



WELCOME TO USC EARTH DAY 2020 SCelebration

USC Sustainability
[GREEN.USC.EDU](https://green.usc.edu)



GROUND RULES FOR FORUM

- Attendees will be on automatic mute to control background noise
- Please unmute yourself when it's your turn to speak
- All slides will be presented from host computer
- Office of Sustainability will advance speakers' slides as requested – **say “NEXT SLIDE”**
- Post questions in chat box; sustainability team will respond at the end
- Ground rules, agenda, and other resources in a Google Doc (see Zoom chat box)

AGENDA

- Office of Sustainability Introduction & Ground Rules (3:00 - 3:05 PM)
- Dr. Folt Welcome (3:05 – 3:15)
- Environmental Student Assembly (3:15 - 3:20 PM)
- USG Leadership 2020-21 (3:20 - 3:25 PM)
- Presidential Working Group (3:25 - 3:30 PM)
- FMS Energy & Water (3:30 – 3:35 PM)
- FMS Waste (3:35 – 3:40 PM)
- Transportation (3:40 - 3:45 PM)
- Auxiliary Services (3:45 - 3:50 PM)
- Office of Sustainability – 2020 Goals/Zero Waste Coliseum + Galen Center (3:50- 3:55 PM)
- Capital Construction & Development (3:55 – 4:00 PM)
- USG Sustainability (4:00 - 4:05 PM)
- Wrigley Ambassadors (4:05 - 4:10 PM)
- OoS - 2028 Planning (4:10 - 4:15 PM)
- Question & Answer Session (4:15 - 4:30 PM)

Followed by Earth Day Meditation from 4:30 - 5:00 PM

USC SUSTAINABILITY 2020 GOALS

Overview



ENGAGEMENT



ENERGY



TRANSPORTATION



PROCUREMENT



WASTE



WATER



EDUCATION

Environmental Student Assembly



The background of the slide is composed of several overlapping, semi-transparent geometric shapes in various shades of green and teal. These shapes create a layered, modern aesthetic. The bottom of the slide transitions into a solid white area.

What do we do?

Programming



- We host dozens of events a year
 - Promoting sustainability, education, awareness
- Signature Events
 - VegFest
 - Earth Month
 - Sustainability Forums

Advocacy



- We run year-long advocacy campaigns focused on achieved measurable goals
- Advocacy Accomplishments
 - Meatless Mondays
 - Transit subsidy
- Ongoing Projects
 - Divestment
 - Pre-Enrollment Sustainability Training
- ESA is represented on
 - Sustainability Steering Committee
 - The Working Group for Sustainable Education, Research and Operations

Green Engagement Fund

USC Green Engagement Fund



- Student-run fund with approx. \$30,000 for student-led sustainability projects
- Fund will re-open for applications next semester
- ESA will have a GEF Coordinator position
- Meeting currently being scheduled to obtain more detailed action plan

How can you get involved?



- We still meet on Zoom every Tuesday from 8-9PM PST!
- Email us at uscса@usc.edu
- Welcome our new Directors !
 - Jackson Fitzgerald
 - Jenni Hunting
 - Dillon Cranston



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FMS / CCD: WASTE, WATER + ENERGY

April 2020: Earth Day Celebration



PRESENTATION AGENDA

01

Green House Gas Inventory

02

Water Update

03

Energy Update

04

Waste Management Update

GHG INVENTORY



GREENHOUSE GAS EMISSIONS INVENTORY

PURPOSE

- Provide insight into USC's GHG management to date
- Guide future energy, program and infrastructure developments.
- Conducted by GHG Consultant
- Goal- Reduce Scope 1 + 2 GHG emissions per square foot by 20% from 2014 levels to 2020.

DEFINITION OF SCOPE

- Scope 1 Emissions: GHG resulting from burning fuel and using chemicals on campus.
- Scope 2 Emissions: GHG resulting from LADWP generating electricity used on campus.
- Scope 3 Emissions: GHG resulting from indirect sources like campus commuting, air travel, etc.

