: Climate Justice and Climate-Induced Migration”), Barbara

Palms-Barber (“Green Jobs for Ex-Offenders”), and Majora Carter (“Greening the Ghetto: How Much it Won’t Cost Us”).



Pomona’s table at the Claremont 2010 Earth Day Festival.

Co-curricular: Ongoing Programs

>> **Orientation Adventure (OA)** OA takes incoming students on a four-day trip prior to the start of the academic year, providing opportunities to connect with the local natural environment.

>> **eNewsletters** Students and faculty/staff can sign up to receive a regular e-newsletter about sustainability efforts,

programs, and events.

>> **On The Loose (OTL)** OTL leads outdoors trips throughout Southern California and the Western Region and educates students about outdoor activities and “leave no trace” practices.

For more information about ongoing education-related efforts, see www.pomona.edu/sustainability (“Initiatives” - “Education” - “Efforts”).

2020 GOALS - How we’re doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
% of courses sustainability-focused	5.5%	<i>Data not available</i>	General increase
% of courses sustainability-related	12.7%	<i>Data not available</i>	General increase
Campus-related projects*	Consistent with 08-09	Consistent with 07-08	General increase
% offices in Green Office Program	7.9%	N/A	30%
% of students taken sustainability pledge**	N/A	N/A	50%
% of staff/faculty taken sustainability pledge**	N/A	N/A	30%
% of students signed up for newsletter	7.9%	<i>Data not available</i>	30%
% of staff/faculty signed up for newsletter	16.9%	<i>Data not available</i>	25%
Sustainability-related campus events*	⇒ Increase over 08-09	Consistent with 07-08	General increase

* General sense of SIO staff and students.

** Pledge is not yet created.

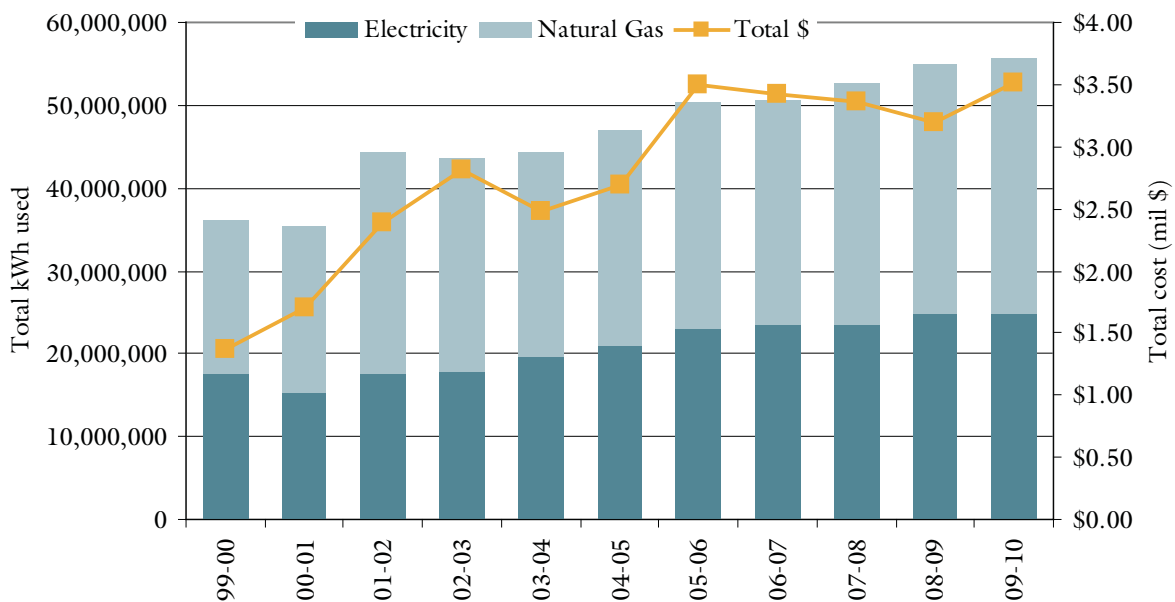
Energy

Energy use constitutes the majority of the College's carbon emissions, pollutants, and resource use. It is also a significant cost for the College, with approximately \$3.5 million spent in 2009-10 on the two main energy sources, grid-source electricity and natural gas. Diesel generators and solar photovoltaic also provide energy for the campus. Energy conservation, efficiency, and renewables will all be major sustainability issues as the College moves forward.

Total Energy Use and Sources (in kWh) *denotes estimated

Year	Electricity	Natural Gas	Generators	Solar PV	Total	Change	Total kWh/sq-ft	Utility cost (\$ mil)
00-01	15,352,381	20,038,475	44,689*	0	35,435,545		27.6	\$1.7
01-02	17,657,717	26,610,231	44,689*	0	44,312,637	25.0%	34.5	\$2.9
02-03	17,865,263	25,781,129	44,689*	0	43,691,081	-1.4%	34.0	\$2.8
03-04	19,579,337	24,693,923	44,689*	1,935*	44,319,884	1.4%	34.5	\$2.5
04-05	20,956,224	26,091,504	44,689*	1,935*	47,094,352	6.3%	35.5	\$2.7
05-06	23,120,009	27,271,151	44,689*	1,935*	50,437,784	7.1%	35.8	\$3.5
06-07	23,391,027	27,255,094	44,689*	92,395*	50,806,644	0.8%	36.1	\$3.4
07-08	23,493,047	29,101,405	44,689	92,395	52,754,975	3.8%	37.4	\$3.4
08-09	24,944,255	30,057,200	54,090	98,211	55,153,756	4.6%	39.1	\$3.2
09-10	24,762,209	30,841,201	405,056	109,127	56,117,593	1.8%	39.8	\$3.5

