

2013-2014



SUSTAINABLE POMONA

SUSTAINABILITY ANNUAL REPORT

sustainability integration office
president's advisory committee on sustainability

Introduction

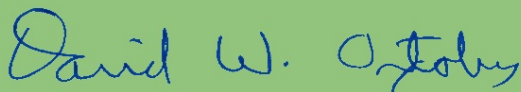
Dear Pomona College community members and friends,

This year's Sustainability Report identifies many important steps by the Pomona College community to reach our ambitious goal of net carbon neutrality by 2030 and our work to become better stewards of the earth's resources. As a college president, I am particularly thankful for the teaching and scholarship of our faculty that engages Pomona students and our community in the key environmental issues of our time. They are developing leaders who already are making important contributions toward better use of Pomona's resources, and who we count on to help address the difficult environmental challenges ahead.

With support from the Board of Trustees, our facilities team and the Presidential Advisory Committee on Sustainability are making sustainability even more integral to our campus. Investments in building retrocommissioning for energy efficiency and new green buildings already are making significant decreases in our carbon footprint. New native landscaping and key technology improvements are improving how we use Southern California's precious water supply. I encourage you to read about the many additional sustainability efforts in this year's report and thank those leading and carrying out this important work.

I look forward to working with Pomona's students, faculty and staff to continue advancing our environmental stewardship in the years ahead.

Sincerely,



David Oxtoby
President

Table of Contents

Executive Summary	2
Administration	3
Buildings/Grounds	4
Climate Change	5
Education	6
Energy	8
Food	9
Purchasing	10
Transportation	11
Waste	12
Water	13

**President's Advisory
Committee on
Sustainability**

*Christopher Chinn, Chair 13-14
Thomas Moore, Chair 14-15*

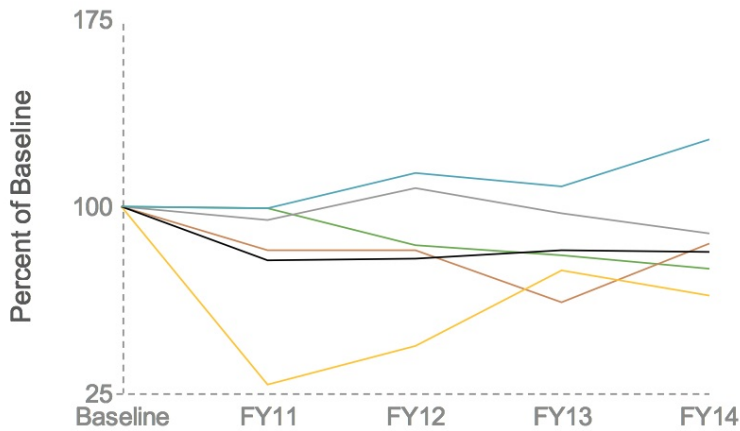
**Pomona College
Sustainability Integration
Office**

Ginny Routhe, Director

Annual Report Research Assistants:
Jennifer Schmidt '14 and Robin Xu '15

Executive Summary

Sustainability Progress



FY14 Performance vs. 3-yr Baseline Avg (FY 08-10)



	CO2e	reduced 25%
	Commuting	reduced 15%
	Energy	reduced 11%
	Sustainable Food	reduced 36%
	Landfill Waste	reduced 19%
	Water	increased 26%

Highlights FY 2014

Admin

8

EcoReps hired as peer educators promoting sustainable living in the residence halls



Food

58%

Local produce purchased



Buildings/ Grounds

47%

Reduction in synthetic fertilizer use



Purchasing

90%

Paper cleaning products were green certified



Climate

Climate Neutrality Date chosen

2030

Transportation

3%

Reduction in single-occupancy vehicle commuting miles



Ed

20

Departments offering sustainability - focused or related courses



Waste

6%

Reduction of total waste on campus



Energy

8%

Reduction in building energy use, including growth and renovation



Water

16

Water meters installed in residence and dining halls



Administration

Key



need met



some needs remain



many needs remain

Goal

Performance

Resources

Sufficient resources for sustainability operations and programs



Operational sustainability folded into department budgets experienced cost cutting and competing priorities (energy, fertilizers, dining, green cleaning, paper purchasing); green revolving fund proposal declined to capture savings for reinvestment in conservation projects



President's Sustainability Fund granted \$6,454 to student proposals for operational/ infrastructural sustainability improvements



The Sustainability Integration Office location not spatially positioned to meet student need for resource access



