

Zero Waste Event System

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Abstract:

Waste is becoming an ever increasing global problem. With exponential rates of population growth and increasing rates consumption, waste management is quickly becoming one of our top priorities. But how do we move beyond just waste management? How do we make our consumption practices less wasteful and more sustainable? The University of California Office of the President has issued a UC Sustainable Practices Policy that every UC must comply with. These policy changes require UC(s) to reach certain measurable sustainable goals, including a Zero Waste goal by 2020. To further achieve the UC-wide goal of Zero Waste by 2020, a standardized system for Zero Waste Events was implemented into UCSC. To create a system, three objectives were met: 1. Determine stakeholders, processes, and strategies needed for a cohesive, campus-wide Zero Waste system. 2. Create training modules for Zero Waste Event hosts. 3. Assist with large-scale Zero Waste Events by implementing the developed trainings and strategies. The following provides descriptions of various elements involved in creating a Zero Waste system for UCSC including the purpose, vision, goals, objectives, timeline and stakeholders associated with the creation, development and implementation of this project.

Context and Background:

Just within the past two centuries, we have experienced mass biodiversity loss, exponential deforestation rates, more intense natural disasters, rising and altering global temperatures, rising sea levels, natural habitat destruction, unsustainable human population growth, and other detrimental effects. We, as a species, have exploited Earth's natural resources far beyond the point of sustainability. Our resource consumption rate is far too great for Earth's natural processes to favor our high demands. If humans continue to disrupt and pollute our natural environment, we will eventually reach a point where no amount of sustainable or conservation efforts will be able to reverse the adverse effects of our actions. Although these are projections of the future, they are not inevitable. We, as a global society, have the choice of preventing further species extinction, reducing pollution in the atmosphere, oceans and terrestrial ecosystems, decreasing the rate of climate change, and creating a sustainable future. However, in order for global change to occur, we, as individuals, must first take responsibility for the resources we consume and dispose of such as energy, food, water, carbon emissions and waste.

According to the Environmental Protection Agency's department of Municipal Solid Waste, the average American produces an average of 4.4 pounds of garbage a day, which translates to 29 pounds per week and 1,600 pounds a year. We, as a nation, produce about 250 million pounds of solid waste every year. Unfortunately, of this staggering amount, more than 65% of this waste goes directly to the landfill (2013). This means that less than 35% of the waste produced is being recycled or composted or otherwise diverted from the landfill. When biodegradable materials such as food scraps or paper end up in the landfill they are unable to properly

decompose. Instead, these biodegradable materials decompose without proper oxygen concentrations and in the process produce a greenhouse gas with a global warming potential 72 times greater than carbon dioxide (over a span of 20 years), methane. As a result, landfills are the third top producers of methane (Methane Emissions, EPA, 2013). Although methane only exists in the atmosphere for an estimated 8-12 years, its short-term impact on our atmospheric greenhouse gas concentration can have prolonged impacts on the delicate ecosystems of our planet.

In order “to reduce its environmental impact and fight global warming (Sustainability at UCOP),” University of California Office of the President (UCOP) has established certain parameters and goals that must be met by every University of California. Each parameter encourages sustainable practices in all aspects associated in university life such as energy, transportation, food systems and waste.

The University of California, Santa Cruz has a working group dedicated to waste reduction which focuses on implementing and reaching the UCOP goal of Zero Waste by 2020 which ideally includes the involvement of various student organizations, departments and the UCSC Zero Waste Team, of which I am a part of. The Zero Waste Team consists of a group of students dedicated to creating and continuing campus-wide projects that focus on waste reduction and diversion to ultimately reach the UCOP appointed goal of Zero Waste by 2020.

