



University of Southern California 2020 RecycleMania Case Study

1. Contact info (name, department, school, email, phone)

Joshua Sierra

Zero Waste Program Specialist, USC + LA Memorial Coliseum

USC Office of Sustainability

University of Southern California

3434 S. Grand Avenue, CAL 130 04

Los Angeles, CA 90089-2811

Email: jlsierra@usc.edu Website: GREEN.USC.edu

2. Focus of Case study

This year, USC rolled out a pilot Zero Waste Green Game for a NCAA Men's Basketball Game at its Galen Center venue as an expansion of the season-long Zero Waste (ZW) Initiative and Green Game held every year for our NCAA Men's Football & NFL Rams venue, the LA Coliseum, since 2015. This combined effort amounted to an overarching ZW sports campaign that took place across two separate sporting venues, and established partnerships with numerous University entities including: LA Coliseum and Galen Center Venue Operations teams, Athletics Department, the Office of Sustainability, University Communications, Waste Hauler, Facilities Management, Auxiliary Services, Legends and Aramark Concessionaires, and third party program service providers and sponsors. Overall, our efforts resulted in the achievement of Zero Waste for the pilot SC Trojans Basketball game, and seasonal Zero Waste for our SC Trojans/NFL Rams Football season.

3. Detailed description of campaign component:

For the expansion of our Zero Waste efforts from football to Men's Basketball we utilized the lessons and techniques we had developed during our Zero Waste Football initiative at the LA Memorial Coliseum. In terms of the scope of our campaign, we made sure to engage all essential parties involved in the diversion efforts, as well as all game attendees. Overall, we pushed these two Zero Waste efforts as a unified and visible shift in University sustainability and a commitment to achieve Zero Waste where possible on campus in the near future. Below are the specifics of the campaign, with some initiatives being specific to each sporting event:

- Prior to the game itself, the University student body, faculty, and staff were engaged through the use of social media call-outs by the University President and Athletics department.
- A video of a student athlete promoting the game was distributed by various University entities on several USC Social platforms and shown in Venue.
- University Communications ran multiple news stories highlighting the Green Game efforts, as well as a post-game follow-up piece.
- At the game itself, attendees were greeted by a sustainability engagement team that discussed best waste sorting practices through games and giveaways.
- The local community was engaged through the distribution of complimentary tickets to attend the game, provided to local grade school students.
- Venue, janitorial staff, concessionaire, and university sustainability office worked together to establish a baseline for waste generation weights to compare with results of newly-implemented diversion efforts; conducted game day inventory and either pulled non-divertible products from circulation, or replaced them with reusable or compostable alternatives (ex. Popcorn bags from landfill item replaced with paper bag that can be composted, wax lined beverage cup that cannot be recycled removed from circulation and only #5 souvenir cups and #7 compostable cups were made available to game attendees); developed signage for front of house, as well as training materials and FAQs for janitorial staff to assist in engagement efforts with attendees.
- At the Galen Center, a team of 20 workers were brought in to serve as eco-ambassadors and provide waste sorting tips and University sustainability facts to game attendees.
- At the Coliseum, leftover food was donated to a local food bank and, on gameday, used cooking grease was picked up by a 3rd party vendor for reuse and transformation into biofuel.

With football also having a tailgate component, the Office of Sustainability engaged 3 enclosed ticketed on-campus tailgate events, with a total attendance of about 4500 guests. By working with the event organizers, janitorial staff, caterers, student workers, and event attendees, we were able to ensure about 2,000 lbs of event waste was diverted through material reduction, reuse, increased sorting and awareness on back and front of house operations, as well as through the implementation of composting.

By hiring a staff of 36 student eco-ambassadors and having them provide event waste sorting guidance, raise awareness and answer questions of event attendees, implement best bin placement strategies to facilitate attendee sorting, create and display waste diversion signage (Zero Waste Sort Station, Portion Reduction signage), and provide vocal announcements during tailgates, we were able to create a clean, properly separated waste stream, with an estimated 5% or under contamination rate, a 93% diversion rate and the achievement of Zero Waste Status for all three events engaged.

In addition to on-campus Zero Waste tailgates, Auxiliary Services in partnership with Athletics held a tailgate with waste sorting games and eco-prizes, student workers engaging event attendees on proper sorting practices, and raising awareness regarding the Coliseum's Zero Waste Program, and proper waste handling in general. Lastly, Traveler the Horse (USC's Mascot) took pictures with fans, and promoted the Green Game by wearing a "I RECYCLE USC" shirt – our repeating thematic tagline – through all the day's events. AUX's sustainability expert and an individual from the Athletics department

were also present to answer questions and hand out waste bin signage and recycling liners to enable tailgaters to convert their waste receptacles into recycling bins.

