

2014-2015



SUSTAINABLE POMONA

SUSTAINABILITY ANNUAL REPORT

sustainability integration office
president's advisory committee on sustainability

Introduction

Welcome to the 2015 Pomona College Sustainability Annual Report. This is the seventh annual report tracking progress towards the ambitious sustainability goals and activities of Pomona College for the fiscal year ending June 30, 2015.

Sustainability is interwoven into the infrastructural and operational framework at Pomona College, and a consistent, long-term view guides us toward the future. We urgently recognize the limitations on natural resources and the impact we have on our surroundings. This recognition is an important component of our students' education. This year our students and faculty made outstanding research contributions to various complex environmental challenges.

Pomona College is a respected leader in sustainability. Our facilities, faculty and staff are making great strides and have been recognized this year for important research contributions, a bicycle-friendly campus, workplace charging initiatives, and building a best in class LEED Platinum STEM building and academic facility.

We hope you enjoy celebrating our successes and progress over the past year with us as you review this report.

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**President's Advisory
Committee on
Sustainability**

*Christopher Chinn, Chair 15-16
Thomas Moore, Chair 14-15*

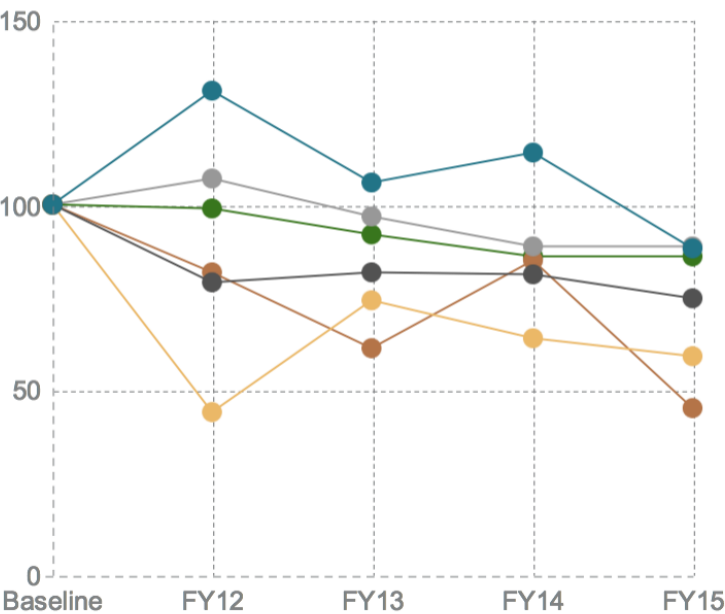
**Pomona College
Sustainability Integration
Office**

*Ginny Routhe,
Assistant Director Sustainability*

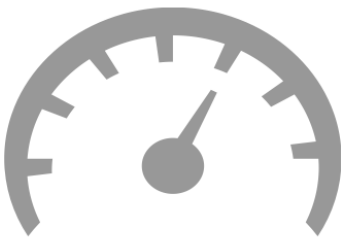
Annual Report Research Assistants:
Wesley Quevedo PZ '16 and Alexis Reyes

Executive Summary

Sustainability Progress Over Time



FY15 Performance vs. 3-Yr Baseline Average (FY08-10)



Emissions	reduced 16%
Communing	reduced 55%
Energy	reduced 11%
Sustainable Food	reduced 41%
Landfill Waste	reduced 25%
Water	reduced 12%

Highlights FY 2015

Admin

#15

Named in the top 50 Green Colleges by The Princeton Review

Food

49%

Local produce purchased

Buildings/ Grounds

P

Millikan earns LEED Platinum green building certification

Purchasing

0

Pounds of synthetic fertilizer purchased

Climate

25%

Reduction in commuting emissions from last year

Transportation

25%

Commuting trips were zero emissions

Ed

67%

Departments teaching sustainability-related courses

Waste

71%

Diversion rate from landfill

Energy

89

Kilowatts of solar photovoltaics installed this year

Water

16%

Reduction in total water use from last year

Administration

Key ● completed ● on track ● obstacle ● off track

Goal

Performance

Resources

Sufficient resources for sustainability operations and programs	●	Solid funding is in place for sustainability co-curricular programs and student-led projects. Spending on integrating sustainability in other facilities areas remains dispersed among department budgets and subject to the discretion of the managing director. 58%
	●	President's Sustainability Fund granted \$5,000 to student proposals for operational/ infrastructural sustainability improvements. Funded projects include turf removal, expanded campus composting, reusable cups at Coop Fountain, and water bottle refill stations.
	●	The Sustainability Integration Office relocated from the portable trailer in the Kenyon House parking lot to the lower level of Harwood Court-- a more centrally located space for campus and particularly first year students.
	●	The Sustainability Integration Office (SIO) budget covered educational events like PowerDown, the EcoReps program, and increased educational signage. 58% 75%