The Sustainability Integration Office (SIO) budget allowed for educational events like PowerDown, No Impact Week, and film series

Staffing

Sufficient staffing for sustainability programs and operational/ infrastructural sustainability goals progress



Energy manager, Assistant Director Sustainability, Farm Manager positions filled. Full-time Sustainable Food Coordinator position replaced with student position; Sustainability Office understaffed for workload; proposal for full-time engagement coordinator declined



Student staffing for sustainability remains high with student managers running Green Bikes, compost, ReCoop, and the new EcoReps program

Consortium Committee

Goal of an existing consortium sustainability committee for collaboration and information sharing



Proposal for an official 7C committee was declined by Council of Presidents in May

Local Partnerships

Goal of strong partnerships with local sustainability groups and organizations



Pomona College again was a Platinum-level sponsor of the Claremont Earth Day in the Village with water tours of the Claremont Colleges featuring Pomona's storm water capture projects; SoCal Sustainability Officers collaboration met at Pomona this year



EcoReps program launched

8 students provide resources to their peers and encourage environmentally conscious behavior and infrastructural improvement in residence halls

AASHE Bulletin
features new bioswales in March

Platinum-level Sponsor
of Claremont Earth Day 2014

Pomona and Sontag Halls Grand Winners

2013 Builder's Choice and Custom Home Design Awards

USA Today

article mentions ReCoop in March



President's Sustainability Fund projects

add bicycle self-repair and water bottle refill stations to Smith Campus Center and water refill stations to Class Day to eliminate waste

Buildings & Grounds

Key

● completed

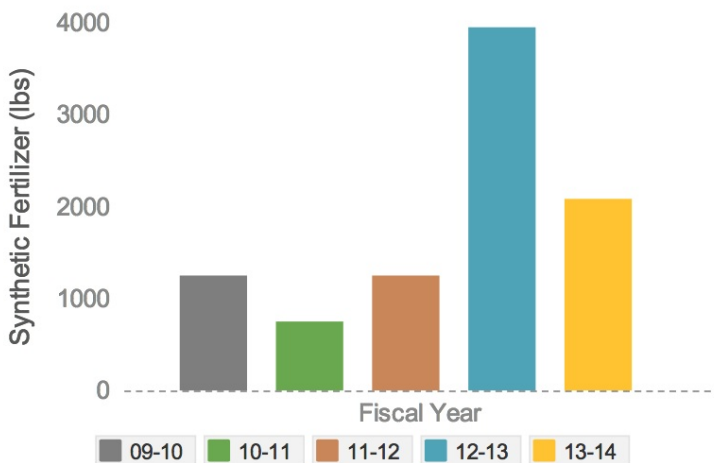
● on track

● obstacle

● off track

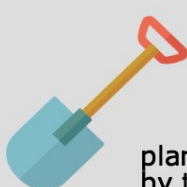
Goal	Performance	Progress	Trend
Fertilizers Purchase 0 pounds of synthetic fertilizer by 2020	● 2,084 pounds of synthetic fertilizers were purchased, an improvement of 47% over last year	FY09 9,250 59% 2,084 GOAL 0	
Refrigerants Achieve 25% reduction under FY09 to 202 pounds of refrigerant use by 2020	● 129 pounds of refrigerants were used last year, a 58% reduction from the previous year and 52% reduction from FY09	52% GOAL MET	
Green Building Achieve 100% compliance with Green Building Standards	● Of the projects this year, Millikan was 80%, Studio Art 83%, and Draper Center 19% GBS compliant	80% GOAL 100% 83% GOAL 100% 19% GOAL 100%	Data not available

Synthetic Fertilizer Application



Green Building Commitments

- Draper Center windows double-pane glazed; full insulation of all walls and attic; reuse of interior paneling; reuse of desks and re-upholstered chairs; high efficiency plumbing & HVAC; in 14-15 LEED Gold NC will be sought
- Career Development Office LED lighting; 100% recycled content Interface carpet tiles
- Millikan anticipating at least LEED Gold rating; 5%+ of building energy use from on-site renewables; storm water capture; water use reduction and heat island effect reduction; low-emission building materials and certified wood; solar control windows; LED lighting, bi-directional skylights, timers, occupancy/daylighting sensors
- Studio Art anticipating LEED Gold rating; improved building envelope; window glazing; photovoltaics producing 30,000 kWh per year, or 7.3% of total building energy use; 95% efficient condensing boiler; window sensors to reduce AC use; daylighting sensors; redirection of storm water into aquifer; drip irrigation system and native plants to reduce water use