ABSOLUTE V NORMALIZED

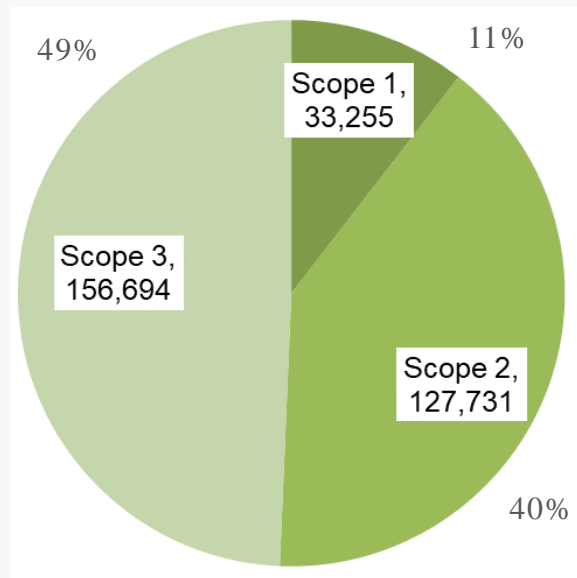
- Absolute- Actual number of metric tons of carbon dioxide.
- Normalized- Metric tons of carbon dioxide adjusted to account for campus growth.

GREENHOUSE GAS EMISSIONS SUMMARY

FINDINGS

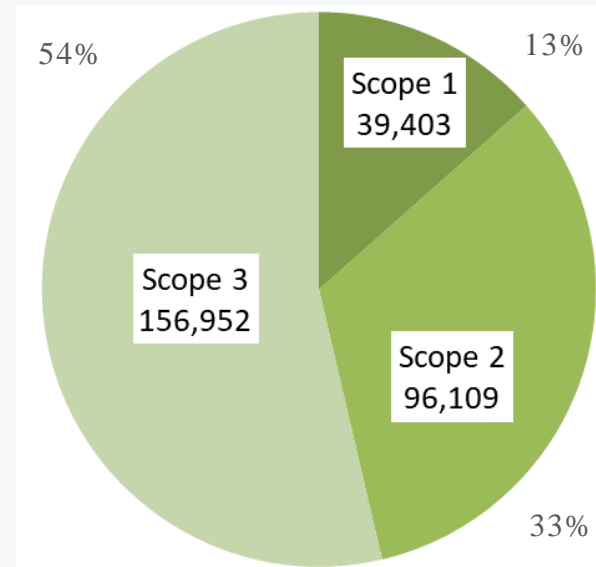
- Total Emissions (Scope 1, 2 + 3)
 - Absolute- 8% drop
- Scope 1 + 2 Emissions
 - Emissions allocation by scope shifted.
 - Absolute- 16% drop
 - Scope 1 absolute- 19% increase
 - Scope 2 absolute- 24% drop
 - LADWP's carbon intensity dropped by 31%
 - USC improved its building energy efficiency by 11%
 - Normalized (per square foot) emissions dropped by **33%**