Staffing

Sufficient staffing for sustainability programs and operational/ infrastructural sustainability goals progress	●	Farm Manager position refunded. Energy manager position vacant August through June; Contract position for part-time LEED Analyst added to the SIO in November.
	●	Student staffing for programs continues to be generous with 76 students staffing the EcoReps, ReCoop/ Clean Sweep, compost, Green Bikes programs, and about 20 hours a week of student support in the SIO.

Consortium Committee

Goal of an existing consortium sustainability committee for collaboration and information sharing	●	Cross-campus collaboration on the 5C PowerDown continued with regular weekly meetings. No other committee is being pursued at this time.
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Local Partnerships

Goal of strong partnerships with local sustainability groups and organizations	●	Pomona College pledged its support and assistance to efforts of the Claremont Energy Challenge, assisting the City and Sustainable Claremont/CHERP with seeking to win the national city-wide energy competition and the \$5M Georgetown Energy Prize.
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#15

The Princeton Review's Top 50 Green Colleges

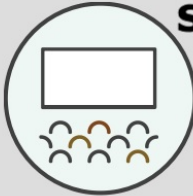
Pomona is ranked at #15 in the top 50 Green Colleges in The Princeton Review's 2015 Guide to 353 Green Colleges.

STARS Rating
Pomona resubmitted for an updated STARS rating anticipating Gold Rating.

Workplace Charging Challenge
Joined USDOE, committing investment in electric vehicle charging stations for employees.

Bicycle Friendly University
Pomona receives Bronze designation by League of American Bicyclists

LEED Gold
New Studio Art Building receives Gold certification by USGBC



Pomona Welcomes Over 1,000 to Sustainability Conference

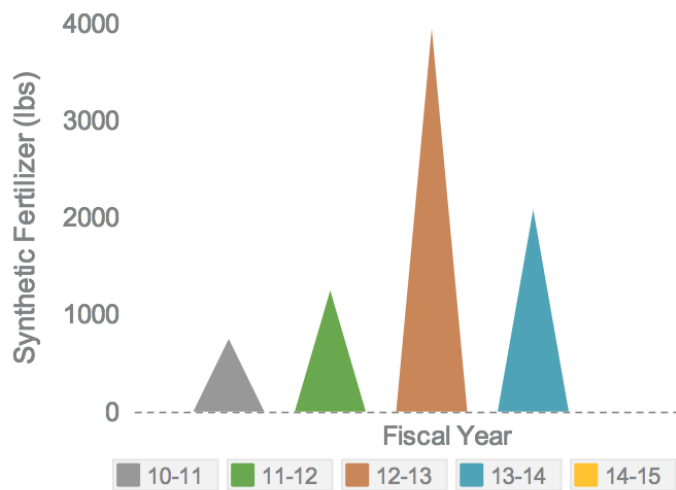
Renowned speakers Vandana Shiva and Bill McKibben join crowd at Pomona in June at the Seizing an Alternative/ Toward an Ecological Civilization global conference

Buildings & Grounds

Key ● completed ● on track ● obstacle ● off track

Goal	Performance	Progress	Trend
Fertilizers Purchase 0 pounds of synthetic fertilizer by 2020	● 0 pounds of synthetic fertilizers were purchased, meeting the 2020 goal	FY09 9,250 0 GOAL 0	
Refrigerants Achieve 25% reduction under FY09 to 202 pounds of refrigerant use by 2020	● 342 pounds of refrigerants were used last year as HVAC inventory was stocked	FY09 269 No Progress GOAL MET	
Green Building Achieve 100% compliance with Green Building Standards	● Of the projects this year, Millikan was 97% and Museum of Art so far is 100% compliant	<div><div>97%</div></div> GOAL 100% <div><div>100%</div></div> GOAL 100%	Data not available