40 students engaged
in two native planting events held by the Ralph Cornell Society



24 native & threatened oaks planted
in the Wash and along Bonita Street



654 square feet of permeable ground
added on campus with Millikan renovation

Climate Neutrality

Key



completed



on track



obstacle



off track

Greenhouse Gas Emissions

Goal

Achieve net climate neutrality by balancing a measured amount of emissions released with an equivalent amount sequestered or offset by 2030

Progress

FY09 17,353 15,375 GOAL 0

By end FY14, achieved 11% reduction from FY09 at 15,375 metric tons of CO2 equivalent (MTCO2e)

Performance FY 14

↓ 3% Commuting emissions were down 3% from last year, at 835 MTCO2e

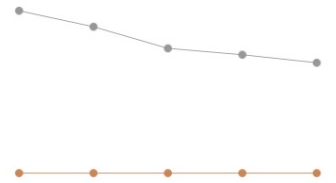
↓ 7% Study abroad emissions were down 7% from last year, at 1,141 MTCO2e

↓ 14% Natural gas emissions were down 14% from last year, at 4,192 MTCO2e

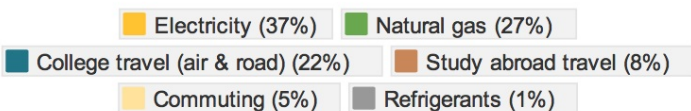
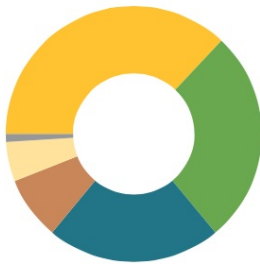
↓ 7% College travel (air & road) emissions were down 7% from last year, at 3,432 MTCO2e

Trend

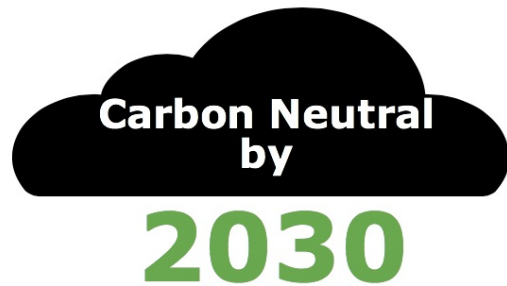
FY 10-14 2020 Goal



13-14 Emissions by Source



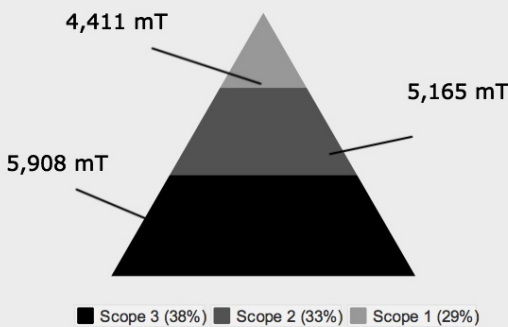
Commitments



Additional Emissions Note

The Campus Carbon Calculator by Clean Air-Cool Planet changes emissions factors every year, making greenhouse gas numbers a moving target. The calculator v7.0 was used in these calculations.

Breakdown by Scope

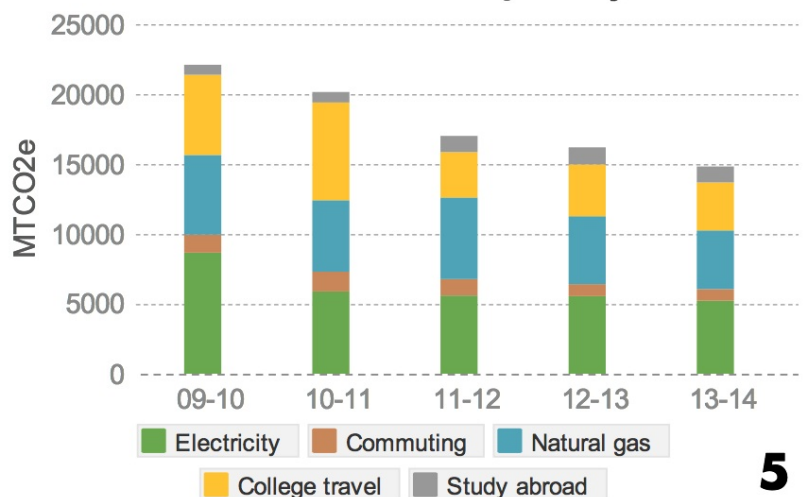


Scope 1: sources controlled by the college (natural gas, refrigerants, diesel, campus fleet, fertilizer use)