Planning steps & timeline to implement:

Below are the steps and timeline that was necessary across two different time periods, sports, and venues.

- Beginning 4 months prior to launch: Commence biweekly Zero Waste Program meetings with decisionmakers and stakeholders to determine season specifics and possible program expansions for football and the Green Game specifically. For basketball, establish a Zero Waste stakeholder group to determine pilot specifics.
 - a. Establish goals/targets
 - b. Assign roles and determine where training, new signage, and waste infrastructure would be needed
 - c. Identify new program expansions, grant and submission opportunities
 - d. Strategize marketing and education/awareness campaign for Zero Waste pilot game/zero waste season
- 1 month prior to launch: Establish hauling schedule and arrange waste audit with local waste hauler; determine food donation collection schedule; used cooking grease collection; janitorial team and concessionaire training development; provide concessionaire and vendors with materials that will be allowed in venue and proper venue disposal instructions
- 3 weeks prior to launch: work with University Communications, Athletics and venue marketing entities, University student newspaper and facilities/auxiliary units to market roll out/reconvening of zero waste efforts across both venues
 - a. Social media push of upcoming game through Communications, Athletics, Venue social media
 - b. University News story on upcoming games released prior to the game, along with a scheduled post-game follow-up
- 2 weeks prior: scope venue for bin placement and additional signage needs
- Week of game: set up additional waste stream infrastructure (receptacles and signage); material compliance check with vendors and concessionaires; distribution of additional waste resources (bin liners, waste bins)
 - a. For Galen Center's basketball game: setup and distribution of compost and recycling bins, bin signage, non-divertible waste materials pulled from concessions wherever possible
 - b. For Coliseum's football game: audit concessions and 30+ vendors for compostable or recyclable material usage, distribute Green Game notice to vendors, distribute recycling and compostable bags

- Day of game: Janitorial and engagement staff instruction/training; activate engagement activities; ensure waste sorting processes carried out
 - a. For basketball: train janitorial staff on new materials being utilized by concessions and provide instruction on how to engage attendees on waste sorting; set up engagement table at venue entrance for education and awareness component; in-game announcements; post-game waste collection
 - b. For football: provide campus engagement staff with instructions on how to engage tailgaters and raise awareness of Green Game; day-of audit of vendors providing any additional resources and addressing any last minute material compliance issues; distribution of Zero Waste Vendor Certification for vendors who have complied with program guidelines; pre-game, in-game, and post-game waste sort at waste enclosure hand sorting waste into recyclables and compostable, sorting out landfill and any hazardous materials
- Week of Post-game: waste hauler pick-up and audit of gameday waste to provide diversion rate and metrics on weight of specific waste streams; communicate results with stakeholders
- Month of Post-game: work with University Communications to release game wrap article, submit Green Game results and Zero Waste efforts to Recyclemania Gameday Recycling Challenge, and PAC 12 Zero Waste Arena Challenge for football and basketball

4. Resources and stakeholders involved

Football:

1. Campus Sustainability Office- Oversight of all campus sustainability efforts (signage, zero waste tailgates, 40 student waste ambassadors) and programming with emphasis on increasing campus waste diversion efforts and awareness.
2. Athletics and Facility Operations- Oversee Los Angeles Memorial Coliseum stadium operations, including implementation, coordination, and execution of Zero Waste program.
3. ABM Custodial Service- Oversight of all custodial operations for the Los Angeles Memorial Coliseum, including pre-event cleaning and stadium set up, in-game waste hauling and sorting, and post-game clean up and waste sorting. Assemble and direct sort team of 10-12 employees responsible for sorting all of the waste generated within the stadium's fence line on game day.
4. Republic Services Waste Hauler- Stadium waste hauler. Lend logistical and operational support in making sure the waste management and hauling needs of the stadium are met through the scheduling, weighing, and auditing of compactors as needed. Directs dispatch and Athens Services Sun Valley MRF personnel on dates, times, and requested needs for accurate Zero Waste reporting. Communicates and helps to analyze results of Zero Waste game day efforts which are used for reporting purposes and future planning.
5. Fox Sports Marketing- Responsible for generating salable assets surrounding the Los Angeles Memorial Coliseum's Zero Waste program and other sustainability efforts, while fostering and

growing existing partnerships with various corporate sponsors such as BASF, Waxie Sanitary Supply, and EcoSafe.