2014



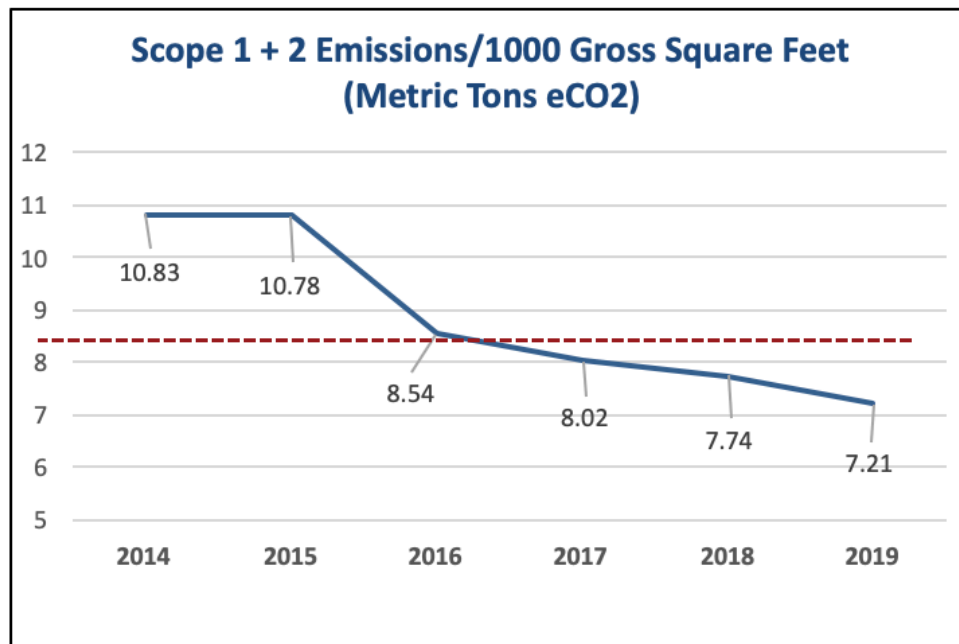
Total- 317,679 CO2

2019



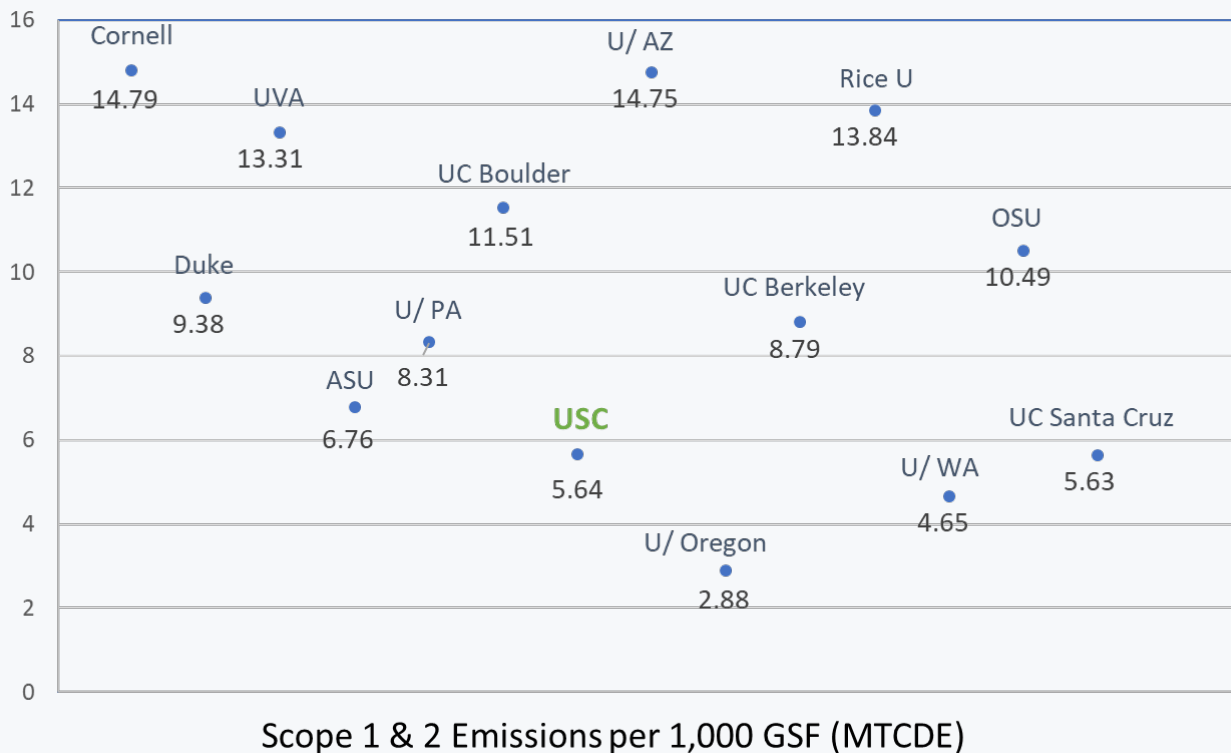
Total- 292,463 CO2

SCOPE 1 + 2 EMISSIONS TRENDS: 2014-2019



20% reduction target

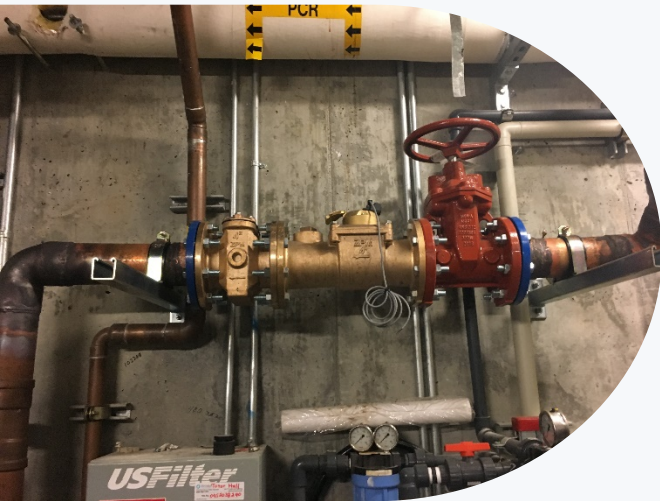
COMPARISONS: NORMALIZED GHG EMISSIONS



WATER UPDATE



WATER UPDATE



UPDATING FIXTURES

Replacing sink faucets, academic/administrative showerheads, and other fixtures with new, low-flow models.