Scope 2: off-site sources resulting from college activities (purchased electricity)

Scope 3: indirect sources (travel, commuting, paper use)

Greenhouse Gas Emissions Trajectory





Education: Curricular

Key

 completed

 on track

 obstacle

 off track

Goal

Performance

Progress

Trend FY 10-14 2020 Goal

Sust-Focused Courses

Maintain a general increase in sustainability-focused courses offered



Sustainability-focused courses were 3% of total courses offered, no increase from last year

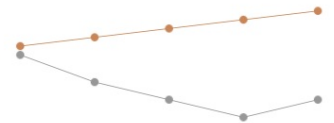


Sust-Related Courses

Maintain a general increase in sustainability-focused courses offered



Sustainability-related courses were 8% of total courses offered, a 33% increase from last year



The Farm

600+ visitors

including 28 local school groups came for free educational tours. 6 members of the Schuler Scholars college access program in Chicago came to the Farm in July for a week-long service learning trip.



1800+ lbs of produce

consumed by the Farm Stand, Sagehen Café, Walker Coffeehouse, and Summer Produce Boxes. The Farm hosted weekly workshops, and 25 plots were maintained by 34 active stewards.



800+ volunteer hours

were put in at the Farm by students, faculty, staff, and community members

Research Commitments

- Heather Williams is working on a book entitled "River Underground: The Secret Life of the Santa Ana"
- Char Miller published two books and more than ten articles on environmental history, public lands, and water politics
- Rick Worthington published an article titled "Digitization and Sustainability"
- George Gorse researches modern and sustainable architecture in Los Angeles
- Ann Davis studies how zoning policies and federal subsidies affect housing development
- John Jurewitz continues to research climate change adaptation
- Newly hired EA professor Marc Los Huertos researches greenhouse gases, water quality, and agroecology
- 6% of summer undergraduate research projects focused on sustainability topics in summer 2014
- \$25,000 Thoreau Research Grant awarded to professors Marty Meyer, Jonathan Wright, and Char Miller for interdisciplinary student research investigating post-fire ecology at the Bernard Field Station



14% internships

through the Pomona College Internship Program (PCIP) were related to sustainability



20 Pomona departments

offering sustainability-focused or related courses



50 sustainability-focused courses

offered at the 5Cs

Education: Co-Curricular

Key



completed



on track



obstacle



off track

Goal	Performance	Progress	Trend
Student Newsletter Maintain a general increase in student sustainability newsletter signups	5% of students were signed up for the sustainability newsletter, a decrease of 17% from last year	FY09 8% 5% GOAL 19%	
Faculty/Staff Newsletter Maintain a general increase in faculty/staff sustainability newsletter signups	17% of faculty/staff were signed up for the sustainability newsletter, no increase from last year	FY09 17% 17% GOAL 28%	
Green Offices Achieve 30% of offices participating in Green Office Program	19% of Pomona College offices received a Green Office rating, an increase of 90% from last year	19% GOAL 30%	

Commitments

- 186 students, faculty, and staff took part in No Impact Week at Pomona in February, focusing on consumerism, waste, transportation, and food to reduce personal environmental impacts.
- 5C environmental justice film series co-sponsored by the SIO, Religious Studies department, Asian Studies department, Environmental Analysis department, and Environmentalists of Color Organize
- Coronado High School Garden tripled in size, continuing the Draper Center's active involvement with this project.
- Sontag Rooftop Garden Mentoring Program mentored local high school students
- Pomona Climate Justice established a partnership with local nonprofit Mujeres de la Tierra, which trains women to become environmental leaders in their communities
- Pomona for Environmental Activism and Responsibility (PEAR) put on a Compost Awareness Day in the fall, toured a local recycling facility and sponsored PowerDown

PowerDown/Get WaterWise Competition

tons as the 2020 Goal

926 5C pledges

to reduce energy and water use in this nationwide competition

65,904 gallons

of water saved by Pomona, placing the college in the top five nationwide.

-6.2% energy usage

by Lyon Court, highest for Pomona dorms. Lyon Court also reduced water use the most, by 15.4%.