Synthetic Fertilizer Application



Green Building Commitments

- Draper Center seeking LEED certification for 2014 renovation
- Studio Art certified LEED Gold
- Millikan's landscaping improvements include infiltration trenches and a 75-foot long bioswale, retaining 66% more storm water than the previous building and using 60% less water than traditional landscaping
- Millikan's windows transmit 50% less unwanted solar heat gain and insulate 50% better than standard glass
- 21% of the materials used to construct Millikan contain reused or recycled content, and 10% were sourced regionally
- 210 solar photovoltaic panels, rated at 69 kW are on the roof of the Argue Colloquium and will be mounted on Seaver North Auditorium
- Low-flow plumbing features in Millikan result in a 42% water use reduction
- Millikan is the first building in higher education to feature the LEED Dynamic Plaque

4 EA students conduct LEED EBOM gap analysis to pursue LEED EBOM certification for Seaver laboratories



More than 3 acres of turf removed across campus in response to the California Drought



62,000 square feet of permeable ground added with work done on campus

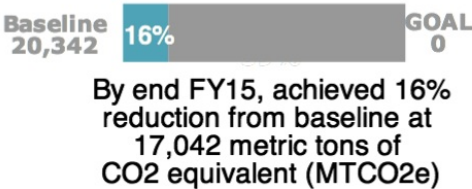
Climate Neutrality

Key ● completed ● on track ● obstacle ● off track

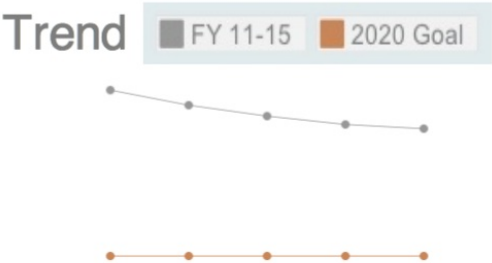
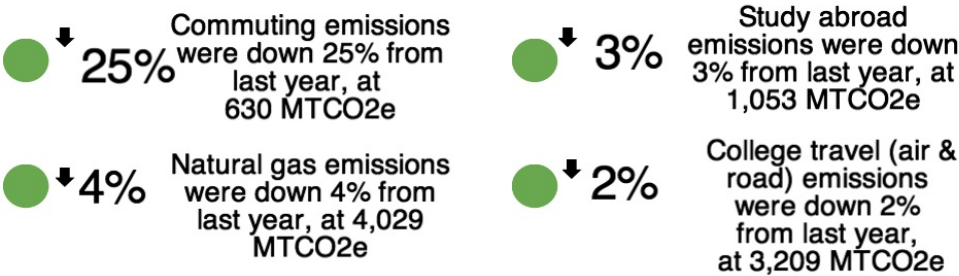
Greenhouse Gas Emissions

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

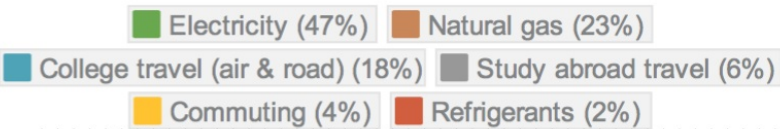
Progress



Performance FY 14



14-15 Emissions by Source



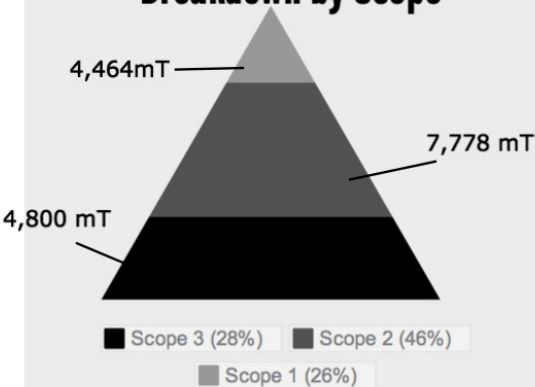
Commitments



Additional Emissions Note

The Campus Carbon Calculator by Clean Air-Cool Planet updates emissions factors every year, making greenhouse gas numbers a moving target. The calculator v8.0 was used in these calculations.