Electricity and Natural Gas Use and Cost

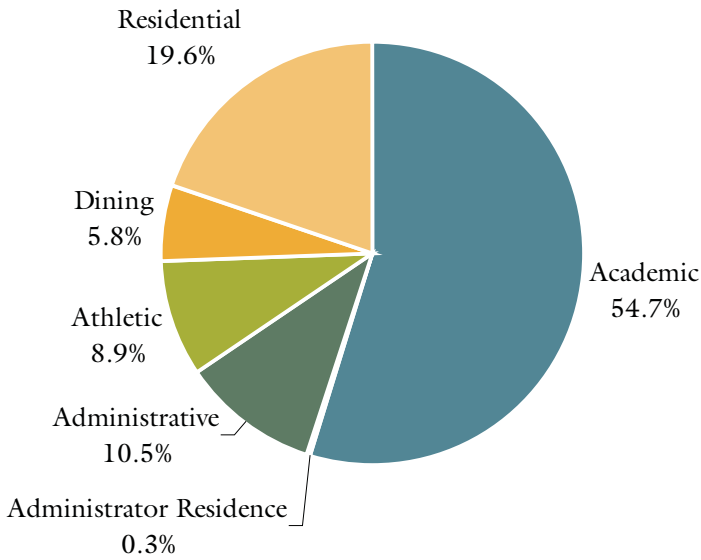


Building Performance BY THE NUMBERS

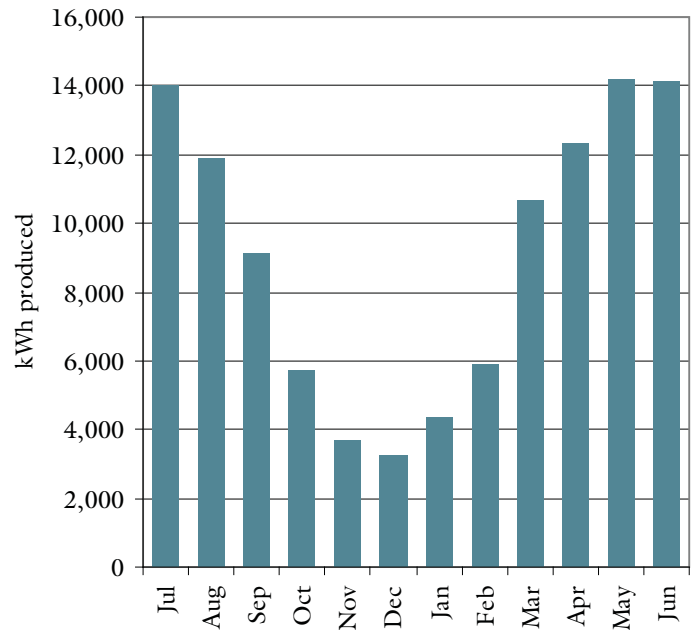
- >> Top five energy intensive buildings:
1. Seaver North
 2. Frank Dining Hall
 3. Seaver Biology
 4. Seaver South
 5. Cowart IT

- >> Academic and athletic facilities slightly reduced their total energy use in 2009-10, while residential and administrative facilities significantly increased their total energy use.
- >> The largest total reductions took place in Bridges Auditorium and Mudd-Blaisdell.