DROUGHT-TOLERANT LANDSCAPING

Wherever possible, drought-tolerant plants are being incorporated at UPC and HSC. Yielded up to 43% water savings for the converted areas.

SMART IRRIGATION

Most UPC landscaping uses drip irrigation and 75% HSC is converted. The difference in usage for a spray head versus a drip emitter is 120 gallons/hr v 0.5 gallons/hr.

WATER METERS

Main focus of winter effort. Team has installed 17 water sub-meters at UPC to provide detailed data on water usage—information that will better inform our water conservation plans moving forward.

ENERGY UPDATE



ENERGY UPDATE



Photo Credit: Gus Ruelas

DASHBOARD

Digital dashboard with real-time energy use at UPC and HSC + historical water and gas usage. By broadening awareness of how we're using resources.

HVAC SCHEDULING

Scheduling has been implemented in 18 buildings, 237 classrooms, + 40 air-handling units, and we're registering energy savings at or above projected levels.

LED LIGHTING INSTALLATION

In the process of obtaining proposals for several projects. Over winter LED retrofits at Lyon Center, Grand Avenue Parking, Pacific Asian Museum and HSC bookstore.

HOUSING COMPETITION

Meters have been added to the North Housing Complex, for a more robust competition where all halls are able to track usage.

SOLAR PV

The 600 kW system at Galen Center continues to move forward. Through a joint effort with all stakeholders, safety has been given the utmost priority and precautions were immediately put into place. Target project completion is summer.

OTHER

Work continues forward on EBEWE, 2028 Planning and Current Energy Efforts.

GALEN SOLAR PROJECT



WASTE MANAGEMENT UPDATE



RONALD TUTOR CAMPUS CENTER

USC ZERO WASTE PLAN

STAGES:

Phase 1- Interviews

Phase 2 – External Waste Audits and Study

Phase 3- Internal Buildings Audit

Phase 4- Integrated Zero Waste Plan

WASTE COMPOSITION STUDY

OBJECTIVES

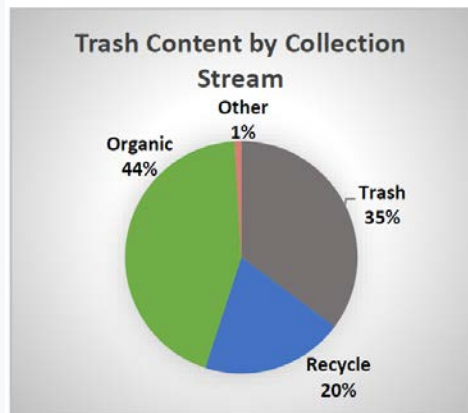
- Take a representative sample of materials from Trash, Recycling, and Organics Recycling Bins
- Sort materials into 15 categories
- Identify opportunities to increase diversion



WASTE SAMPLE: TCC/STABLER HALL/POPOVICH CAFE



AHF: ALLAN HANCOCK FOUNDATION



Trash Composition by Category

Material	%
1A – Uncoated Corrugated	3.2%
1B – Mixed Recyclable Paper	9.4%
1C – Compostable Paper	25.8%
2A – Plastic Containers	3.9%
2B – Durable Plastic	0.0%
2C – Non-Recyclable Plastic	7.5%
3 – Metals (All)	2.0%
4 – Glass (All)	1.4%
5 – Green Waste	0.0%
6A – Post-Consumer Food	9.7%
6B – Pre-Consumer Food	0.0%
6C – Textiles and Carpet	6.0%
7 – HHW, E-Waste, Bulky, Etc.	0.9%
8 – Liquids	2.5%
9 – Mixed Residue	27.7%

