

Zero Waste Pauley Action Research Team Final Report

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Executive Summary

Over the past two quarters Action Research Team: Zero Waste Pauley has been working diligently with stakeholders Rich Mylin, head of recreation at UCLA, and Nurit Katz, Chief Sustainability Officer, to plan a smooth and effective transition for Pauley Pavilion into a zero waste facility. With the ultimate goal of zero diversion at all events by the end of the year, our team spent the majority of winter quarter researching if and how this would be possible. Much of this research focused on similar initiatives at other schools around the country – as identifying and avoiding their challenges would be key in our success.

Once we had a good background of what was in store for our team, the real work began. We shadowed a UCLA basketball game taking into consideration how the waste was disposed of during the game. This was then supplemented by a waste audit where our team sorted through the waste from each part of the stadium, examining what it consisted of and how much of it there actually was.

Transitioning to Spring Quarter our team seriously began planning our first zero-waste event. Originally hoping to have one early in the quarter, logistical issues forced us to push back the timetable, and we decided on Spring Sing. Our team met with ASUCLA about the concessions that were to be sold, Athens Services about potential compost and recycling pickup, and various club at UCLA for volunteers. The final step was revamping the signage for the recycle, compost, and trash bins.

On May 17th our team and around 30 additional volunteers aligned ourselves around Pauley Pavilion for the arena's very first zero-waste event. While some miscommunications dampened some of the results, the overall experience was a positive one. We understand now that truly making Pauley Pavilion zero-waste will be a slightly longer process than originally

anticipated, but our results indicate that with continued support and perseverance it is a very plausible goal.

Overview Objectives, Project Goals

Whether Scott Stadium at the University of Virginia, the Green Stampede Initiative at the University of Colorado-Boulder, or Aggie Stadium at UC Davis, Colleges and Universities all throughout the country have begun taking steps to turn their sports arenas into zero-waste facilities. With UCLA's continued commitment to environmental sustainability, and with a newly renovated LEED certified basketball arena, it was only natural that UCLA follow the footsteps of these other great Universities. In addition, with UCLA's goal to reach 100% diversion in all of its facilities by 2020, by starting with one of the schools most recognizable buildings, Action Research Team: Zero Waste Pauley really had a chance to provide the University with relevant information on how to get the ball rolling on the zero-waste initiative.

At the onset of the project our goal was simple: have a zero-waste facility by the end of the year. To begin we would make all materials sold in Pauley Pavilion recycle/compostable by working with ASUCLA concessions. The next step was to create a better waste disposal system through accessibility, education and transparency. We would revamp the supply of recycle and compost bins in the stadium with better location and more effective signage. We wanted to design outreach materials and a sustainability commercial for a half-time presentation. Finally, it was our goal to host a zero waste event. This would be achieved by educating janitorial staff on proper recycling/composting procedure, and recruiting student volunteers to stand next to recycle/compost bins to help fans properly dispose of waste.

Significance/ Background

The project of making Pauley Pavilion a zero waste facility is important for many reasons. The background of this project is focused on the UC-system wide goal of reaching zero waste by 2020. This policy was enacted by the Capital Resource Management Office as part of the UC Sustainable Practices Policy. Reaching zero waste entirely is a very daunting task. Our project to make Pauley Pavilion zero waste can serve as a model for the rest of our campus. Also, many other UC schools have taken the initiative to make their sporting facilities zero waste. It is about time that UCLA did the same and our project has made that possible.

Our project is significant for many other reasons as well. Overall it shows that our campus is dedicated to sustainability and will raise awareness about sustainability. Some students do not know what zero waste means. A lot of students utilize Pauley Pavilion whether it be for sporting events, banquets, or big event like Spring Sing. It will help students to become more familiar with the zero waste idea and also learn how to sort their waste properly. It should be a conscience effort on the part of all students to know what parts of their waste are compostable, recyclable, or need to go to the landfill. As students get used to doing this in Pauley they will hopefully become accustomed to doing it all over campus.