Breakdown by Scope

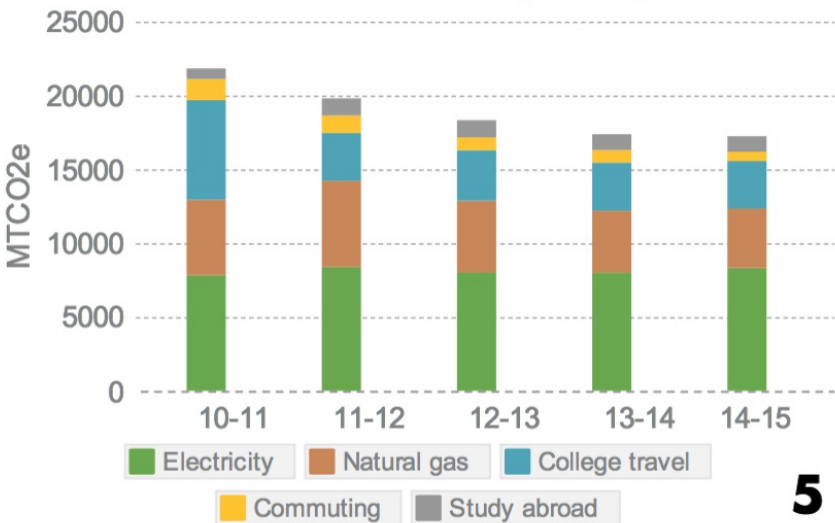


Scope 1: sources controlled by the college (natural gas, refrigerants, diesel, campus fleet, fertilizer use)

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
Sust-Focused Courses Maintain a general increase in sustainability-focused courses offered	● Sustainability-focused courses were 4% of total courses offered, under baseline year	<div><div>FY09 5%</div><div>No Progress</div><div>GOAL 16%</div></div>	<div><div>FY 11-15</div><div>2020 Goal</div></div>
Sust-Related Courses Maintain a general increase in sustainability-related courses offered	● Sustainability-related courses were 9% of total courses offered, a 13% increase from last year	<div><div>FY09 2%</div><div>9%</div><div>GOAL 13%</div></div>	

The Farm

Urban farming education

Education abounded on the Farm with 25 tours, the first annual Food Week, local cooking and beekeeping classes and donations to the Coronado Gardening Project



1500+ lbs of produce

consumed by the Farm Stand, Sagehen Café, Walker Coffeehouse, and Summer Produce Boxes. Provided weekly herb box for Frary Dining Hall and sold microgreens and edible flowers to the Junction in the Claremont Village



23 Farm plots maintained

by students, faculty, staff, and community members volunteering over 700 volunteer hours

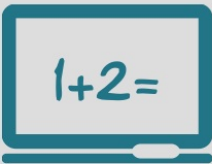


Research Commitments

- Received a \$100,000 exploratory grant from the Luce Foundation to integrate Asian and Environmental Studies, aimed to the college's curriculum and research
- Marc Los Huertos' students researched in the field on food and agricultural for non-government organizations, colleges, and local government
- EA 1919 Thesis class researched "The Eco-Sustainable Initiative: Case Study in and Evaluation of Eco-labeling"(by Chiara Dorigo) and "An Examination of El Nino's and Agricultural Runoff's Effect on Harmful Algal Blooms and California Sea Lion (Zalophous Californianus) Health in Monterey Bay" (Nadine Lafeber)
- Joyce Nimocks 14' was awarded the Watson Fellowship to work with various communities, artisan groups and farmers to discover the methods of local ingredients to create sustainable, handmade cosmetics and the process of culture preservation
- Alonso Iniquez 14' recieved a Fullbright Fellowship Grant to research in Columbia to test the hologenome theory to understand the preservation of coral reef ecosystems.
- John Jurewitz researched electric utility customer energy efficiency program policy
- Jade Star Lackey published in Elements, "Global continental arc flare-ups and their relation to long-term greenhouse conditions"

26 students in sustainability internships

through the Pomona College Internship Program (PCIP) were related to sustainability - 14% of total internships



67% of Pomona departments teaching sustainability-focused or related courses



184 sustainability courses offered at the 5Cs either focused exclusively or sustainability-related

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	● off track 2% of students were signed up to receive the sustainability newsletter	FY10 12% No increase GOAL 19%	
Faculty/Staff Newsletter Maintain a general increase in faculty/staff sustainability newsletter signups	● on track 20% of faculty/staff were signed up for the sustainability newsletter, an 18% increase from last year.	FY10 20% 20% GOAL 28%	
Green Offices Achieve 30% of offices participating in Green Office Program	● on track 22% of Pomona College offices received a Green Office rating, an increase of 16% from last year	22% GOAL 30%	

PowerDown/Get WaterWise Competition

957
5C pledges
to reduce energy and water use in this nationwide competition

8,960
gallons

of water saved by Harwood Court alone during the three-week competition

-12.2% energy usage

By Mudd Blaisdell, in first place, and Norton leading WaterWise with a -13.1% reduction.