161 bicycles

in the Green Bikes Program, where students can learn how to repair and maintain bikes they check out for the semester



Discussion on environmentalism and people of color

hosted by Environmentalists of Color Organize (ECO) in April



5C divestment campaign

engaged students across campuses who petitioned administrators to divest from fossil fuel companies

Energy

Key



completed



on track



obstacle

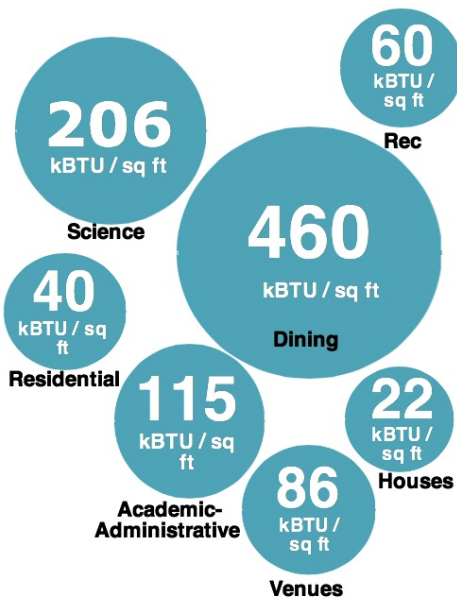


off track

Goal	Performance	Progress	Trend
Total Energy Reduce total energy use on campus by 15% under FY09 to 45,979,454 kWh	Energy use on campus reduced 8% from last year, reaching close to FY04 levels at 45,979,454 kWh		
Renewables Increase onsite renewable energy production to 4% of total energy use by 2020	Onsite renewable production was down 48% from the previous year due to the decommissioning of the faulty solar thermal system at Haldeman Pool		
Diesel Generators Reduce diesel fuel use in backup generators by 30%, under FY09 to 930 gallons	Diesel used for backup generation was 831 gallons, 11% more than last year, remaining under goal		

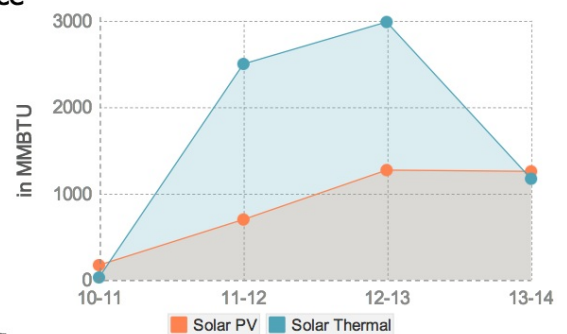
Commitments

Energy Intensity by District

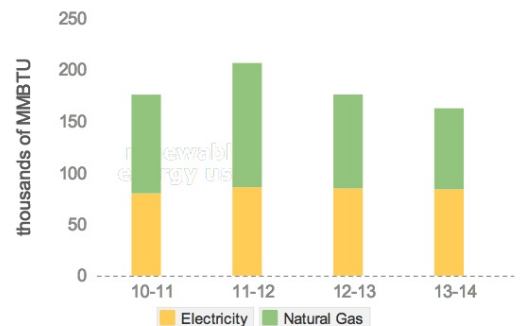


- Aging water heaters in residence halls replaced
- Variable-frequency drives replaced in Carnegie, Seaver Theatre, and Seaver labs; more efficient control of AC motor speed
- Building controls in Seaver laboratories enhanced
- Campus-wide heating and cooling set points and scheduling standards went implemented
- Haldeman Pool boilers replaced
- LED lighting upgrades in Lyman Hall and Bridges Auditorium
- Building management systems across campus nearly complete for centralized, continuous monitoring
- Energy audits conducted for Alexander Hall, Smith Campus Center, Lincoln-Edmunds, and Seaver Theatre

Renewables Use



Electricity/Natural Gas Use



14% reduction

largest reduction of energy use per square foot on campus in dining sector



3% of campus buildings

achieved an Energy Star score above 69% on path to reach 50% of buildings by 2020



8% of major buildings retro-commissioned

as a start to reach 100% by 2020

Food

Key



completed



on track



obstacle



off track

Goal

Performance

Progress

Trend

FY 10-14 2020 Goal

Purchases

Purchase 30% sustainable food (local, organic, fair trade, or humane) by 2020



25% of food purchased was sustainable, a 14% reduction from FY13; slight reduction when improvement wanted



GOAL 30%



Purchase 10% sustainable food in more than one category (local, organic, fair trade, or humane) by 2020