Project Description:

The focus of my project was set on creating a campus-wide, formalized system for Zero Waste Events that promotes and encourages waste reduction and waste diversion for all campus events. In addition to helping UCSC meet its Zero Waste goal by 2020, Zero Waste Events help promote waste reduction and diversion awareness and practices by educating both students hosting and participating in any event on campus. The Zero Waste Event system ultimately exemplifies UCSC's efforts to incorporate sustainability in all aspects of campus activity and demonstrate to current and future students what we prioritize as a public institution. To achieve the goals stated above, 3 objectives were met. The first objective was determining stakeholders, processes, and strategies needed for a cohesive, campus-wide Zero Waste system by Spring 2014. The second objective consisted of creating two training modules for Zero Waste Event hosts by Spring 2014. The final objective was assisting in making one large scale event a Zero Waste Event such as the Edge of Eden Music festival and assisting with 2-3 smaller events in becoming Zero Waste events by implementing the developed trainings and strategies.

Creating a Zero Waste Event system requires effective communication and cooperation between stakeholders such as student organizations, Conference Services, Student Environmental Center (SEC) and others. Already UC's such as Irvine and Davis have established similar systems on their campuses, which have contributed to waste reduction. Although the UCSC Sustainability Office and the SEC promote Zero Waste Events (ZWE), we as a campus lack the proper system to make

ZWE prominent. To achieve the first objective, I conducted research to determine the strategies and processes used and implemented in other UC's. In addition, I have networked and established relationships with and between various stakeholders across campus in order to achieve effective communication and cooperation.

The second objective has been achieved by determining what elements of our current Zero Waste system function and/or need to be revisited. In determining these elements, three training modules were developed and will be available in the form of a PowerPoint presentation, PDF pamphlet and three video trainings by Spring 2014. Essentially these training modules will provide the necessary information to host a Zero Waste Event and train any volunteers or students involved in hosting the event. Ideally the trainings will be thorough and explicit enough to minimize involvement of the Zero Waste Team, Sustainability Office, or SEC in planning any event.

The final objective was accomplished by working with a large-scale annual event committee to maximize the total amount of waste diverted from the landfill. This year, I worked with the Edge of Eden planning committee and was able to make it a Zero Waste Event. Large events provide the perfect opportunity to create waste reduction awareness among the UCSC student body. In addition, smaller events were targeted and were assisted and made Zero Waste events.

To determine if all of my objectives were met the following must be well established and completed by the end of Spring 2014: three forms of Zero Waste Event trainings will have been developed and provided to the public, a functional standardized ZW system will be in place and waste statistics concerning waste diversion during Edge of Eden Music Festival will be provided.

These three objectives combined will ultimately lead UCSC closer to becoming a more sustainable campus, create a greater awareness of waste reduction efforts, and most importantly, reduce campus waste.

Project Timeline:

- A PowerPoint presentation on "How to Host a Zero Waste Event" will be developed By December 2013.
- A training manual for "Trash Talkers" will be developed by December 2013.
- Meet with SEC to determine roles of each organization in the ZWE system by February 2014.
- Meet with SOAR director to discuss ZWE by March 2014.
- Develop video training on hosting ZWEs by Spring 2014.
- Assist with the process of making the 33rd Multicultural Fest a ZWE by May 2014.
- Assist with the process of making the Edge of Eden Music Festival a ZWE by June 2014.

Stakeholders, Student and Mentor Roles:

In order to create a cohesive Zero Waste Event system, proper communication and interaction between all stakeholders is evident. To begin creating a dialogue between stakeholders, I met with organizations and departments that host events such as SEC and SUA to discuss the role each will play in the Zero Waste system. The Zero Waste Team met with SEC by the end of Winter quarter 2014. The remaining stakeholders were contacted and met with by the end of Winter Quarter 2014 or by early Spring Quarter 2014. In addition to meeting with various stakeholders across campus, I consistently coordinated with my mentor for this project, Elida Erickson, to ensure constant progress. Elida with help me navigate the UCSC system and provided constructive feedback all throughout the course of the project.

Evaluation:

To determine if all of my objectives were met the following must be well established and completed by the end of Spring 2014: three forms of Zero Waste Event trainings will have been developed and provided to the public, a functional standardized ZW system will be in place and waste statistics concerning waste diversion during Edge of Eden Music Festival will be provided.

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