Commitments

- The Organic Farm offered free bi-weekly cooking workshops in which students and community members were taught how to cook a dish with ingredients from the Farm
- Green Bikes maintained a fleet of 238 bikes during the '14-'15 school year, collecting approximately 65 abandoned bikes over the year
- Moonrise kicked off the school year, uniting over a dozen student sustainability-themed groups with booths and concerts on the Smith Campus Center lawn
- Green Bikes hosted a ladies, trans + Genderqueer Bike Night in February
- Draper Center's Coronado Garden Project built six garden beds at the high school
- Ralph Cornell Native Planting Society raised water awareness with a Chat 'n Chew with Pomona Student Union and worked with the Grounds crew to help flag malfunctioning sprinkler heads



138 staff and faculty subscribe
to receive the monthly sustainability newsletter



Petrochemical America Art Exhibit
Pomona College Museum of Art presented the traveling exhibition: Petro-LA in the fall



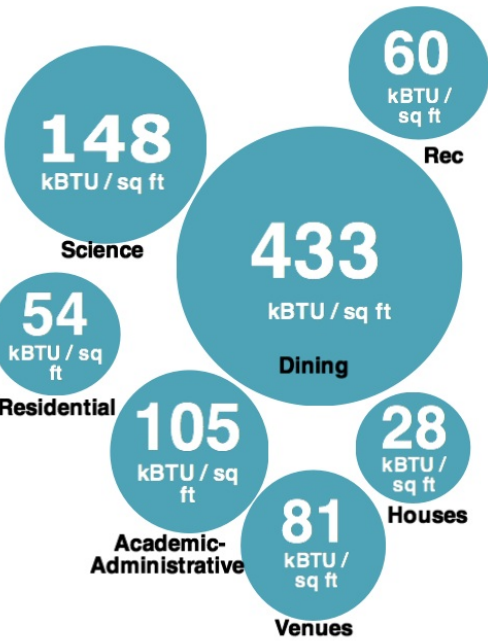
EcoReps raise awareness of food & water nexus
tabling for Drought Awareness

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 0.8% from last year, despite increases in campus sqft, at 48,828,973 kWh	12% GOAL 15%	
Renewables Increase onsite renewable energy production to 4% of total energy use by 2020	● Onsite renewable production increased to 1.7% of campus energy, up from the previous year due largely to additions at Studio Art	1.7% GOAL 4%	
Diesel Generators Reduce diesel fuel use in backup generators by 30%, under FY09 to 930 gallons	● Diesel used for backup generation was 567 gallons, under the 2020 goal	567 GOAL 930	

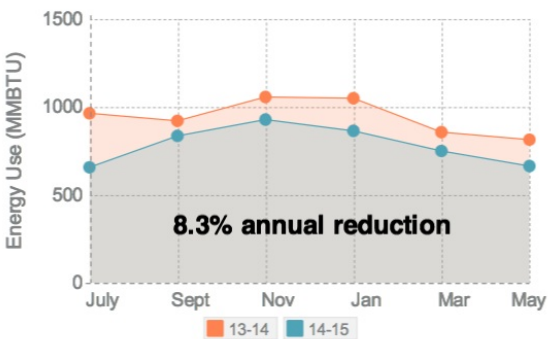
Energy Intensity by District



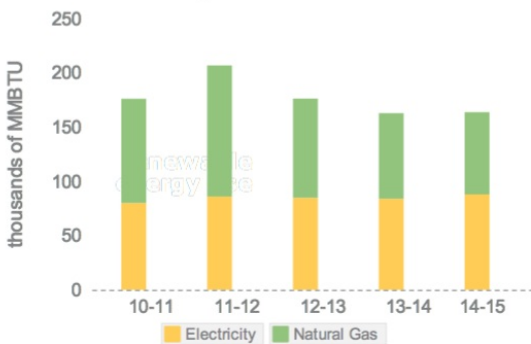
Commitments

- Retrocommissioning project continues at the Seaver Laboratories, with controls optimization, supply water temperature resets, lab fume hood controls upgrade, and central plant re-engineering
- Energy efficiency measures implemented from energy audit findings at Lincoln-Edmunds, Seaver Theatre, Smith Campus Center and Alexander Hall
- Outdoor lighting retrofit of pole lighting to LEDs
- Campus-wide boiler and chiller reset