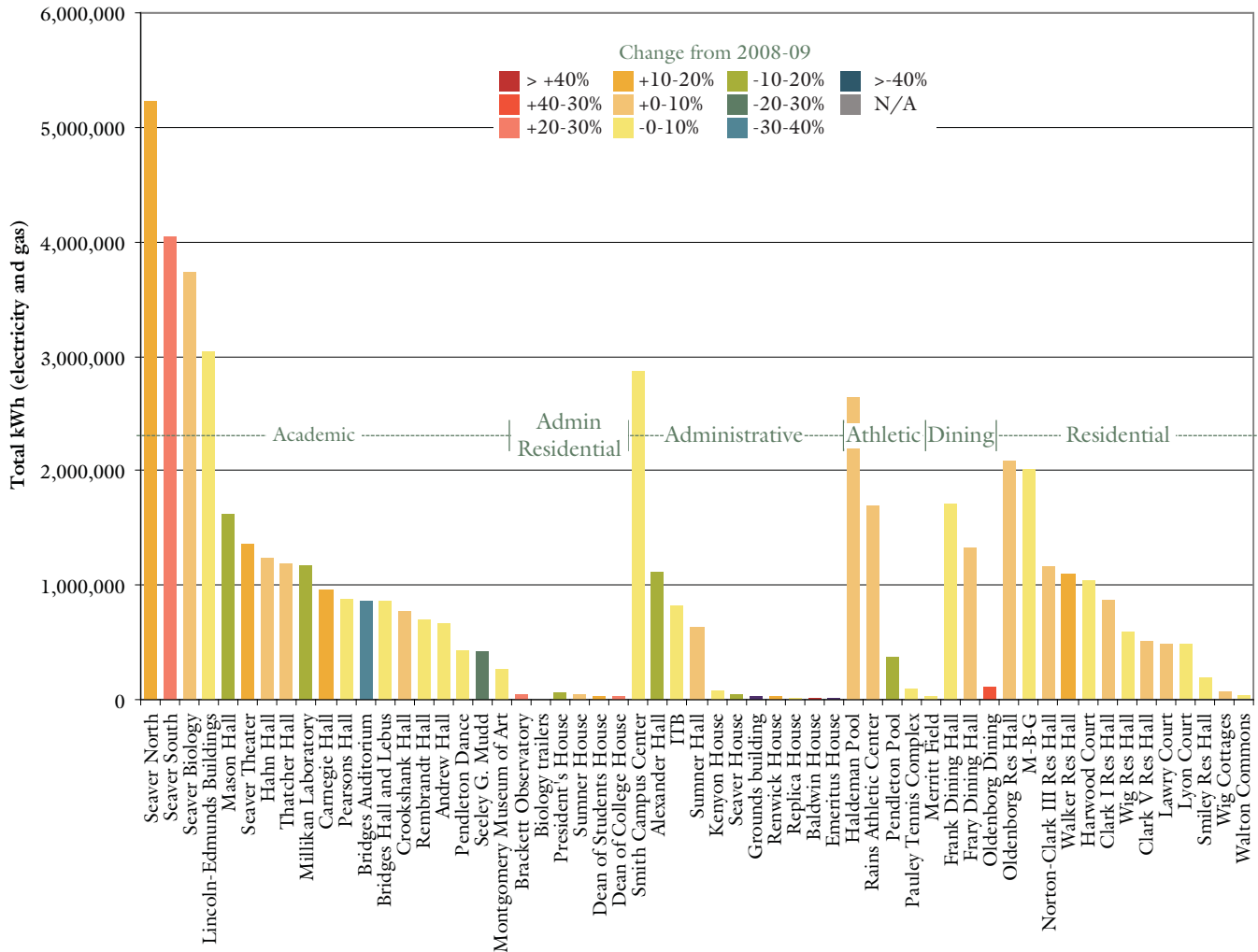
Energy Use by Function



Campus Solar Electricity Generation



Total Building Energy Use and Change from 2008-09, by Function



Energy

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Total energy use (kWh)	⇐ 56,117,593	54,093,476	45,979,454 kWh (15% reduction over 08-09)
KWh electricity/CDD*	⇐ 11,198	9,961	No goal set
Therms natural gas/HDD*	⇒ 534	614	No goal set
Renewable energy sources	⇒ 0.019%	0.018%	4.0%
Energy intensity by district:**			
Academic-Administrative	⇐ 42.5	42.3	29.6 kWh/sq-ft (30% reduction over 08-09)
Recreation	⇐ 21.9	21.7	16.3 kWh/sq-ft (25% reduction)
Venues	⇒ 23.7	28.1	21.1 kWh/sq-ft (25% reduction)
Dining	⇒ 75.6	76.6	61.3 kWh/sq-ft (20% reduction)
Sciences	⇐ 62.9	58.3	46.6 kWh/sq-ft (20% reduction)
Residential	⇒ 21.6	21.8	19.6 kWh/sq-ft (10% reduction)
Houses	⇒ 8.1	8.3	7.5 kWh/sq-ft (10% reduction)
SGM Library	⇒ 19.1	24.7	22.3 kWh/sq-ft (10% reduction)
Diesel generator use (gallons of fuel)	⇐ 9,952	1,329	930.3 gallons (30% reduction over 08-09)
% of buildings individually metered for gas/electricity use	52%	52%	100% (by May 2011)
% of major buildings with metering project complete (real-time, etc.)	0%	0%	100% (by May 2012)
% of all buildings with metering project complete (real-time, etc.)	0%	0%	100% (by May 2015)
% of sq-ft with EnergyStar score >69***	Data not available	Data not available	50%
% of major buildings retro-commissioned	0%	0%	100%
% of all buildings with completed in-depth energy audit	0%	0%	100%

* These measures refer to electricity use per cooling degree day and natural gas use per heating degree day, which provide some measure of how much energy the campus used, taking into account changes in temperature from year to year.

** Districts do not include buildings slated for construction/renovation. See Sustainability Action Plan for further description of districts and long-term energy plan.

*** EnergyStar analysis not yet completed - the EnergyStar program is currently developing specific metrics for campus facilities.

2009-10 Programs

>> **POWER DOWN dorm energy challenge** This residence hall competition resulted in a total 6.1% energy reduction from the residence halls in October, winning them \$5,000 to spend on a sustainability project of their choice (they chose dual-flush toilet retrofits).



Celebrating Harwood and the Cottages' victory during the POWER DOWN dorm energy challenge.

>> **Student energy reduction pledge** Over 50% of the student body pledged to take measures to reduce their energy use in this October pledge.

>> **Energy efficiency retrofits** Efficiency measures taken in the 2009-10 school year included improved freezer door gaskets in Frary, a variable speed hood fan in Frary, and variable speed drives for HVAC equipment on a variety of buildings.

>> **T12 to T8 lighting project** Over 9,000 fluorescent light fixtures across campus were retrofitted to a more efficient T8 model, an estimated 20% reduction in energy use.

>> **Renewable energy systems approval** In 2009-10 the College approved four new renewable energy systems - a solar PV and solar hot water heating system for the North Campus Residence Hall Project, a solar heating system for Haldeman Pool, and a solar PV array for the South Campus Athletic Facility. All projects are currently under construction.

>> **Renewable energy systems proposals** The College has received proposals for two additional solar systems - a solar heating system for Pendleton Pool, and a solar hot water heating system for Frank.

>> **Whole-house energy assessments** In coordination with a City of Claremont and Sustainable Claremont program, the College has engaged in initial audits of three houses - Kenyon House, Seaver House, and the President's House - for whole-house energy assessments and retrofits.

>> **Green Office Program pilot** During the pilot phase, the Green Office Program certified six offices as "green offices," training employees in energy-saving and other eco-friendly office behaviors.

>> **Norton-Clark III renovation** This complete renovation installed more efficient HVAC equipment and lighting and occupancy sensors for lighting control to reduce energy use.

>> **Light switch stickers** These stickers are distributed across campus - approximately 500 stickers were placed in 2009-10.



Over 500 stickers have been placed across campus.

>> **Metering project Phase I proposal**

Pomona is currently reviewing proposals for providing individual, building-level meters for electricity across campus. These meters will provide 15-minute interval data on electricity use, accessible online.

Ongoing Programs

>> **EnergyStar appliance policy** All applicable appliances purchased by the College are EnergyStar rated.

>> **Green laundry program** Efforts include EnergyStar laundry machines, drying racks in laundry rooms, and drying racks for free checkout from Sustainability Integration Office.

>> **CFL program** The College provides free CFL bulbs for all students, staff, and faculty.

>> **Renewable energy systems** The College has approximately 92kW of solar PV arrays.

>> **"SolTrain" mobile solar station** This 1kW portable power station is available for events.

For more information about ongoing energy-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Energy" - "Efforts").