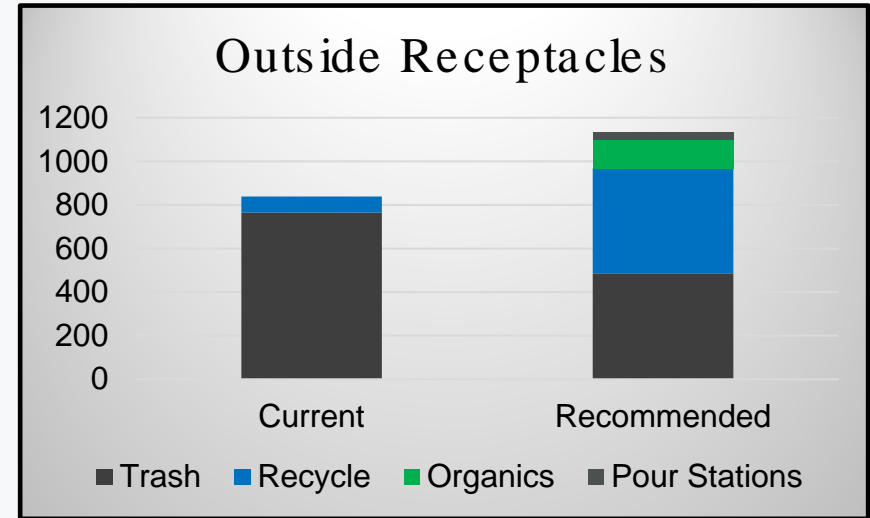
Recycle Composition by Category

Material	%
1A – Uncoated Corrugated	32.5%
1B – Mixed Recyclable Paper	52.2%
1C – Compostable Paper	1.1%
2A – Plastic Containers	2.5%
2B – Durable Plastic	0.0%
2C – Non-Recyclable Plastic	3.4%
3 – Metals (All)	0.4%
4 – Glass (All)	2.0%
5 – Green Waste	0.0%
6A – Post-Consumer Food	2.5%
6B – Pre-Consumer Food	0.0%
6C – Textiles and Carpet	0.0%
7 – HHW, E-Waste, Bulky, Etc.	0.0%
8 – Liquids	2.1%
9 – Mixed Residue	1.1%

OUTSIDE RECEPTACLE SURVEY

OBJECTIVES

- Assess the type, utilization, and placement of existing waste receptacles
- Make recommendations to:
 - Remove unnecessary receptacles
 - Improve availability of recycling and organics receptacles



RECEPTACLE PLACEMENT RECOMMENDATION

KEY:

Rem = Remove

+ R = Recycle

+ O = Organics

+ P = Pour





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EARTH DAY

AUXILIARY SERVICES UPDATES





HOUSING

- **Partnered with FMS and a 3rd party by sub-metering 9 energy meters at North complex.**
 - Allowing us to better manage consumption being used in order to change patterns and implement strategic conservation programs.
- **Water conservation engagement to continue.**
 - Offering of shower timers
 - Low flow fixtures staying updated.
- **Implemented a Composting program**
 - Installed 40 bins within the following locations: Troy Hall and New North Residential College, Marks Tower, Parkside Apartments, Nemirovsky & Bohnett Residential College.
 - 20 bins still scheduled to be installed in more locations such as the Village, Cardinal and a central offsite location for other areas.
- **Plan to have composting in all USC Housing managed facilities by commencement 2021, while partnering the program with our recycling efforts.**
- **Sustainability Living Guide currently being revamped and updated for Fall 2020.**



HOSPITALITY

- Plan has been established to eliminate single use plastics and plastic beverage bottles based on guidelines by the University.
- Several locations getting green restaurant certified.
 - Moreton Fig is now certified. The Lab is in process and plan in place to begin process for our dining halls
- USC Catering & Special Events are currently Zero Waste operations also partnering with FMS and our campus partners to lead the charge on all campus events to be Zero Waste.
- Implementing Meatless Monday programming for dining halls beginning Fall 2020 in partnership with ESA.
- Continuing partnerships with Faculty on sustainability
 - Partnered with Faculty & Students of three ENST 320a classes during the academic year on a project focusing on the environmental impact and wasted resources associated with post-consumer waste in the residential dining halls
 - Partnered with Faculty & students in Marshall School of Business on a Waste diversion strategy using a Digital Technology platform for retail dining.



HOTEL

- **Green Seal Certified at Silver level.**
 - Green Seal is a U.S. nonprofit, that evaluates a hotel's waste reduction, energy consumption, water management, pollution minimization and eco-friendly purchasing.