6. Auxiliary Services Sustainability- Create outward facing marketing content. Provide support such as professional photographer to help capture the positive impact and fan engagement related to the Green Game. Set up and ran engagement tabling effort for fans outside venue.
7. Legends Venue Concessionaire- Responsible for providing high quality food and customer service to fans in attendance at all Los Angeles Memorial Coliseum events. Manage all permanent concession stands within the stadium on behalf of Legends Hospitality and arrange/oversee all subcontracted food providers brought in on football game day to increase variety and points of sale in majority of stadium. Responsible for catering and premium hospitality.
8. EcoSafe- Sponsoring partner, Coliseum Zero Waste committee member, product supplier for compostable liners throughout the stadium's compost waste receptacles.
9. BASF- Sponsoring partner, Coliseum Zero Waste committee member providing advisement and guidance on materials and best waste procedures.
10. Waxie Sanitary Supplies- Sponsoring partner, Coliseum Zero Waste committee member, stadium's janitorial green cleaning product supplier, lent operational and logistical support for game day execution.
11. Recycling Pays- Partnered with Coliseum Operations to lend logistical support in the scheduling, weighing, and auditing of game day waste. Hauls recyclables and provides rebates for material content.

Basketball:

1. Campus Sustainability Office- Oversight of waste reduction and diversion consulting for concessionaire materials, venue waste infrastructure, hauling, and signage and engagement.
 2. Athletics and Facilities Operations- Overall venue management, budget and operational execution of Green Game.
 3. Facilities Management Services- Management of waste hauling scheduling, auditing, and metrics collection.
 4. Athletics Marketing- Pre/post game content creation, content development, in-venue game presentation awareness campaign.
 5. Aramark Concessionaire and Custodial Services- Oversee waste infrastructure additions, trade out and elimination of non-divertible waste, communication of Green Game measures through custodial and concessions staff, dedicate and train staff to engage fans on Zero Waste measures.
 6. Auxiliary Services Sustainability- Develop and oversee content and engagement efforts of gameday in-venue activations, providing consulting support and marketing assistance leading up to and following the game.
 7. Fox Sports- Oversight of sponsorships and partnership activations.
5. Describe the Results of this campaign component
- a. General results: *(ex: attracted attention of campus president, campus paper did a news story on the event, etc.)*

Our football and basketball Green Game Zero Waste Initiative resulted in recorded content from our University President promoting our sustainability-focused efforts, in addition to a call-out of the initiative in her State of the University address. Our efforts were also documented in the

Campus newspaper, as well as in University News stories, highlighting our work leading up to the events and the results of post-game efforts (or entire season results in the case of our Zero Waste football initiatives). We also received the rank of “Most Improved” in the PAC-12’s Zero Waste Arena Challenge for Men’s Basketball.

b. Specific measurable impact figures, if applicable:

Men’s Basketball Zero Waste Green Game Pilot Results:

- 91.6% diversion rate, achieving Zero Waste status
- 1,650 LBS of waste diverted out of 1800 LBS of waste generated
- .876 M2CO2E avoided through diverted waste
- 64% reduction in total waste generated
- Approximately 87% increase in waste diversion from standard game

Men’s Football Zero Waste Seasonal Initiative (both NFL Rams and SC Trojans) Results:

- 91.2% diversion rate
- 241 tons of waste diverted over 2019 season
- Total of over 1000 tons of waste diverted from landfill since program inception in 2015
- 11 of 14 games achieved Zero Waste Status
- 1.755 tons of food donated
- 1.55 tons of used cooking grease collected to be repurposed and turned into biofuel

6. What would you do differently in the future?

In the future, we would like to look at the possibility of conducting back-to-back Green Games that could involve both men and women’s basketball games. With all the infrastructure improvements, marketing, and training involved in carrying out the pilot Green Game, it would be ideal to expand efforts to involve both sports in a more holistic green basketball Zero Waste gameday/weekend.

7. What advice would you give to another college that wanted to do a similar effort?

Make sure to develop goals and identify the stakeholders that you will need to accomplish said goals. We were lucky to have such innovative, collaborative, and dedicated program partners, but

considerations such as hauler limitations, composting and recycling services available based on locations, and potential concessionaire or venue limitations are key to identify and incorporate into the planning process.

8. Photos and Graphics

Football Event Images and Graphics: (Images provided by USC Athletics, LA Coliseum, and USC Office of Sustainability, USC Auxiliary Services)



Campus eco-ambassadors (Trojan Trash Talkers) during Green Game tailgating



University President with student eco-ambassadors during Green Game ZW tailgate



AUX Sustainability expert, Athletics Associate Director, and USC Mascot Traveler engaging fans outside venue



USC Trojans @USC_Athletics · Oct 16

This year, USC and the @laoliseum were awarded the LA County Board of Supervisor's Green Leadership Award.