Seaver Laboratories RCx



Electricity/Natural Gas Use



28% reduction
largest reduction of energy use per square foot on campus in science sector



21% of campus buildings audited
with SAP goal to complete audits of all campus buildings by 2020



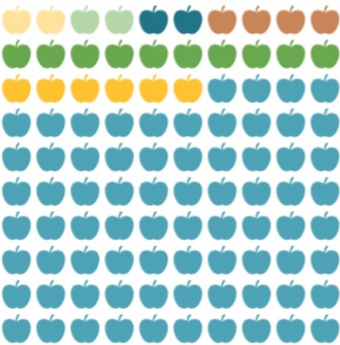
Warmer year makes A/C work harder
and heat work less hard with 13% fewer heating degree days and 8% more cooling degree days

Food

Key ● completed ● on track ● obstacle ● off track

Goal	Performance	Progress	Trend
Purchases Purchase 30% sustainable food (local, organic, fair trade, or humane) by 2020	● 23% of food purchased was sustainable, an 8% reduction from FY14	<div><div>23%</div><div>GOAL 30%</div></div>	
Purchase 10% sustainable food in more than one category (local, organic, fair trade, or humane) by 2020	● 4% of food was sustainable in 2 or more categories, a 43% decrease from FY14	<div><div>4%</div><div>GOAL 10%</div></div>	
Local Produce Purchase 60% of produce from farms within 250 miles by 2020	● Local produce purchased was 49% local, a 16% decrease from FY14	<div><div>49%</div><div>GOAL 60%</div></div>	
Seafood Purchase 100% sustainable seafood by 2020	● Seafood purchases were 35% sustainable, a 25% improvement from FY14	<div><div>35%</div><div>GOAL 100%</div></div>	

Food Purchases



Commitments

- Meat served on the grill at the dining halls is certified humane
- Only in-shell cage-free eggs are purchased in our operations, keeping about 1,500 chickens out of cages this year
- The College renewed its Marine Stewardship Council chain-of-custody certification again this year; seafood sourced from producers that meet MSC sustainability guidelines
- All milk is rBST free, meaning cows are never given bovine growth hormones to stimulate production
- Most of our bread comes from a local Glendora Bakery that is a branch run by Azusa Pacific University (12 miles from campus)

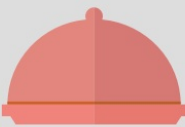
Local pole-caught, MSC albacore tuna

sourced entirely from American Tuna in San Diego, sustainably harvested and no waste



53% Fair Trade

non-carbonated beverages are served under Pomona's designation as a Fair Trade University



9th Annual Organic Dinner

took place April 19th at Frank Dining Hall, showcasing an entirely organic menu

Purchasing

Key ● completed ● on track ● obstacle ● off track

Goal	Performance	Progress	Trend
White Copy Paper Select 100% post-consumer waste, Forest Stewardship Council, chlorine free white copy paper for 90% of purchases	● 0% of white copy paper purchased by the College was 100% recycled although 56% has some recycled content	No Progress	GOAL 90%
Non-Standard Paper Select 30% post-consumer waste for 90% of non-standard (size, color) paper by 2020	● 1% of non-standard copy paper purchased by the College was 30% recycled, down from 7% last year	1%	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	No Progress	GOAL 100%
Operations & Maintenance Standards Achieve 100% compliance with Sustainable Operations and Maintenance Standards	● 62% compliance with OMS - an 11% improvement from last year	62%	GOAL 100%

Commitments

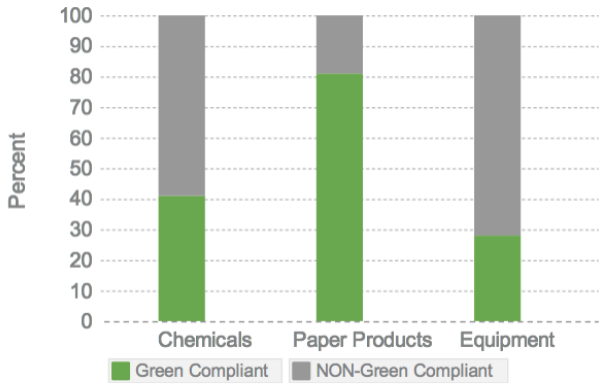
- A Housekeeping committee was formed to test and approve more green chemical alternatives
- 100% of Green Offices were styrofoam-free
- 98% of computers purchased were Electronic Product Environmental Assessment Tool (EPEAT) Gold
- ITS reworked student paper printing fees in collaboration with the SIO to encourage more thoughtful printing
- The Green Office Program recognizes offices that purchase recycled paper, fair trade and organic beverages, and Energy Star appliances