BOOKSTORE

- **Continue to host programs educating on sustainability**
 - “Appy Hours” educated our campus community on the use of various technology platforms reducing our uses of natural resources creating waste.
- **Partnering with eco-friendly vendors in regards to their products being sustainable as well as packaging and shipping methods.**
- **Added “Earth Grad” a new custom gown regalia which is sustainable and eco-friendly, replacing the previous non eco-friendly custom gown regalia**

USC SUSTAINABILITY 2020 GOALS

Progress as of January 2020

Goals (compared to 2014 baseline)	Achieve goal by December 2019	Projected to achieve goal by December 2020
Energy Conservation		
Reduce greenhouse gas emissions per square foot by 20% from 2014 levels	Yes	Yes
Capitalize on energy risks and opportunities	Yes	Yes
Transportation		
Reduce single-occupancy vehicles traveling to/from USC's campuses	Yes	Yes
Expand participation in alternative transportation programs	Yes	Yes
Waste Diversion		
Achieve 75% waste diversion rate	No	No
Expand diversion and recycling programs and increase awareness	Yes	Yes

USC SUSTAINABILITY 2020 GOALS

Progress as of January 2020

Water Conservation		
Decrease potable water use by 25%	No	No
Increase awareness of conservation practices	Yes	Yes
Implement audience-appropriate educational campaigns	Yes	Yes
Procurement		
Engage 75% of USC departments in responsible purchasing practices	No	Yes
Purchase 20% of food from sustainable sources	Yes	Yes
Engagement		
Increase awareness of sustainability practices	Yes	Yes
Establish USC as a living laboratory for sustainability	No	Yes
Engage the broader community in sustainability	Yes	Yes

USC SUSTAINABILITY Engagement

2019-2020
Sustainability
Awareness Multi-
platform Media
Campaign

Energy
Waste
Water
Transportation

OUR FUTURE IS SUSTAINABLE

USC is rolling out new tools and programs to make our campus more sustainable.

ALL Trojans can make small behavior changes that have a big environmental impact.

HERE'S WHAT **USC** IS DOING!



ENERGY EFFICIENCY
AUDITS FOR
CAMPUS BUILDINGS

HERE'S WHAT **YOU** CAN DO!



TURN OFF THE
LIGHTS WHEN YOU
LEAVE A ROOM

USC SUSTAINABILITY Engagement

Bus Shelters on 34th Street





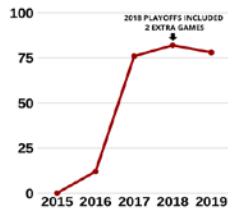
2018 VS 2019 FOOTBALL SEASON WASTE DIVERSION COMPARISON