As part of our project our team created brand new signage for the compost, recycle, and landfill bins. Students often complain that the bins on campus are confusing and don't know what goes in each bin. This is a major problem and needs to be improved upon. Our signage was very clear and we did a lot of research to find what type of signage is most effective. We had a combination of text and pictures that made it easy to determine what is compostable, recyclable, and trash. If these signs can be altered and used around campus in the future it would have a major impact on our campus. Students would be able to easily sort waste and this would allow making UCLA an entirely zero waste campus more feasible.

Initial Conditions

Zero-Waste Pauley is a brand new ART team, so we pretty much started from scratch with our project. We began with a brand new facility that is a huge part of the events and culture of the UCLA campus, Pauley Pavilion. In order to make it Zero-Waste, we had to take into consideration the events that happen there, what kind of waste is created at these events, and how we can divert this waste from the landfill by making changes within the facility and with outside services. We decided we needed to research the concessions sold at Pauley, the waste service pickup, and how the waste was sorted after events. We also decided that we would do a waste audit at an event to assess the initial conditions, and then host a zero waste event after we had implemented our changes.

Research Methodology

Over the course of the last two quarters, the Zero-Waste Pauley team conducted research to determine the most effective way to achieve zero waste in Pauley Pavilion. In spring quarter, we individually and collectively compiled background research on zero-waste efforts made by other universities and effective signage for recycling and compost bins. Additionally, we conducted research on the current distribution of bins in Pauley, performed an audit of a portion of the waste resulting from a men's basketball game, and examined the list of items sold in concessions in Pauley. In Spring quarter, team Zero-Waste Pauley held our very first zero-waste event in Pauley Pavilion, which involved implementing a composting program, designing effective labels, educating staff, and recruiting volunteers. The following section will provide details on each of the major tasks we performed.

Background Research

We began our research by finding other universities with zero-waste facilities and contacting them to learn from their successes and challenges. Team members were given specific universities to contact and later on we each summarized our findings in a report to our stakeholders. Megan contacted Ohio State, Charlie contacted the University of Virginia, Corey contacted the University of Colorado Boulder, and Lauren contacted UC Davis. From this research, we gained valuable insight into what steps were necessary for us to make progress towards zero waste Pauley. The University of Virginia's program has been especially essential for it has provided us with great information on how to conduct an effective waste audit.

1) Ohio State

'Ohio State's "Ohio Stadium" was the largest stadium as of 2011 to attempt zero waste. Corey Hawkey, one of the leader's of Ohio State's Zero Waste Project, had some very valuable advice on how we should approach our project. One thing that he stressed was that it is going to take time to achieve our goal, and we cannot expect immediate success. However, he said to be ambitious and strive for that goal wholeheartedly. Trying different strategies, some being successful, and some not, is what got them to their best solutions. The biggest challenge the Ohio team has had is the time removing contamination from the compost. Corey said they had more hurdles to get over, rather than challenges to face, which is encouraging. He said having committed and steady leadership is a key factor. Our team-stakeholder relationship has been consistent, and will be crucial to our process. Making compromises, and keeping stakeholders always in mind is another tip Corey gave. This also applies to talking with ASUCLA, and everyone else involved with the workings of Pauley. From what Corey said, and what Ohio State has achieved, I have confidence that we can achieve similar feats.