7% of food was sustainable in 2 or more categories, a 75% increase from FY13



GOAL 10%



Local Produce

Purchase 60% of produce from farms within 250 miles by 2020



Local produce purchased was 58% local, a 32% increase from FY13



GOAL 60%



Seafood

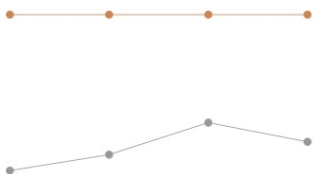
Purchase 100% sustainable seafood by 2020



Seafood purchases were 28% sustainable, a 28% decrease from FY13; price increase

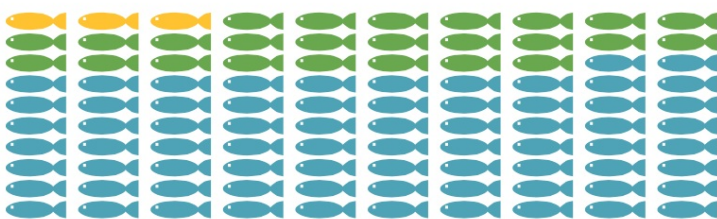


GOAL 100%



Seafood Purchases

2020 Goal



Seafood Watch Guide (3%) MSC Certified (25%)

Non-certified (72%)

28% of seafood purchased was sustainable as certified by the Marine Stewardship Council or the Seafood Watch Guide's highest rating, a 28% decrease from last year

Commitments

- Purchases of local produce increased by 32% from last year with a new produce vendor to help source from local farms
- 8th annual Organic Dinner in Feb. 2014 showcased an entirely organic menu
- The College renewed its Marine Stewardship Council chain-of-custody certification in November; seafood sourced from farms that meet MSC sustainability guidelines
- The Coop Store increased its selection of sustainable items, offering organic chocolate, dried fruit, energy bars, and Fair Trade drinks
- 25% of food purchased in the dining halls and catering was sustainable, defined as third-party certified as local, organic, fair trade, or humanely raised



Local baked goods

are purchased from 42nd Street Bagels, Bread Los Angeles and Pasadena Baking Wholesale



Fair Trade coffee, tea, and chai

are served almost exclusively in the dining halls under Pomona's designation as a Fair Trade University



Real Food Day

featured local produce, signage about local farms, a film showing, and herbs from the Farm

Purchasing

Key



completed



on track



obstacle



off track

Goal

Performance

Progress

Trend

FY 10-14 2020 Goal

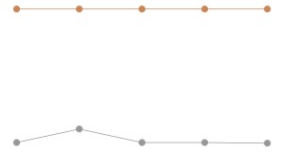
White Copy Paper
Select 100% post-consumer waste, Forest Stewardship Council, chlorine free white copy paper for 90% of purchases



0.2% of white copy paper purchased by the College was 100% recycled although 74% has some recycled content

0.2%

GOAL 90%



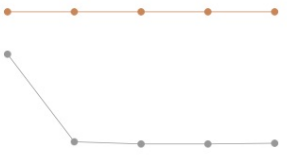
Non-Standard Paper
Select 30% post-consumer waste for 90% of non-standard (size, color) paper by 2020



7.4% of non-standard copy paper purchased by the College was 30% recycled, down 7% from last year

7%

GOAL 90%



Letterhead

Select 100% post-consumer waste, Forest Stewardship Council, chlorine free letterhead for 100% of purchases



0% of college letterhead reordered with the new college mark was 100% recycled as it was all 30% recycled

0%

GOAL 100%



Operations & Maintenance Standards

Achieve 100% compliance with Sustainable Operations and Maintenance Standards



56% compliance with OMS - more work to be done to comply fully with green cleaning, toxic chemicals & recycled content

56%

GOAL 100%

Data not available

Commitments

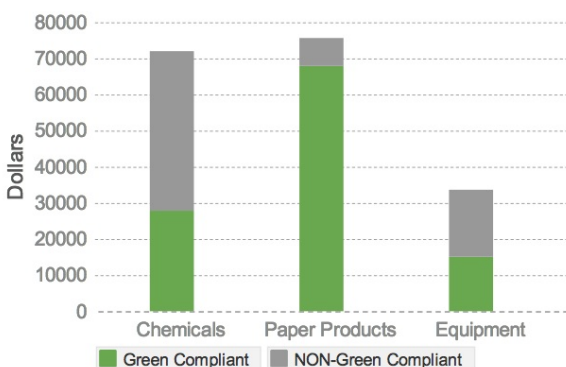
- 94% of Green Offices did not purchase styrofoam products