2018 FAN
ATTENDANCE
962,047

2019 FAN
ATTENDANCE
793,655

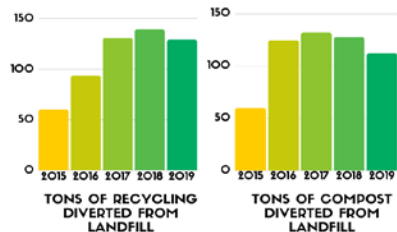
2018
DIVERSION
RATE
91%

2019
DIVERSION
RATE
91%



PERCENT OF
FOOTBALL
GAMES
ACHIEVING
ZERO WASTE
DURING THE
SEASON

RECYCLING AND COMPOSTING DIVERTED



LA Coliseum Zero Waste Program: 2019 Season Snapshot

GALEN CENTER



2020 GALEN GREEN GAME
USC VS ARIZONA STATE
FEBRUARY 29, 2020

4,000
ATTENDANCE

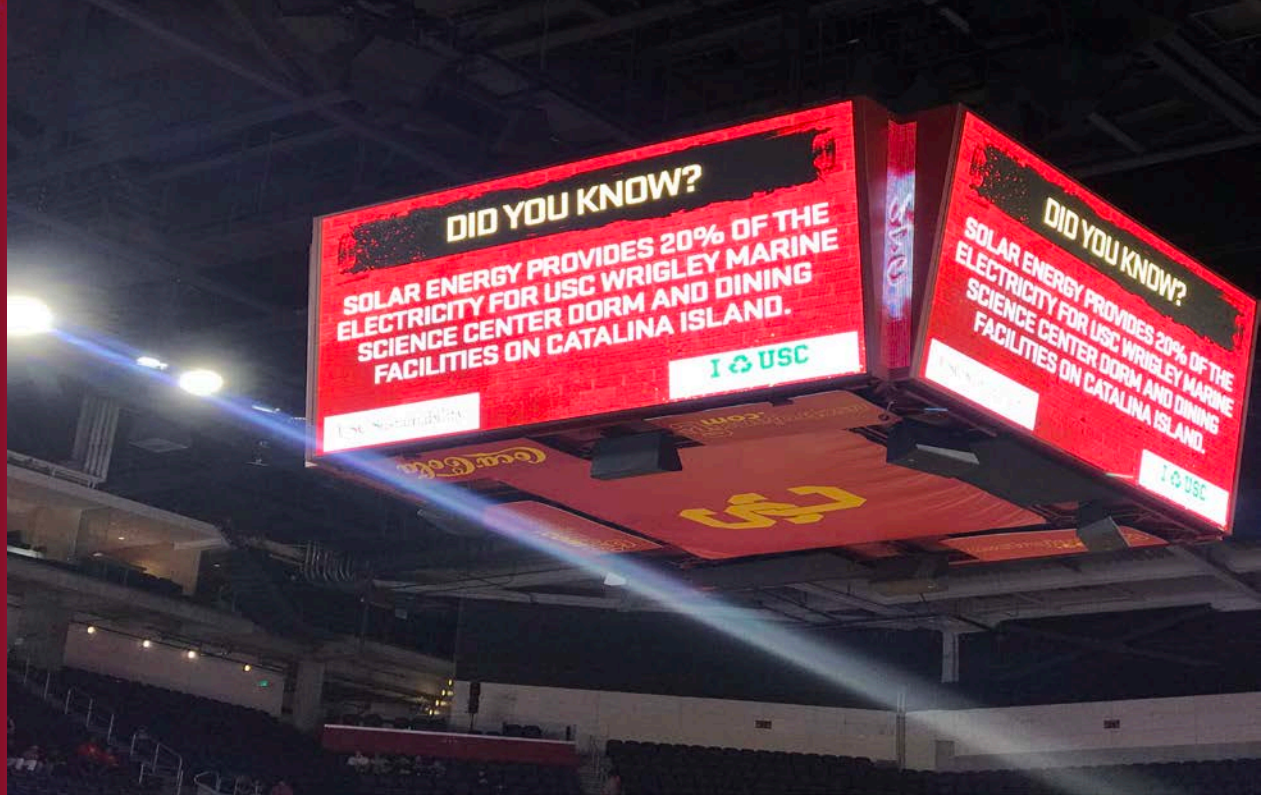
91.6%
DIVERSION
RATE

1,650 LBS
WASTE
DIVERTED

1,800 LBS
WASTE
GENERATED

.876
MTCO₂E
GHG
REDUCTION

Galen Center
Goes Green
#LiveGreenFightOn



Galen Center Pilot Zero Waste Basketball Game

2020 Green Game Highlights

USC SUSTAINABILITY

Trojan Trash Talkers Program

7 - 15 Tons of Campus Tailgate
Trash To Landfill

Greenhouse Gas Emissions
Soil & Water Contamination
Missed Educational Opportunity

Trojan Trash Talkers
Engage tailgaters on proper
composting and recycling

8,000+ Pounds of Waste Diverted





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**Undergraduate
Student Government**
University of Southern California

Sustainability Affairs



**Committee on Campus
Operations and Sustainability**



Isabella Caltabiano
Sustainability Director
Senior/Master's Student
Westchester, NY



Laura Pearson
Assistant Director
Junior
Oakhurst, CA

In Partnership With:

Undergraduate Student Body

Graduate Student Government

**USC Housing
Auxiliary Services**

**Interfraternity Council
Panhellenic Council**

Residential Housing Association

Introduced Recycling To:



Kappa Sigma
Phi Delta Theta
Phi Kappa Tau
Phi Sigma
Kappa
Sigma Chi
Sigma Nu

Fossil Fuel Divestment Campaign:



Author(s):

Hailey Robertson, *USG Senator*
Ben Rosenthal, *USG Senator*

Sponsor(s):

SEN. Hailey Robertson
SEN. Ben Rosenthal
SEN. Rose Ritch
SEN. Emily Johnson
SEN. Emily Donahue
SEN. Haley Garland
SEN. Omar Garcia

Date:

February 11, 2020

Bill No.:

SB139-14

Supporter(s):

USC Environmental Student Assembly
Secular Student Fellowship
Student Coalition Against Labor Exploitation
Peaks and Professors