Facilities

The construction of new facilities and the ongoing maintenance and operation of existing facilities constitute the most substantial contribution to the College's environmental impact. From the initial design of a facility to the procedures used on an everyday basis, it is necessary for the College to incorporate sustainability goals and programs.

2009-10 Programs

A variety of facilities-related efforts (including efficiency retrofits, operations procedures, etc.) are included throughout this report; this section describes facilities projects only.

>> **Norton-Clark III renovation** This residence hall retrofit included an upgraded HVAC system, dual-flush toilets, occupancy sensors for lighting control, drying racks in the new laundry room, updated energy-efficient appliances, and a new Green Bikes shop.

>> North Campus Residence Halls

Construction has continued on the LEED Gold-certified (anticipated) North Campus Residence Halls project, which includes solar arrays, a variety of energy-efficiency technologies, a rooftop garden, and much more. Anticipated for Spring 2011 opening.

>> **South Campus Athletic Facility & Parking Structure** Construction has commenced on this project, slated to include solar arrays and a wireless mesh/sensor-linked controls system for the lights (the first such installation west of Michigan).

>> **Haldeman Pool renovation** Construction started on this pool renovation project, including highly-efficient variable speed pumps and a solar hot water heating system.

>> **Studio Art facility** An architect was selected to begin schematic design for this new facility, anticipated to be one of the College's most sustainable developments.

>> **Campus Planning Guidelines** The Board of Trustees approved the College's new campus development standards, including expectations for sustainability in every development.

>> Landscape Guidelines

The Board also approved new landscape design standards, including a strong discussion of sustainability and reducing landscape-related water consumption and waste generation.

Ongoing Programs

>> **Green Building Standards** These standards provide guidelines for site management, water

efficiency, energy management, materials, resources and waste management, and indoor environmental management for all construction projects, requiring since 2003 that all new construction projects be eligible for LEED silver certification (proposed Gold for upcoming 2010 update).

For more information about ongoing facilities-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Green Building" and "Operations" - "Efforts").



A model of the College's North Campus Residence Halls project, including a view of the two solar systems.

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Compliance with Sustainable Operations and Maintenance Standards	Yes	Yes	Yes
% of square-footage LEED-EBOM certified	0%	0%	15%

Food & Agriculture

From air, soil, and water pollution to issues of locality, transportation, and community impacts, food and agriculture have become important topics for students and others interested in sustainability. The College would like to become a leader in these areas, and is developing programs for incorporating sustainable food items and improving operations.

2009-10 Programs



Signage listing locally-grown produce in the salad bar at Frank Hall.

>> **Fresh from the Field lunches** Weekly exhibition lunches at Frank Dining Hall include all local produce.

>> **Sustainable Food Coordinator** In 2010, Pomona Dining Services hired a full-time Sustainable Food Coordinator to develop and coordinate sustainable purchasing and operations efforts.

>> **Vegetarian/vegan tasting** Dining Services and the Food Committee held a tasting of new vegetarian/vegan items for menu development.

>> **Oldenburg herb garden** A team of students and staff assisted with the creation of an herb garden for the Oldenburg kitchen.

Ongoing Programs

>> **Local/Organic food** Dining Services purchased from 20 local farms and 6 local producers, most of them organic and many of them family farms.

>> **Organic Dinner** Student groups hosted the 5th Annual Organic Dinner, catered by the Shakedown, a student-run eatery at Pitzer College.

>> **The Organic Farm** The College's 2.5-acre organic garden has hundreds of varieties of fruits, vegetables, and herbs, along with a solar dehydrator, a bee hive, a solar cooker, and a chicken coop.

For more information about ongoing food-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Food and Agriculture" - "Efforts").

"Time to Get Real": A Food Assessment of Dining at Pomona College

In fall 2009, Samantha Meyer '10 completed an analysis of the food purchased in Frary Dining Hall for the month of October. She found that less than 9% of purchases were local, organic, fair trade, and/or otherwise ecologically-/socially-beneficial. This included 0.9% of purchases that are certified organic, and 6.3% of purchases that were locally produced or processed.

Samantha has now joined Dining Services as the Sustainable Food Coordinator to develop and implement new sustainability programs, including food purchasing, waste management, operations, education/awareness campaigns, and more.

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
% food purchases "sustainable"*	<i>Data not available</i>	<i>Data not available</i>	15% by 2015 30% by 2020
% food purchases "sustainable" in more than one category*	<i>Data not available</i>	<i>Data not available</i>	10%
% produce local*	<i>Data not available</i>	<i>Data not available</i>	60%
% sustainable seafood purchases*	<i>Data not available</i>	<i>Data not available</i>	100% by 2015
Programs in place in other campus dining facilities	No	No	Yes

* Dining Services does not yet have in place procedures for tracking food purchases; the draft Sustainability Action Plan requires Dining Services to provide annual tracking reports starting with the 2010-11 academic year.

Pollution

From laboratories and art classes to groundskeeping and the paints and sealants used in construction projects, chemicals and other hazardous materials are common on campuses. Pomona engages in a variety of programs to reduce the use and inappropriate disposal of these materials.

2009-10 Programs

>> **Activeion chemical-free cleaning** The College has acquired 53 Activeion units, which use ionized water as a general purpose cleaner and sanitizer. Units were distributed to housekeeping staff and to the RA desks for checkout by students.

>> **Expanded green cleaning** In 09-10, Housekeeping expanded the use of green cleaning options, including further reduction of aerosols and the limited distribution of non-green heavy duty cleaners.

>> **E-waste handling** The College's electronic waste is now handled by an approved e-waste handler, and a visit in the spring verified appropriate practices.

>> **Low-VOC furnishes** Low-VOC paints, sealants, carpets, furniture, and other items were selected for projects including the North Campus Residence Halls and the Harwood Court Renovation.



Dining staff demonstrate the Activeion units.

Ongoing Programs

>> **Green cleaning** Housekeeping uses a variety of certified green cleaners, as well as microfiber cloths instead of disposable towels and 100% post-consumer recycled paper towels and toilet paper.