- 98% of expenditures on desktop and laptop computers and monitors were Electronic Product Environmental Assessment Tool (EPEAT) Gold

- The Document Management Specialist position in ITS works on projects to digitize business processes and support paperless initiatives

- The Green Office Program recognizes offices that purchase recycled paper and Energy Star appliances

Green Housekeeping Purchases



Recycled Paper Purchased (by weight)



100% (0%) 30% (73%) 10% (1%) 0% (26%)



40,884 lbs of copy paper purchased
a 3% increase over 39,595 lbs last year



50% Energy Star
of the 8 appliances purchased FY14; goal is 100%



15,000 plastic bags avoided
when the Coop Store switched to reusable and paper bags

Transportation

Key

● completed

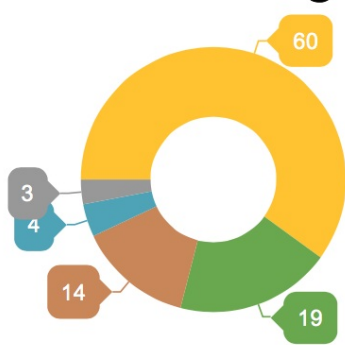
● on track

● obstacle

● off track

Goal	Performance	Progress	Trend
Fleet Gas Use Reduce campus fleet gas use by 15% under FY09 to 4,300 gallons	● on track Campus vehicles used 7,290 gallons, 40% less fuel than the year previous	7290 / GOAL 4300 gallons	FY 10-14 (grey) / 2020 Goal (orange)
Alternative Fleet Alternatively fuel 50% of campus fleet vehicles	● off track 3% of campus fleet is alternatively fueled, with no new alternative vehicles for 5 years despite an avg. of 3 new vehicles each year	3% / GOAL 50%	FY 10-14 (grey) / 2020 Goal (orange)
Vehicle Purchasing Achieve 100% compliance with sustainability standards for vehicle purchasing	● on track 80% of vehicles purchased last year complied with Sustainability Action Plan Global Warming Score standard for their class	80% / GOAL 100%	FY 10-14 (grey) / 2020 Goal (orange)
SOV Commuting Reduce commuter single-occupancy vehicle miles by 10% under FY09 to 2,163,588 miles	● completed Total SOV miles was 2,108,745 miles, a 3% reduction from last year, under the 2020 goal	100% / GOAL MET	FY 10-14 (grey) / 2020 Goal (orange)
Commuting Miles Reduce total commuting miles by 5% under FY09 to 3,429,848 miles	● obstacle Total commuting miles was 4,170,880, a 39% increase from last year	4.2M / GOAL 3.4M	FY 10-14 (grey) / 2020 Goal (orange)

Commuting



Commitments

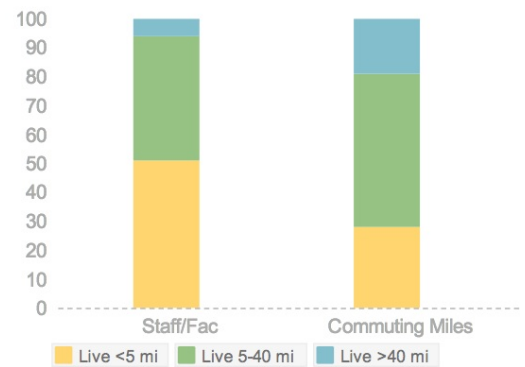
- Joined Department of Energy Workplace Charging Challenge and offered discounted vehicle charging to faculty and staff

- Rideshare Program offers \$2/day for alternative commute and public transit reimbursement up to \$100 per month

- Bicycle self-repair station installed

- Faculty Home Loan program encourages living within 5 miles; 51% of faculty and staff live within 5 miles

Proximity to Campus Corresponds with Miles Driven



25% more air miles flown for college-related travel over last year (8,804,224 air miles)



33% faculty/staff participation in rideshare and public transportation subsidy programs



Workplace Charging Case Study

featured by the California Plug-In Vehicle Collaborative

Waste

Key



completed



on track



obstacle



off track

Goal	Performance	Progress	Trend
Construction Achieve 90% diversion rate of construction waste to landfill by 2020	Diversion was at 89%, down 2% from last year. The recycling facility used by the City for construction recycling was unable to generate reports. Issue resolved in June.	89% GOAL 90%	
Total Waste Reduce total waste generated on campus, excluding construction, by 10% under FY09 to 1,155 tons	Total waste was 1,227 tons, a 6% reduction from last year	4% GOAL 10%	
Diversion Achieve 75% diversion rate of campus waste from landfill by 2020, excluding construction and ewaste	Diversion was at 59%, an improvement of 5% over last year	59% GOAL 75%	