Help us continue our efforts at the Zero Waste Game this weekend!

#USCZeroWaste | #Pac12TeamGreen



2019 Zero Waste Game Facts & Tips

usctrojans.com

USC Athletics social media post pre-game, highlighting sustainability efforts at football venue, and previous season LA County Board of Supervisors award



USC Trojans @USC_Athletics · Oct 19

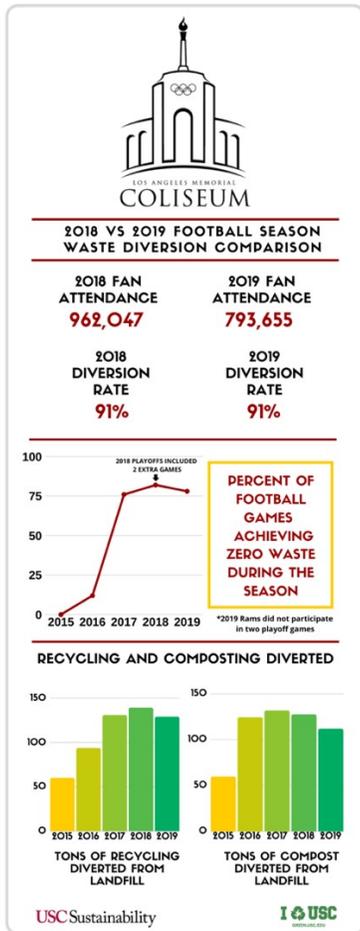
Reuse. Recycle. Bulk Up. Go Local.

Click to see more green tailgating tips ahead of ♻️

#USCZeroWaste | #Pac12TeamGreen



USC Athletics gameday social media post promoting the game and providing green tailgating tips to tailgaters



Shared graphic highlighting 2018 to 2019 program progress

ZERO WASTE WEEKLY TIMELINE

Here is an overview of the planning that goes into making a zero waste game day successful!

MONDAY/TUESDAY

EMAIL

Reach out to subcontracted vendor partners to follow up on program compliance, communicate results from previous events and remind of product order deadlines. Following a game, we'll also send all game day waste to Athens material recovery facility to be weighed and audited for zero waste reporting purposes

WEDNESDAY

MEETING

Coliseum Zero Waste Committee meeting to review program goals, review previous event results, summarize event day challenges/successes make necessary adjustments and game plan for upcoming events

THURSDAY

READ ALL ABOUT IT!

Generate zero waste newsletter and liner packets distributed to concession subcontractors. Each vendor gets a packet of 4 compostable and 4 recyclable liners to use for their waste on game day, and we provide a newsletter that communicates program updates and vendor guidelines

FRIDAY

INSPECTED

Walk each permanent concession stand and temporary vendor location to audit for product compliance; exchange non-compliant items with compliant if possible. Deliver liners and zero waste newsletter to each location. Set up engagement tent, waste compound for sorting, and audit compost/recycling receptacles for accurate signage and placement

SATURDAY/SUNDAY

SORT IT OUT

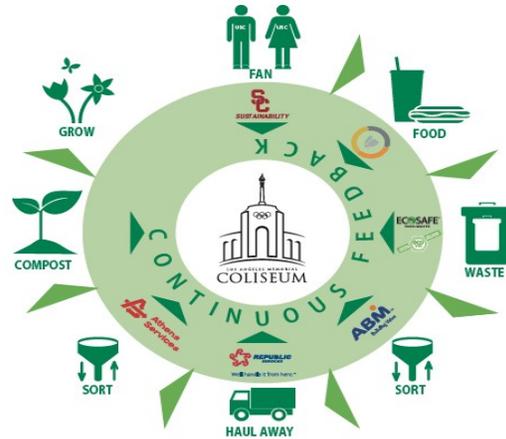
Game Day! Conduct concession stand and vendor audits for program compliance, activate zero waste engagement tent, sort waste generated inside stadium into appropriate container...achieve zero waste!