>> **Integrated Pest Management** Integrated Pest Management practices are used across campus and greatly reduce the use of chemicals.

>> **Synthetic fertilizer reduction** Grounds continuously assesses new organic fertilizers for replacement of synthetic varieties. Grounds has also implemented a number of practices to help reduce stress on the turf and ornamentals, thus reducing pesticide and fertilizer use.

>> **Hazardous waste disposal** Batteries, light bulbs, and other hazardous wastes are disposed of with an approved handler and outreach is conducted on campus to reduce inappropriate disposal.

For more information about ongoing pollution-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Pollution" - "Efforts").

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Refrigerant use (pounds)	⇐ 389	269	202 pounds (25% reduction over 08-09)
Synthetic fertilizer use (pounds)	⇒ 1,250	9,250	0 pounds
Compliance with Green Cleaning Procedures	49.9%*	Data not available	100%
No non-essential use of hazardous materials**	N/A	N/A	Yes
Compliance with Sustainable Operations and Maintenance Standards	Yes	Yes	Yes

* For the first half of the the 2009-10 academic year, the College erroneously purchased a variety of products out of compliance with green cleaning standards.

** Based on a study of the use of hazardous materials on campus (not yet completed).

Purchasing

The College purchases an extremely wide variety of items, from toilet paper and cleaning supplies to furniture, copy paper, and fertilizer, all of which have impacts associated with both production and disposal. It can be difficult to track these purchases, but there are a variety of programs and projects in place to reduce environmental impacts.

2009-10 Programs

>> **Activeion chemical-free cleaning** The College has acquired 53 Activeion units, which use ionized water as a general purpose cleaner and sanitizer. Units were distributed to housekeeping staff and to the RA desks for students.

>> **Green Office Program** The SIO piloted a new program that certifies campus offices and departments for reducing their environmental impacts; six offices were certified during the pilot phase and the full program is now launched.



Pomona's Green Office Program certifies offices for actions including purchasing.

>> **Green cleaning** Housekeeping uses a variety of certified green cleaners, as well as microfiber cloths instead of disposable towels and 100% post-consumer recycled paper towels and toilet paper.

>> **Green furniture** The College's interior designer has produced a guide to sustainable furniture purchasing options for residence halls, from which the College makes decisions about new furniture.

>> **Eco-friendly diningware** All disposable to-go containers and silverware in the dining halls are biodegradable and all napkins are 100% recycled. Catering orders can specify biodegradable diningware when selecting disposable options (non-disposable options are also available).

Ongoing Programs

>> **EnergyStar-certified Appliances** The College is committed to purchasing EnergyStar-certified energy-efficient appliances whenever available.

>> **Recycled paper** It is the College's policy to purchase copy/prINTER paper with at least 30% post-consumer recycled content, and some offices have transitioned to 100% recycled content. Recycled content paper is also used for College publications, including the Viewbook and the Magazine.

>> **Pesticide and fertilizer reduction** The Grounds Department has implemented a number of practices to help reduce stress on the turf and ornamentals, thus reducing pesticide and fertilizer use. Integrated Pest Management practices are used across campus.

For more information about ongoing purchasing-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Purchasing" - "Efforts").

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
% white copy paper 100% PCW, FSC-certified, PCF	0.55%	<i>Data not available</i>	90%
% non-standard (e.g. other sizes, colors) copy paper at least 30% PCW	63.1%	<i>Data not available</i>	90%
College letterhead 100% PCW, FSC-certified, PCF	0%	0%	100%
% offices in Green Office Program	⇒ 7.9%	N/A	30%
Compliance with Sustainable Operations and Maintenance Standards	⇒ Yes	N/A	Yes

Transportation

The College has a variety of transportation impacts, including transportation for official college duties (which the College funds), daily commuting for faculty and staff, yearly commuting for students, travel for Study Abroad programs, and basic travel habits of students, staff, and faculty. The College must consider both the amount of travel done (miles) and the impact of this travel (generally measured in miles/gallon).

2009-10 Programs

>> **Additional Zipcars**
Due to high usage, Zipcar added three more shared vehicles to campus, for a total of 13 vehicles.

>> **New Green Bikes shop**
Green Bikes received a renovated shop location in Norton-Clark III.



Green Bikes staff work in their new shop.

>> **Green Green Bikes** Green Bikes has begun implementing their long-term plan to create a fleet of “green” bikes with green frames for free checkout by students.

>> **Expanded Green Bikes fleet** A part-time summer position in the Green Bikes shop allowed for summer-time bike checkout and provided the additional labor necessary to expand the fleet of bikes available.

>> **No first-year vehicles** For the first time, incoming first-year students were not allowed to bring cars to campus.

Ongoing Programs

>> **Green Bikes** This student-run program provides bikes free of charge to students and free labor on bike repairs.

>> **Folding bikes** The College has a fleet of five folding bikes, which can be checked out on a daily basis.

>> **Rentable transportation for students** The College provides a rentable passenger van and 25-passenger bus for individual students or groups needing transportation.

>> **Rideshare program** The College provides financial incentives to employees who

carpool, walk, bike, or use public transit and pays for up to \$100 of monthly public transportation commuting costs.

>> **Faculty rental and home loan program** The College owns approximately 20 faculty rental units within one mile of campus and provides reduced rate mortgages for properties within five miles of campus.

>> **Videoconferencing technology** The College has optimized campus videoconferencing technology for use in meetings and interviews, cutting down on the need for transportation.

For more information about ongoing transportation-related efforts, see www.pomona.edu/sustainability (“Initiatives” - “Transportation” - “Efforts”).