Compost ↑ **17%**
 Compost on campus increased by 17% this year due in part to a 5 week dining compost competition

Electronic Waste ↑ **25%**
 Electronic waste increased by 25% over last year when non-Energy Star mini fridges moved out of the ReCoop sale to eWaste

Hazardous ↑ **100%**
 Hazardous waste on campus increased by 100% this year

2014

2014 Total Waste Breakdown



Landfill (42%)
Recycling (42%)
Compost (6%)
Green Waste (9%)
Hazardous & Electronic (1%)

Commitments

- Catering continued pilot use of 100 sets of reusable dishes
- Compost Awareness Week in October encouraged student participation, awareness & education of post-consumer composting program
- 17 tons of furniture was diverted between donations and ReCoop Office sales at Millikan project
- A compost competition in November between dining halls helped boost pre-consumer composting by 10 tons; won by Oldenborg
- Class Day 2014 used water dispensers, reducing the need for 3,000 bottled waters and the BBQ dinner was ZERO WASTE, composting utensils & dishes



23 tons diverted
 of used appliances, dorm furnishings, books, and more in ReCoop, earning \$12,774



58% of waste can be composted or recycled
 according to waste audit



6 tons of hazardous waste
 in 13-14 compared to 3 tons in 12-13

Water

Key



completed



on track



obstacle



off track

Goal

Performance

Progress

Trend

FY 10-14 2020 Goal

Water Use

Reduce 3-yr average water use, weather normalized, by 5% annually



The change in 3-yr average water use when weather normalized was -16%



GOAL MET



Water Meters

Meter 100% of major buildings for water



37% of major buildings metered for water this year



GOAL 100%



Meter 100% of all buildings for water



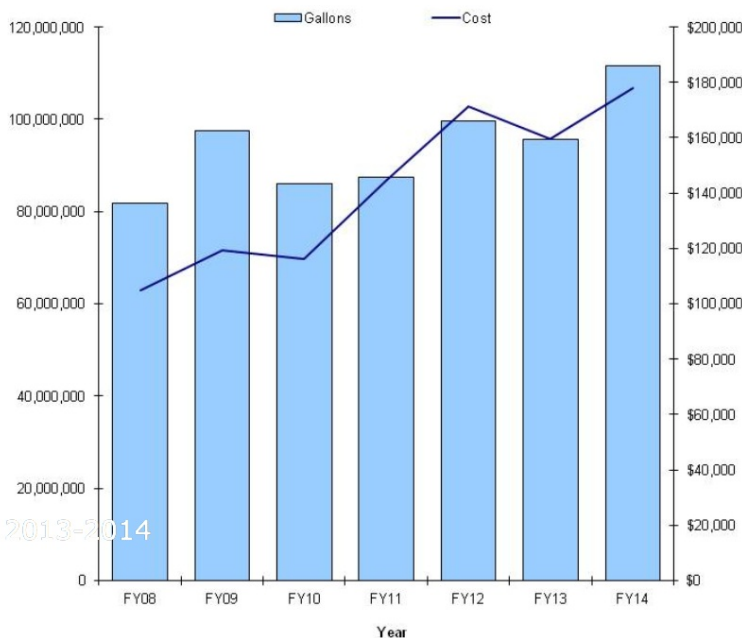
26% of all buildings metered for water this year



GOAL 100%



Annual Water Usage and Cost



Commitments

- Facilities & Campus Services developed a Drought Action Plan to reduce irrigation by an additional 20%, reduce walkway washing, water only at night, and install low-flow plumbing fixtures
- pH controllers installed on 10 cooling towers to reduce cycles and save a projected 2 million gallons per year
- New Studio Art building includes storm water management such as pretreatment hydrodynamic separators, a dry well, and gravel infiltration trench
- Water metering project installs meters in all residence halls and dining halls
- First annual Get Water Wise 3 week competition in residence halls wins Pomona national recognition as top 5 finisher in Campus Conservation Nationals
- Water increase this year attributed to demolition of Millikan, two major building projects, and removal of parking lots replaced by irrigated although drought-tolerant plantings



112 million gallons
of total water used on campus, up 17% from last year



6 inches of rainfall this year
Drought Action Plan created in response



3rd year of California drought
one of worst in state history