Recycled Paper Purchased



100% (0%) 30% (59%) 0% (41%)

Green Housekeeping Purchases



3% less paper purchased
than last year at 39,815 lbs total



8% more green cleaning
chemicals used this year compared to last



12 cases of paper avoided
with the move from table tents to quarter sheet ad displays in dining halls

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 5,928 gallons, 19% less fuel than the year previous	FY09 7796 gallons 5,928 GOAL 4300 gallons	
Alternative Fleet Alternatively fuel 50% of campus fleet vehicles	● off track 3% of campus fleet is alternatively fueled, with no new alternative vehicles for 6+ years despite an avg. of 3 new vehicles each year	3% GOAL 50%	
Vehicle Purchasing Achieve 100% compliance with sustainability standards for vehicle purchasing	● completed 100% of vehicles purchased last year complied with Sustainability Action Plan Global Warming Score standard for their class	GOAL MET GOAL 100%	
SOV Commuting Reduce commuter single-occupancy vehicle miles by 10% under FY09 to 2,163,588 miles	● completed Total SOV miles was 1,580,804 miles, under the 2020 goal	GOAL MET GOAL 2163588 miles	
Commuting Miles Reduce total commuting miles by 5% under FY09 to 3,429,848 miles	● completed Total commuting miles was 2,201,780, under the 2020 goal	GOAL MET GOAL 3429848 miles	

Commuting

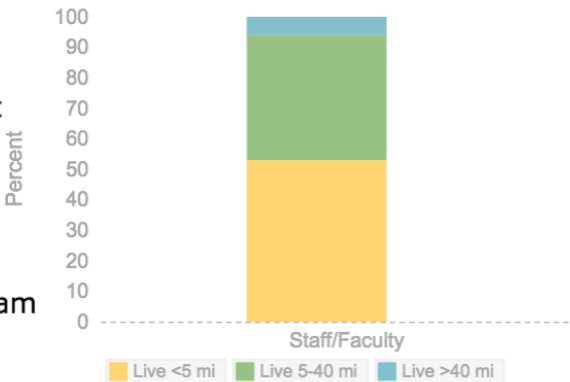


Drive alone (59%) Walk/Bike (25%) Carpool (13%) Public Transit (3%)

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

Faculty/ Staff Commuting Distances



1,617 bike racks on campus
encourage student and faculty/staff commuters



13 miles
average commuting distance of faculty/staff, down 34% from FY14



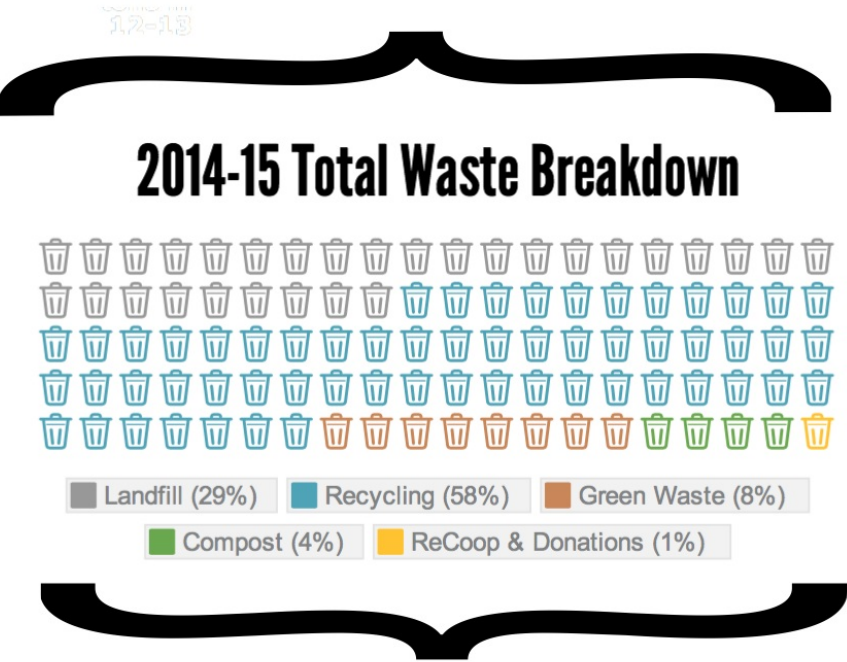
Workplace Charging Challenge
Pomona joined Dept. of Energy challenge to provide elective vehicle charging