2020 GOALS - How we’re doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Campus fleet gas use (gallons)	⇐ 10,819	5,059	4,300 gallons (15% reduction over 08-09)
Single-occupancy vehicle commuting miles	⇐ 3,298,269	2,403,269	2,163,588 miles (10% reduction over 08-09)
Total commuting miles	⇐ 4,827,418	3,610,133	3,429,848 miles (5% reduction over 08-09)
% vehicles alternatively fueled	1%	1%	50%
Compliance with vehicle purchasing stds.	⇒ Yes	Yes	Yes

Waste is a particularly important issue for Southern California, considering the limited amount of space available for landfills and general waste disposal. Rising hauling costs and increasing transport distances will increase impacts even when the amount of trash stays constant.

Yearly Waste Diversion Data*

Year	Landfill		Recycling	Compost	Hazard.	Green Waste	Electronic	Total	Diversion
	Tons	Cost							
06-07	699	\$38,166	480**	20**	5.5	84.5***		1,289	45.8%
07-08	655	\$35,756	480**	26**	5	84.5***		1,251	47.6%
08-09	686	\$58,125	480**	28**	5	84.5		1,284	46.5%
09-10	544	\$66,330	504**	29**	2	112	1	1,192	54.4%

* Not including construction/demolition wastes, donations, or ReCoop.

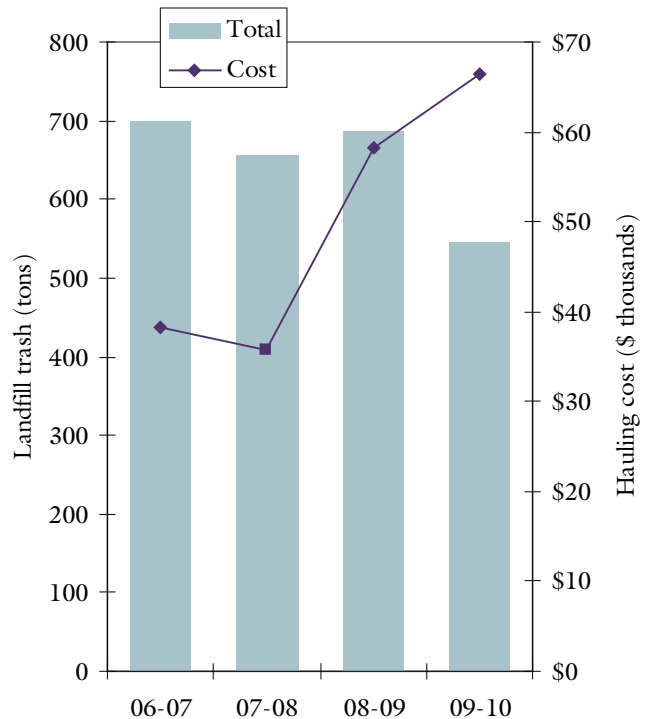
** Estimated; exact measurements not available.

*** Estimated; measurements not available.

Waste BY THE NUMBERS

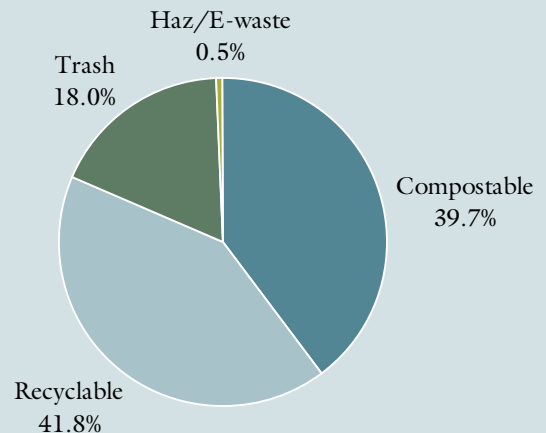
- >> In 2009-10 the College disposed of 4,043 tons of construction waste, of which 77% was diverted from landfills.
- >> Pomona diners leave an average of 1/4 lb. of food on their plates at the end of each meal.
- >> ReCoop sold \$11,609 worth of used items, a 27% increase over 2008-09. This included over 75 lamps, 40 rugs, and 45 fridges!
- >> Through the Institutional Recycling Network, Pomona donated 29 tons of furniture to Managua, Nicaragua, including 120 sets of bookcases, dressers, desks, mattresses, and chairs.

Landfill Trash Volume and Cost



Waste Audit Results

In the spring, a group of students conducted a waste audit to see what the campus was throwing away. They sorted over 400 pounds of trash and recycling to find that, by weight, only 18 percent of what was being thrown away was actually trash. The majority of what was in the trash cans should have been recycled or composted, and also included hazardous and potentially dangerous wastes. This research led to the proposal of several new programs and projects, all of which will be discussed further in the 2010-11 year.



Waste

2009-10 Programs

>> **Recycling cards and bin stickers** Cards and stickers detailing the College's recycling program were distributed to all employees and placed on more than 2,000 bins.

>> **Reduced printing** Pay stubs, the President's Annual Report, and the student handbook were among the materials switched to electronic formats. The College catalog is now printed once every two years.

>> **Campus waste course and audit** In the spring, five students took part in an independent study analyzing the campus waste stream and sorted over 400 pounds of landfill waste.

>> **Residential composting** A pilot program installed compost bins in two residential areas (the pilot has since been expanded to six locations).



Reusable to-go containers now in use at the dining halls.

>> **Reusable to-go** Students receive a reusable to-go container for use in the dining halls, and disposable containers now cost \$0.50 each.

>> **Trayless dining** Pomona's dining halls are now tray-free, reducing food waste and dishwashing.

>> **Landfill and e-waste trips** Groups of students toured Olinda Alpha Landfill and the e-waste facility where College waste is handled.

>> **Clean Sweep/ReCoop** ReCoop's fall sale brought in almost \$12,000 selling items donated or collected after the end of the 08-09 school year.



Students sorting waste for the campus waste audit.

Ongoing Programs

>> **Institution Recycling Network** Unneeded furniture and academic supplies are donated to international communities in need.

>> **Green waste mulching** Green waste is composted on and off campus for reuse.

>> **Pre-consumer composting** Kitchen scraps from all campus eateries are composted at the Farm.