2) University of Virginia: Scott Stadium

Students and staff at the University of Virginia took a multi-faceted approach in trying to make their football stadium, Scott Stadium, zero-waste. They first performed a waste and trash receptacle audit of their stadium. After touring the stadium before a game, students pulled samples of trash from receptacles around the stadium. The samples were then moved to the UVA recycling facilities, the trash was sorted the next day, and the students measured the weight and volume of each kind of trash (food, paper, recyclables, trash) and the trash's source in the stadium. After shadowing a game, the students found that there were far too few recycling bins and the bins were poorly designed in that they did not allow for a range of products to fit in the bins. Also they noticed that around the entrances of the stadium, the "high-traffic areas," the trash and recycle bins would fill up too quickly. Since the recycling bins were much smaller than the trash bins, potentially recyclable items were being thrown away or thrown on the ground. The team requested more trash bins and more, larger, better designed recycling bins in and around the stadium, namely the entrance. The team made an online survey to determine people's recycling/composting materials that included a prototype of a sign to be put over recycling/composting bins. The team found that people knew what they could compost much more than they knew what to recycle. The people being surveyed found specific images of recyclable/compostable materials in addition to text on the sign to be very helpful. The team also investigated alternative sustainable materials for the concession stands. They performed a very detailed cost analysis on the alternative materials and found that the concessions could save money by switching to alternative, sustainable products; a similar report should be performed for Pauley Pavilion. Some of them included using EcoCraft Natural by Kraft brand food trays, popcorn bags, and fry cups. We must talk to ASUCLA about the possibility of switching to only recyclable/compostable materials.

The main challenges that the team at UVA faced in implementing their plan was due to bureaucracy. The departments at the University of Virginia seemed to be very decentralized. Each department, owned by UVA, did not contact one another. UVA athletics did not want to absorb the costs affiliated with being zero-waste, such as “losing” advertising space. UVA Sustainability was told they would need to pay UVA athletics to air a promotion video. All departments seemed to be on board when they project initially started but the athletic department did not seem that committed because the ideas would create no additional revenue. The concessions were resistant to change because they deemed it a risk, even though the team's report outlined the potential savings by switching to sustainable materials.’

3) University of Colorado, Boulder: Green Stampede Initiative

“Ralphie’s Green Stampede” initiative to make CU Boulder’s football stadium zero waste was the first such collegiate or professional sustainability program of its kind in the country. A big problem at Pauley Pavilion is that the trash left on the floors of the arena is swept up and deposited straight to landfill. At Folsom Field, to solve this problem, they have ROTC volunteers help clean the stadium after each home game with knowledge of what should be recycled and composted. While a similar program might be difficult to implement at Pauley, it is an interesting solution to consider when trying to fix this problem. Another intriguing aspect of the Green Stampede initiative was how they were able to get their funding At Boulder they were able to bring in corporate sponsors to help with the costs associated with this type of program .If our project does need more funding, it would be interesting to consider bringing in corporate sponsors – as they might be open to financial backing in exchange for publicity and advertisements around the stadium.

4) UC Davis: Aggie Stadium

With an impressive 89% diversion rate, UC Davis's "Aggie Stadium" was the winner of the Diversion Rate Champion category in the 2010 EPA Game Day Challenge. All items sold from the concessions stands at Aggie Stadium can be composted or recycled and fans are not allowed to bring their own food or beverages in. A lot of their success in implementing this new program depended on volunteers who attended all games and made sure people were composting and recycling appropriately. Paper recycling bins were not included in the stadium, allowing for UC Davis to avoid dealing with contaminated paper products. Concessions staff were educated in proper compost and recycling practices as well. Compost and waste audits were performed periodically to measure their success. Some trash items that were still found include candy wrappers, hot beverage wrappers, athletic tape, and laminated entrance passes.

Labeling and Signage

During week 4 the Zero-Waste Pauley researched potential labeling designs for the recycling and compost bins. From examining the strategies implemented by zero-waste facilities, the group decided that the clearest and most effective signage utilized images of common products sold. Additionally, we determined that signs must be large enough for passerby to easily see and understand and that colors of the bins should be distinguishable (i.e. green compost bins and blue recycling bins). From our research into other universities, we also agreed that the best way to ensure that bins are being used correctly is through education. As part of our project we must educate the janitorial and concessions staff about appropriate waste disposal as well as place volunteers next to the bins at events to make sure fans use them correctly.