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 88%, down 1% from last year	<div><div>88%</div></div> GOAL 90%	
Total Landfill Waste Reduce total waste sent to landfill, excluding construction, by 10% under FY09 (686) to 624 tons	● Total landfill waste was 474 tons, a 7% decrease from last year	GOAL MET	
Diversion Achieve 75% diversion rate of campus waste from landfill by 2020, excluding construction and ewaste	● Diversion was at 71%, an improvement of 20% over last year reflecting scrap metal recycling	<div><div>71%</div></div> GOAL 75%	

Landfill ↓ 7%	Landfilled waste decreased by 7% this year, due in part to increased recycling and Zero Waste Class Day events	Recyclables in Trash ↓ 3%	Spring 2015 Waste Audit reveals a decrease of recyclables showing up in the trash on campus	Hazardous ↓ 50%	Hazardous waste on campus decreased by 50% this year
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- ### Commitments
- Catering continued successful reusable dish requests on Catertrax
 - Commencement weekend zero waste events expanded from Class Day dinner serving 2,200 to also include the 2,400 guests at department receptions and meals
 - Greenware program of the Sustainability Integration Office (SIO) services events for 700 individuals, replacing disposables with reusable dish ware
 - ReCoop Book Room in Walker increases online inventory of used textbooks on Sagebooks to 3,500, supplying 600 textbooks for students and revenues of \$2,112

2+ tons find new homes in ReCoop Office
with unwanted file cabinets, desks, office supplies shuffling to new offices rather than the landfill

Potential of 11% additional waste diverted
according to Waste Audit if composting program expanded to include meat and plates/ utensils

454 tons of scrap metal recycled
Maintenance reported this year

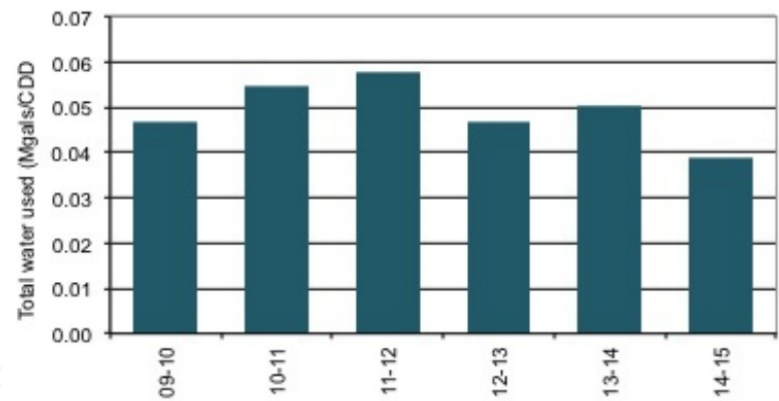
Water

Key ● completed ● on track ● obstacle ● off track

Goal	Performance	Progress	Trend
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 -12%	-12% GOAL MET	
Water Meters Meter 100% of major buildings for water	● 62% of major buildings metered for water this year	62% GOAL 100%	
Meter 100% of all buildings for water	● 52% of all buildings metered for water this year	52% GOAL 100%	

Water Use per Cooling Degree Day

Water use per cooling degree day (CDD)



Commitments

- The campus Drought Action Plan continued to call for reductions, with irrigation run-times limited now to just two days per week
- Installation continues of 400 more 0.5 GPM sink aerators across campus this summer
- 3.21 acres of turf grass and irrigation removed in anticipation of further landscaping reductions
- Water sub-metering continued with expansion to Oldenborg, Rains Center, and the Smith Campus Center, all large volume users of water
- Overall water use was down 16% from last year, the lowest it has been in four years, despite hotter weather and an 8% increase in cooling degree-days.
- Student interest and support for water conservation measures drives campus conservation
- State-wide mandates and Level II water supply shortage in Claremont requires the College to reduce water use by 32% from June 2013 levels



92.5 million gallons
of total water used on campus, down 16% from last year



Low rainfall this year
California Drought continues into fourth year



400 more sinks convert to 0.5 GPM
(gallons per minute) across campus