>> **Compost bucket checkout** Students can get free buckets for collecting compostable wastes from the Sustainability Integration Office.

>> **Food Rescue** Leftover prepared food is donated to local shelters and charitable organizations.

>> **Student print quota** Students receive \$10 of print quota each semester. The College charges per page (not per side) encouraging double-sided printing.

>> **Cooking oil reuse** Used cooking oil is collected by a company that uses it to make biodiesel.

For more information about ongoing waste-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Waste" - "Efforts").

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Diversion rate*	⇒ 54%	47%	75%
Construction waste diversion	77%	Data not available	90%
Total waste (tons)*	⇒ 1,192	1,284	1,155 tons (10% reduction over 08-09)

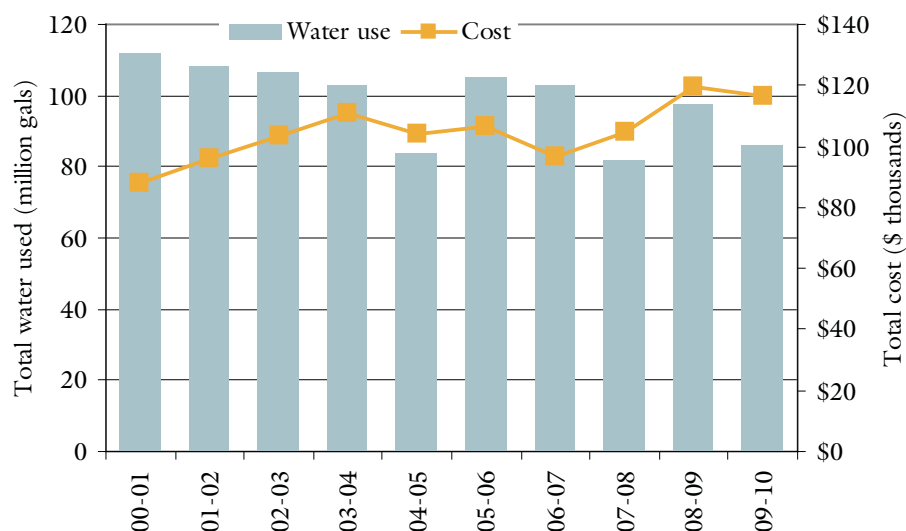
* Includes: landfill, recycling, compost, hazardous, electronic, and green waste; does not include construction/demolition wastes, donations, or ReCoop.

Water

Water is another particularly important issue for Southern California, considering the dry, arid conditions and the complicated political history surrounding water use in the Los Angeles basin. There are two issues to consider when discussing water: the amount of water used and whether this water is reclaimed or recycled.

Annual Water Use and Cost

Year	Gallons	Cost
00-01	112,002,078	\$87,694
01-02	108,314,930	\$96,056
02-03	106,827,803	\$103,268
03-04	103,035,927	\$110,630
04-05	84,080,291	\$103,976
05-06	105,205,278	\$106,424
06-07	102,786,826	\$96,732
07-08	81,714,951	\$104,875
08-09	97,579,636	\$119,399
09-10	86,135,938	\$116,232



2009-10 Programs

- >> **Shower timers** Students installed approximately 40 five-minute shower timers in Wig Residence Hall to assist students with taking shorter showers.
- >> **Deep aerification** Deep aerification - drilling holes and filling them with sand - in the lower soccer field will reduce irrigation water loads.
- >> **Dual-flush toilets** Over 115 campus toilets in academic, administrative, and residential buildings were retrofitted to dual-flush, reducing water use.
- >> **Water brooms** Housekeeping purchased water brooms to use instead of hoses for exterior cleaning.

Ongoing Programs

- >> **Drought-tolerant plantings** Grounds has been systematically increasing the variety and extent of drought-tolerant landscaping choices on campus.
- >> **Efficient plumbing fixtures** Efficient toilets, waterless urinals, low-flow shower heads, faucet aerators are installed across campus.
- >> **Stormwater management** Bioswales and other methods of stormwater redirection around campus channel runoff back into the natural system.

For more information about ongoing water-related efforts, see www.pomona.edu/sustainability ("Initiatives" - "Water" - "Efforts").

2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

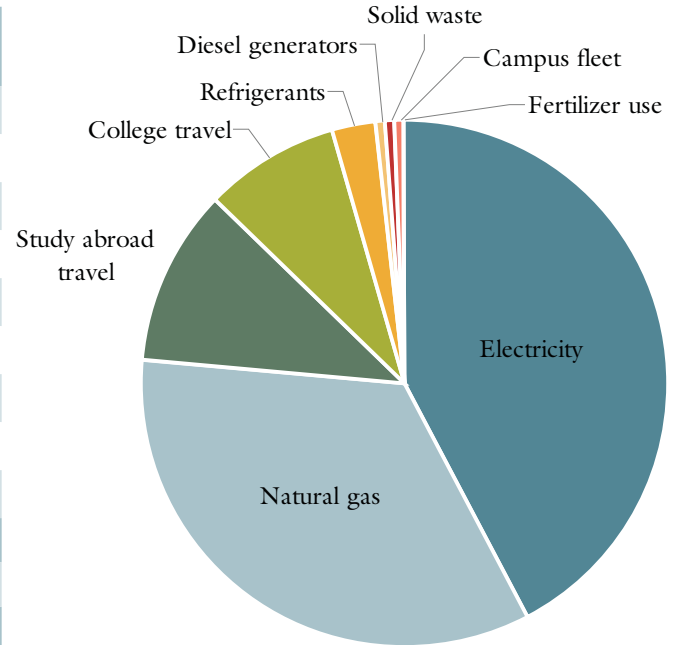
Data Point	09-10	08-09	DRAFT 2020 Objective
Change in 3-year average water use	⇐ 11.5% increase		5% annual reduction
Total water use (gallons)	⇒ 86,135,938	97,579,636	No goal set
Use of reclaimed/gray water	No	No	Yes
Impermeable surfaces (square-feet)	⇒ 2,996,263	2,996,263	No net increase
Use of sustainable stormwater techniques	⇒ New bioswales		General increase
% of major buildings metered for water	0%	0%	100% (by May 2011)
% of all buildings metered for water	0%	0%	100% (by May 2014)