Waste Audit

During week five, the Zero-Waste Pauley team attended a men's basketball game where we were able to shadow staff and observe how waste was disposed of during the game. We

labeled dumpsters corresponding to where the waste was disposed of during the game, so that staff knew where to put the trash bags from these sections after the game. The next morning we did a waste audit on the labeled dumpsters that gave us more insight into what the waste was composed of, and where the waste came from in the stadium. We sorted through a trash bag from each section, weighed it, and determined what was recyclable, compostable, and trash from each bag. Our results were slightly altered because it rained, which affected the weight, and what could be recycled from the waste. However, the waste audit gave us a good idea of products and waste receptacles we could alter for the future to decrease waste efficiently. It also determined what we needed to address with ASUCLA concessions in regards to packaging of food. We were happy to find that most of the packaging used by concessions is already recyclable, and food waste was minimal. There is still a lot we could work on as far as disposal of trash, and making more products compostable and recyclable as needed to reach our zero-waste goal.

Concessions Research

During week eight, Zero-Waste Pauley met with Rich, Nurit, and ASUCLA concessions to discuss how we could improve on what is currently being sold by concessions in Pauley. We obtained an inventory of all the products being sold in Pauley from the ASUCLA concessions manager. This gives us a comprehensive list to work off of as we continue to search for alternative products, which is a crucial part of working towards making Pauley zero waste. Some items that may be problematic are the wrappers for cracker jacks, kit kats, peanuts, sour patch kids, and chip bags. We met with Athens during finals week to clarify problematic items. To our surprise, we found that most items sold in Pauley Pavilion were actually compostable. This was ideal because many items that we would normally recycle could be composted and therefore liquid and food contamination was no longer a problem.