Isabella Caltabiano, *USG Director of Sustainability*
Impact Investing Group

RESOLUTION CALLING ON THE UNIVERSITY OF SOUTHERN CALIFORNIA TO COMMIT
TO CLIMATE CONSCIOUS INVESTMENTS

BE IT ENACTED BY THE 139th UNDERGRADUATE STUDENT GOVERNMENT SENATE OF THE
UNIVERSITY OF SOUTHERN CALIFORNIA,

ENVIRONMENTAL
CORE



Undergraduate
Student Government
University of Southern California



GRADUATE
STUDENT
GOVERNMENT
University of Southern California



**Tianna
Shaw-Wakeman,**
*BA Psych, MS Social
Entrepreneurship*



Nathaniel Hyman,
*BS Public Policy
and Law*



Isabella Caltabiano,
*BA International
Relations, MA
Environmental Studies*



Brooke Bell,
*PhD Preventive
Medicine*

Composting in USC Housing:



Zero Waste Carnival:



**Undergraduate
Student Government**
University of Southern California





Niki Lalwani
Chair of Campus Operations
and Sustainability

The logo for Wrigley Institute features the letters 'W' and 'I' in a wireframe, geometric style. The 'W' is composed of several interconnected triangles, and the 'I' is a simple vertical wireframe rectangle. The text 'Wrigley' and 'Institute' are in a clean, black, sans-serif font, positioned to the right of the wireframe letters.

Wrigley
Institute

© ALL NECKLACES

YOURWEBSITE.COM

AMBASSADORS

Wrigley Institute Updates

- Wrigley Prize Winners
 - Plastic Evolution
 - Infinity Boxx
 - SUP CUP
- Plastics Recycling





Wrigley Ambassadors Updates

- Sustainability Demand Survey
- LUMINESCE Sustainability Portal
 - Reach out if interested in helping!
- Clothing Swap Cancelled, currently rescheduling
 - Partnership with fordays

USC SUSTAINABILITY 2028 PLANNING PROCESS

Sustainability Steering Committee + Office of Sustainability

Collaboration

Facilities Management

Transportation

Procurement

Auxiliary Services

Academic Senate

Staff Assembly

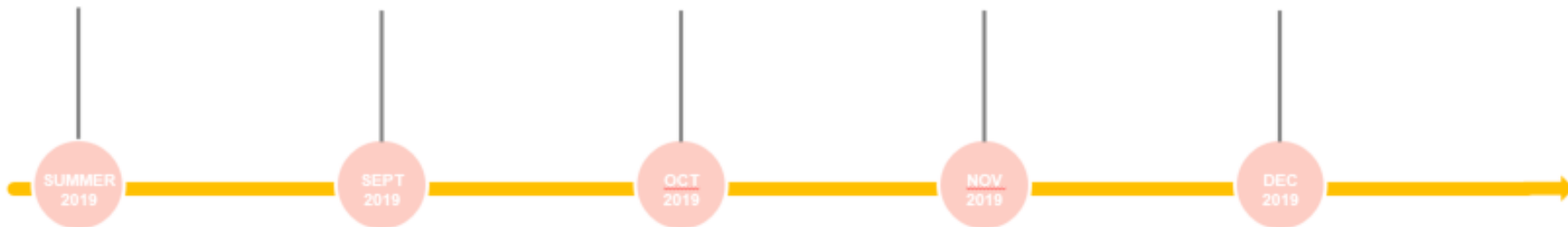
Student Groups

Student Affairs

SUSTAINABILITY 2028 PLAN PROPOSAL

Planning Timeline: Fall 2019

- Launched 2028 Intake Survey
- Incorporated Academic Senate Input from "2030 Strategy" doc.
- Engaged ARUP
- *Held 1st Sustainability Steering Committee (SSC) 2028 Planning Meetings*
- Held Two SSC 2028 Energy & Water Planning Meetings
- Established Goal Proposal for Carbon Neutrality
- Established Goal Proposals for Water Conservation Projects
- Held Two SSC 2028 Transportation Planning Meetings
- Established Goal Proposals for Electric Fleets & TDM
- Held Two SSC 2028 Waste & Procurement Planning Meetings
- Established Goal Proposal for Zero Waste
- Established Goal Proposals for Ban on Single-Use Plastics
- Held 1st HSC 2028 Planning Meeting
- Held SSC Meeting for Procurement and 2028 Plan Proposal Outline
- Submitted 2028 Plan Proposal Outline To Admin. for Approval
- Engaged Consulting Resources for Detailed & Formal Project Costing Estimates



SUSTAINABILITY 2028 PLAN PROPOSAL

Planning Timeline: 2020





QUESTIONS?

Happy Earth Day!

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