FOLLOW OUR FACEBOOK PAGE @COLISEUM2017 FOR CONTINUED UPDATES AND HELPFUL RESOURCES

Shared graphic summarizing venue Zero Waste weekly timeline of efforts



Graphic shared with stakeholder of cooking grease collection/reuse process



Graphic shared in various mediums of Zero Waste program process

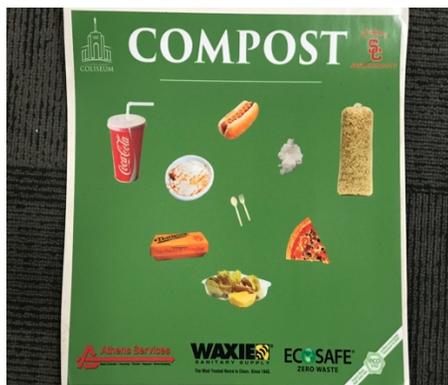
MINIMIZING WASTE AT USC CAMPUS TAILGATES

Reducing waste and diverting trash from land fill is an integral part of hosting sustainable events at USC. The following tips can help with planning sustainable tailgates.

 PLAN with caterers to provide proper quantities of food to avoid waste, and instruct staff to handle food waste properly (donate or compost)	 DONATE food waste by partnering with local non-profits, such as St. Francis Center Food Recovery Program (www.sfcls.org)	 USE only reusable service ware (glass or metal plates, cups, silverware, etc.) whenever possible. Otherwise, use certified compostables (#7 plastic, uncoated paper fiber, ASTM D-6400), or recyclables (#1-#6 plastics)	 EDUCATE guests before and during events on proper methods of recycling and composting their trash
 PROVIDE compost and recycle event boxes throughout the event, as well as at "back of house" locations (bar and kitchens) by contacting FM S: Barbara Sussoev bsussoev@usc.edu	 CONTROL non-recyclable or compostable materials from entering your event to avoid waste contamination and minimize landfill	 ARRANGE with FM S Events to ensure compost and recycling is appropriately handled and hauled after the event by requesting 1-2yd compost commercial bin and 1-3yd commercial recycling bin through FM S: Barbara Sussoev bsussoev@usc.edu	

USC Sustainability **I ♻️ USC** WWW.GREEN.USC.EDU HELP TO PLANT THE SEEDS FOR USC'S SUSTAINABLE FUTURE BY TAKING THE SHORT 2025 SUSTAINABILITY PLAN SURVEY. SCAN THE QR CODE OR VISIT WWW.GREEN.USC.EDU/2025-PLANNING/

Graphic on how to reduce waste at campus tailgates, published in Campus Newspaper and various social media channels



LA Coliseum compost waste bin signage



Coliseum Premium suites waste bin signage



Vendor Zero Waste Certifications handed out during Green Game

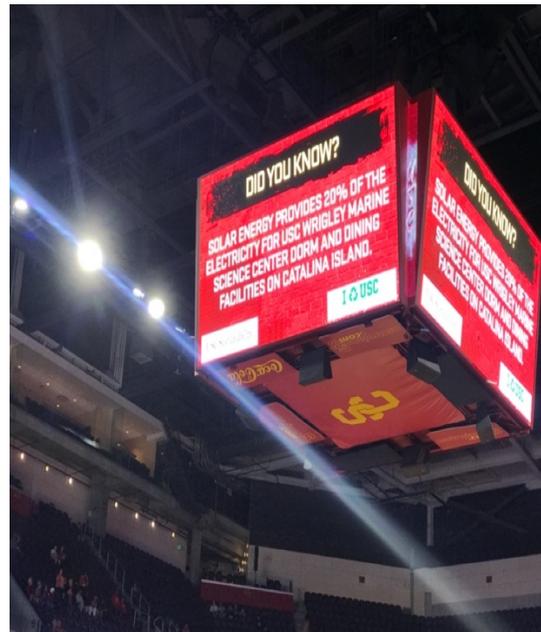


Coliseum Operations and Sustainability team handing out certifications

Basketball Event Images and Graphics: (Images provided by USC Athletics, and USC Office of Sustainability)



Outside venue Green Game promotion pre, in and post gameday



In-game sustainability facts/tips played on jumbotron throughout game



University President social media post call out of Green Game on gameday



Summary graphic of Green Game Zero Waste efforts, shared across multiple platforms



Green Game compost and recycling bins and receptacle signage



Auxiliary Sustainability in-venue fan engagement tabling efforts



Training material/session for concessions and janitorial staff on new compostable materials in circulation

Newspaper Article and Video Content Links:

[USC News- USC Green Team Leads Coliseum to Zero-Waste Win](#)

[University President Video Content Promoting Game](#)

[SC Trojan Football Player Max Williams Video Content Promoting Green Game](#)

[PAC-12 News Release Including Announcement of USC Achieving “Most Improved”](#)

[USC News- Galen Center Wins Big in PAC-12 Sustainability Competition](#)

[USC News- Through Solar Power and Zero Waste, Galen Center Shoots for Sustainability](#)

[USC Pressroom- *The First USC Basketball "Green Game" Tips Off This Weekend*](#)