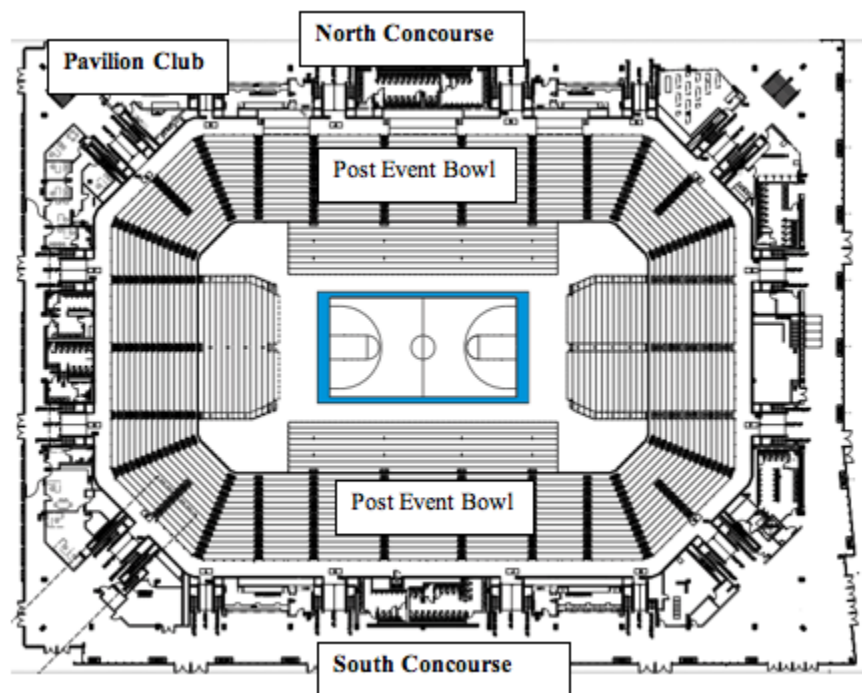
Zero Waste Spring Sing

During spring quarter, we mainly focused on planning our first zero waste event. First we met with Rich to discuss our meeting with Athens and he agreed that we must arrange for a compost pick-up after events in Pauley Pavilion. From there we began designing labels for the bins. We met with concessions staff in Pauley to photograph commonly sold and problematic items. We used labels from AT&T Park as an example, which placed clear photographs and short descriptions of items on each label. For Spring Sing, we had 19 of these labels printed to tape temporarily on the bins. In the future we hope Pauley can order permanent bins that display labels at eye-level. Before Spring Sing, we began increasing our publicity campaign via social media outlets. We created a facebook page and a facebook event to advertise our cause and recruit volunteers for Spring Sing. At Spring Sing we strategically placed compost, recycling, and waste bins as islands so that customers had equal access to all three bins. Additionally, we placed volunteers next to each island to instruct attendees in appropriate waste disposal. We provided each volunteer with a cheat sheet that identified all items as recyclable, compostable or landfill. We arranged with recreation and janitorial staff to return the following morning to sort waste from the floor of Pauley and collect data.

Data/Cost Analysis

In order to fully understand the composition of the waste stream created by events at Pauley Pavilion the Zero Waste team held a waste audit Winter Quarter. The team planned on using this collected data to better understand necessary changes in items being sold by concessions stands and serve as a baseline measure for the amount of waste diverted after implementation of the zero-waste plan.

The evening of February 7, 2013 UCLA men's basketball hosted a game in the pavilion drawing a crowd of about 7,000 fans. The waste stream produced by this even was tracked and examined by the Zero Waste Pauley team producing the following conclusions. Below, the map displays the five areas where waste was disposed of followed by the differentiating composition of waste in each area.



Waste Sort

Date: 2/8/2013, Friday morning

During the waste audit, trash from each five sections of Pauley Pavilion was sorted. Each bag of trash was weighed before sorting through its contents. We will summarize what was found in each bag.

*The scale used to weight each bag was made for much heavier objects so the weights below are not very accurate

Bag 1- The North Concourse

Weight of bag: 60 lbs.

-Most of the waste we sorted from the north concourse was recyclable. The main problems we saw were the foil from the hot dogs, ketchup bags, cookie bags, chip bags, and the paper lining of sandwiches. We also saw people were sticking their gum to trash which poses an issue for recycling as well.

Estimation of bag contents: 15% trash and 85% recycle.

Bag 2- The South Concourse

Weight of bag: 8 lbs.

-This bag had about the same waste as the North Concourse. We also found that Jamba Juice cups were a problem. Even though they are plastic and recyclable they were all heavily lined with smoothie. When consumers finish their juice, there is still a thick coating left over. This amount of food waste makes the cup not recyclable.

Estimation of bag contents: 15% trash and 85% recyclable

Bag 3- The Pavilion Club

Weight of bag: 19 lbs.

-The Pavilion Club bag had more food waste than any other bag we sorted. The main problem areas from this bag were plastic straws and non-compostable paper napkins. The food waste we found was left over sandwiches, limes or olives.

Estimation of bag contents: 50% trash, 30% recycle, and 20% compost

Bag 4- Post Event Bowl (under the seats)

Weight of bag: 89 lbs*

-In this bag we found a lot of dressing containers that had dressing in them or were lined with a coating of dressing. We also found the most amount of waste that was brought in from outside sources by consumers. This waste was in non-compostable/recyclable plastic bags.

Estimation of bag contents: 30% trash and 70% recyclable

-In this bag we also noticed that the way consumers are disposing of waste will pose an issue as well. By looking through this waste we noticed people stuff their napkins and plastic trash into a drink cup or a plastic sandwich container. Even if the cup or container is recyclable, all of the trash inside was not. This is something we need to keep in mind when we are telling our student volunteers how to help consumers sort their waste.

Bag 5- The Arena

Weight of bag: **8 lbs.**

-The waste we sorted in this bag was very similar to what we found in the post-event bowl bag.