Climate Change

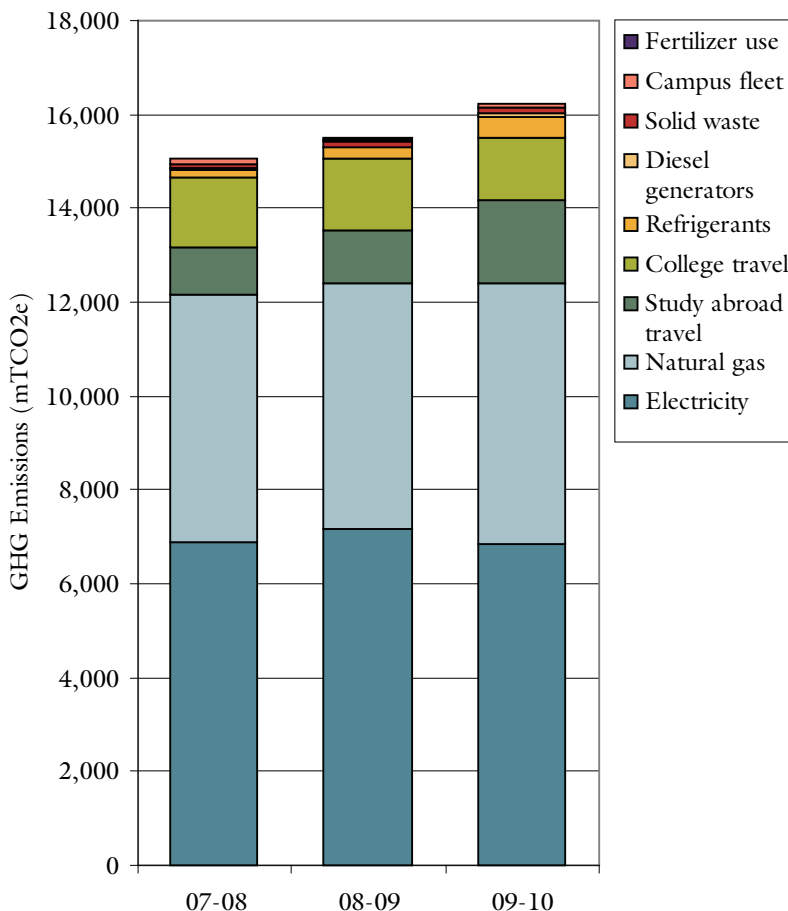
2009-10 Climate Action Plan Greenhouse Gas Inventory

The following inventory includes sources of emissions that are considered in the College's emissions reduction plan. Additional emissions are described below. All emissions are in metric tonnes of carbon dioxide equivalent (mTCO_{2e}), used to compile a variety of greenhouse gases.

Source	Emissions (mTCO _{2e})	% of total emissions
Electricity	6,843.9	42.2%
Natural gas	5,567.8	34.3%
Study abroad travel	1,768.6	10.9%
College travel (air & road)	1,331.3	8.2%
Refrigerants	433.4	2.7%
Diesel generators	100.0	0.6%
Solid waste	87.4	0.5%
Campus fleet	97.5	0.6%
Fertilizer use	5.8	<0.1%
TOTAL	16,235.7	
Composting offset	-11.2	
NET TOTAL	16,224.5	



Greenhouse Gas Inventory, 07-08 to 09-10



Breakdown by Scope

- >> **Scope 1 emissions** - 6,204.5 mT
From sources controlled by the College.
Natural gas; refrigerants; diesel generators; campus fleet; fertilizer use
- >> **Scope 2 emissions** - 6,834.9 mT
From off-site sources resulting from College activities.
Purchased electricity
- >> **Scope 3 emissions** - 3,187.3 mT
From all other indirect sources.
Study abroad travel; college travel; solid waste

Additional Emissions Sources

- >> Student travel to/from campus: 6,857.6 mT
- >> Staff/fac. commuting: 1,370.2 mT
- >> Transmission losses: 676.9 mT
- >> Water use: 224.0 mT
- >> Paper use: 121.8 mT

Climate Change

Greenhouse Gas Inventory, Changes from Previous Year

CLIMATE ACTION PLAN EMISSIONS SOURCES	09-10	08-09	Change
Electricity	6,843.9	7,161.0	-4.4%
Natural gas	5,567.8	5,259.2	+5.9%
Study abroad travel	1,768.6	1,106.9	+59.8%
College travel (air & road)	1,331.3	1,520.8	-12.5%
Refrigerants	433.4	237.8	+82.3%
Diesel generators	100.0	13.4	+646.3%
Solid waste	87.4	110.2	-20.7%
Campus fleet	97.5	70.6	+38.1%
Fertilizer use	5.8	10.4	-44.2%
TOTAL	16,235.7	15,490.3	+4.8%

OTHER SOURCES	09-10	08-09	Change
Student travel to/from campus	6,857.6	7,035.6	-2.5%
Staff/faculty commuting	1,370.2	1,000.3	+37.0%
Transmission losses	676.9	708.2	-4.4%
Water use	224.0	254.0	-11.8%
Paper use	121.8	160.3	-24.0%

OFFSETS	09-10	08-09	Change
Composting	-11.2	-10.8	+3.7%

COMPLETE TOTAL	25,474.93	24,637.9	+3.4%
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2020 GOALS - How we're doing

⇒ Closer to goal - No change - ⇐ Farther from goal

Data Point	09-10	08-09	DRAFT 2020 Objective
Greenhouse gas emissions (mTCO ₂ e)	⇐ 16,224.5	15,479.5	11,453.0 mTCO ₂ e (26% reduction over 08-09)