One thing unique we did notice was paper popcorn bags, which appeared to be lined with plastic or wax making them non-recyclable. There was not much food waste as we figured consumers felt obligated to finish their food after paying high prices for it. A lot of waste was composed of CPK boxes. CPK seemed to be the most popular vendor at the game and also one of the food trucks was a CPK food truck. The CPK boxes were all recyclable, especially because most didn't have any food waste at all!

Estimation of bag contents: 30% trash and 70% recyclable

Overall, the team was glad to find most of the items sold at Pauley were recyclable and consumers ate most of the food purchased at concessions during the game. This lead the team to pursue efforts to set up a composting disposal system for the pavilion and continue working with concessions to find replacements for items categorized as landfill.

Financials

This Action Research team was granted about \$3,000 from The Green Initiative Fund to proceed with the proposed plan to turn Pauley Pavilion zero waste. Of the money awarded to our efforts

a significant portion was able to remain in the fund due to the support of Recreation. The team produced forty shirts for volunteers at Zero Waste Spring Sing at a cost of \$450. We also design signs with the help of a department graphic artist. This came at no cost to the team and printing the fifty-six signs cost \$114. Beyond these listed costs, Zero Waste Pauley was supported by Recreation. The department agreed to cover expenses for pick-up of current and future compost loads produced from events held in the pavilion and plans to cover the cost of printing permanent signs similar to those designed by the team.

Key Findings

During week 4 of winter quarter, our team researched potential labeling designs for recycling and compost bins in Pauley Pavilion. From examining the strategies implemented by zero-waste facilities at other universities, the group decided that the clearest and most effective signage utilized images of common products sold in the stadiums. Additionally, we determined that signs must be large enough for people passing by to easily understand, and that the colors of the bins should be distinguishable (i.e. green compost bins and blue recycling bins). From our research on other universities zero waste facilities, we concluded that educating both the fans and janitorial staff would help ensure the bins are being used properly.

During week five of winter quarter, the Zero-Waste Pauley team attended a men's basketball game at home versus Washington State. Our team was able to shadow concessions and UCLA Recreation staff and observe how waste was disposed of during the game. We labeled dumpsters located outside Pauley Pavilion corresponding to where the waste was disposed of during the game, so that staff knew where to put the trash bags from these sections after the game. The next morning we did a waste audit on the waste generated from the previous night's game. Our team sorted through a trash bag from each section, weighed it, and determined what was recyclable, compostable, and trash from each bag. The waste audit gave us

a good idea of products and waste receptacles we could alter in the future to reach our zero-waste goal. The waste audit also determined what our team needed to address with ASUCLA concessions in regards to packaging of food. We were happy to find that most of the packaging used by concessions is already recyclable, and food waste was minimal.

However, our team faced multiple challenges during the waste audit. Zero-Waste Pauley and UCLA Recreation planned on educating the janitorial staff before the game about sorting the trash based on where in Pauley Pavilion the trash came from. Due to miscommunication, the janitorial staff during the game was confused. Luckily, the team found the head custodian Michael during the game and explained the situation to him. The next morning, it was extremely cold and raining outside. UCLA Recreation had an industrial scale for weighing the entire dumpster, but the scale could not read individual bags of trash. The industrial scale and the rain threw off our weight measurements. Miscommunication and bad weather caused some problems during the waste audit but we were able to record accurate qualitative data about the waste generated in Pauley Pavilion. Our team learned that large scale events, such as a waste audit, require much more pre-planning from a logistics standpoint.

Going off what our team learned from the waste audit, we met with Rich, Nurit, and ASUCLA concessions to discuss how we could make the items sold by concessions inside the arena more sustainable. We obtained an inventory list of all the products being sold in Pauley Pavilion from the ASUCLA concessions manager, giving us a comprehensive list to work off of as we continue to search for alternative products, a crucial step in making Pauley Pavilion a zero-waste. Early spring quarter, we met with Athens Services to discuss which items sold by ASUCLA inside Pauley Pavilion could be recycled, composted, or sent to the landfill. Our team was excited to find out that Athens could compost most of the items we previously thought could

only be sent to the landfill, including the wax paper food liners, foil wrappers used for hot dogs, and California Pizza Kitchen cardboard boxes. With Athens' help, our team flagged certain items sold in Pauley Pavilion that could only be sent to the landfill. These items included chip, Cracker Jacks, and peanut bags, plastic candy and ice cream wrappers, and condiment packets. While some of these items are difficult to not sell during events in Pauley Pavilion, future teams should work with ASUCLA to find alternative items with compostable or recyclable packaging to sell in Pauley Pavilion.

Our team planned to have the first zero-waste event in Pauley Pavilion at the beginning of spring quarter at smaller-scale sporting event, like volleyball. We assumed fewer fans would be in attendance compared to a men's basketball game and our team would encounter less problems during our first event. Similar to our first waste audit, our team underestimated how much planning a zero-waste event, even on a smaller scale, would require. From a logistics standpoint, our team felt that the UCLA Recreation staff, janitorial staff, and Athens Services were not on the same page. Instead of a small sporting event, we decided to make Spring Sing 2013 our first zero-waste event. One of the main challenges we faced dealt with our plan to compost a majority of the waste generated during Spring Sing. Athens Services was under contract to pick up only recycling and landfill waste, which concerned ASUCLA about the extra costs associated with handling the compost. (I don't know how this was resolved. Please help me on this one Sean).

Our team faced similar communication challenges leading up to and during our first zero-waste event. Our team recruited student volunteers before the event to stand next to each island (3 waste bins comprised of compost, recycle, and landfill) and help attendees sort their trash. While each volunteer received a "Zero Waste Pauley" t-shirt, our team did not effectively communicate

the volunteers' roles to the volunteers. Many volunteers abandoned their stations to go watch the event or find their friends instead of staying at their stations for the entire event. Our team also had communication problems with UCLA Recreation staff. Right before the event, there were no dumpsters outside of Pauley Pavilion to place the waste, meaning that the janitorial staff had nowhere to place the waste generated during Spring Sing. Our team labeled the dumpsters with "Compost," "Recycling," and "Landfill" so the janitorial staff could sort the waste as needed. However, the janitorial staff was confused and missorted all the waste generated during the game. Once our team sorted all the waste in the dumpsters the next morning, there was miscommunication between Athens and UCLA Recreation, and the dumpsters were not picked up at the scheduled time. These dumpsters were then filled with miscellaneous trash that was not sorted by compost, recycling, or landfill throughout the day.

Our team can take away a lot from the last 20 weeks. The biggest challenge we faced was time. The stakeholders have been extremely helpful and supportive, but they have full-time jobs. Finding a time to meet that works for both the stakeholders and our team was extremely challenging. Just to put that into perspective, the waste audit in winter quarter did not occur until halfway through the quarter and the meeting with ASUCLA about the concession items sold did not occur until a month later. Any event, no matter how small it seems, requires careful planning and persistence in communicating with the stakeholders. Our team knows that making Pauley Pavilion a zero-waste site will take time but we are proud of the progress made the last two quarters.

Recommendations

The Zero Waste team would encourage the creation of a follow up team to continue the work started at Pauley Pavilion. Though the groundwork and background research has been set

to create a zero waste stadium, the action has not been fully taken. There is still more work to be done to fully ensure that all events held in Pauley are zero waste.

Three continuing steps will be key to implement in the future of zero waste at this location. First, the ordering of concessions must be audited. Some of the items ordered to be sold at events consist of packaging that must be sent to landfill, thus hindering the zero waste goal. Cost effective alternatives should be researched and suggested for purchase. The packaging of these items would be entirely compostable or recyclable. Second, a compost pick up schedule should be set up with Athens so the sorted compostable waste can be hauled from campus after each event. The current team has established that Recreation is willing to cover the costs associated with this extra pick up, however the schedule has not been fully established to ensure regular hauling. Third, patrons should be further educated. The general attendance of Pauley Pavilion events are not fully aware of the initiative. Therefore they are still unsure of how to dispose of their wastes upon exiting the stadium. A continuing team should make outreach efforts at larger events, for example a Men's basketball game next season. This will further educate students and fans on the properly dispose of their purchased concession and bring the stadium closer to zero waste.

Communication and planning between student team and stakeholders held this project together. The student team found support, enthusiasm, and advice when meeting with both Rich Mylin and Nurit Katz. Their suggestions and cooperation helped propel our efforts. To continue the project, the student team would propose events management set-up a full pick up schedule with Athens to haul composting waste at every Pauley Pavilion event. Furthermore, permanent signage must be made for each bin in Pauley and janitorial education should be expanded. Though the team produced signs for the Zero Waste Spring Sing event the signs were not

permanent. Management should take into account this design and create laminated, lasting signs for each waste stream. Furthermore, events in Pauley Pavilion are staffed by different janitorial companies. The management should be sure to inform each company upon event preparation the proper system of sorting and disposal for wastes. In the current situation, the student team took responsibility for this. Overall, the student team hopes that our suggestion that all concessions ordered by compostable or recyclable is upheld upon the ordering of next season's items. This will truly allow for zero waste to be reached. The team's research showed that if only a few items were changed, the landfill waste stream would be eliminated. This would fulfill our goal.

Conclusion

Overall we completed a lot this year but there is still more to be done to make Pauley Pavilion entirely zero waste. Throughout the past two quarters we have learned about all of the processes behind how trash is taken away after an event. It was interesting to see how much is involved because most consumers throw things away and don't think much about it. The process of waste hauling and types of waste are what our project and ultimately our conclusion are centered around.

The first conclusion we reached is that we need to continue to raise awareness about composting and recycling. We need consumers to understand that taking a few seconds to sort their waste needs to be a regular part of their routine. We can't have student volunteers standing by each receptacle during every event. Eventually it needs to be something people do without help.

Our zero waste event did not go entirely as planned mainly because the waste company, Swayzer, put the waste bags in the incorrect dumpsters. We concluded that UCLA needs to work with one waste hauling company regardless of what entity is in charge of an event. SAA, UCLA

Facilities, and other campus departments all should be using the same company. This chosen company can then be taught the process behind the compost, recycle, and landfill dumpsters that pertain to our campus. This will make creating a zero waste campus much more feasible. Student effort and involvement does not have an impact if at the end of the event all of the waste bags go in the wrong dumpster.

Overall reaching zero waste is very possible for Pauley Pavilion and eventually all of UCLA. Our goal is ambitious, but by 2020 we should be able to say UCLA is a zero waste campus.

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Appendices

Waste audit at the men's basketball game winter quarter:



Bin #	Wgt. Full	Wgt. Empty	Total Wt. Recycled Wgt.
Recycling	114522	335 lbs	
Recycling	114517	488 lbs	
Food Waste	114523	723 lbs	490 lbs
" "	114524	775 lbs	510 lbs
" "	114525	470 lbs	
Trash	114518		
Compost	114519		
" "	114536		
" "	114501		
Apex Trash	114534		
Paulson	114538		
" "	114534		
Apex Trash	114535		

Our logo for the t-shirts given to volunteers at our zero waste event:



The signs we made for bins at our zero-waste event during Spring Sing:

RECYCLE



INCLUDES

- plastic bottles
- silverware
- plastic trays & lids

LANDFILL



INCLUDES

- condiment packets
- ice cream
- candy wrappers
- other thin plastic wrappers

COMPOST



ALL FOOD AND PAPER PRODUCTS

- napkins
- candy boxes
- frozen yogurt cup
- paper food trays

NO!

- plastic
- glass
- aluminum