

Tri Rho: Reduce, Reuse, Recycle

We strive to create a culture of sustainability and Zero Waste in the CU Boulder community, particularly within the Greek community, that will create lasting habits for sustainability. Instilling and promoting this Zero Waste culture will help divert waste from landfills and contribute to greenhouse gas abatement and resource conservation. We intend to help Greek chapter houses subscribe to recycling and composting services by facilitating the purchase of indoor and outdoor recycling and compost bins, and furthermore, we will ensure that these houses are actually using those services. Through community collaboration with the CU Environmental Center and the City of Boulder's Universal Zero Waste Ordinance Enforcement team, we will create educational materials, workshops, and a Greek community-wide event, that will help bring the entire Greek community into compliance with the City of Boulder's (COB) Universal Zero Waste Ordinance. By creating a "Sustainability Chair" position within chapter houses that do not already have one, and appointing at least one person for the position within each chapter house that we work with, we will create sustainable opportunities that are not only easy and fun, but are also solid resume builders.

By the end of this Spring 2017 semester, we will contact all of the Greek chapter houses, and initiate and implement a Zero Waste program with at least five of these houses. We will compile all of our qualitative and quantitative data into a comprehensive report, which we will present to the pertinent members of the Greek community, as well as CU Boulder's Environmental Center, with the hope that we can create a Zero Waste educational program--and ongoing Zero Waste culture--that will spread even beyond Greek chapter houses, and last indefinitely.

Matching funds or in-kind support

We will receive in-kind support--in the form of Zero Waste stickers and educational materials as well as staff guidance--from the CU Environmental Center and the City of Boulder. Rebates from the City of Boulder may cover up to fifty percent of the costs of Zero Waste indoor bins and other necessary signage for waste disposal receptacles on the Greek chapter house premises.

Project Timeline

Action Step	Initiated/Submitted by	Implemented by
Apply for Sustainable CU Grant (among Boulder County Zero Waste Grant and Potential Others)	February 7th	February 24th
Continue communications with Greek chapter leadership, identify and contact waste services subscriber for each chapter house.	January 23rd-March 10th	March 10th
Schedule and present at least 5 workshops with various Greek houses on Zero Waste culture and how to	February 6th	April 10th

properly compost and recycle. This will require that we: <ul style="list-style-type: none"> • Acquire bins • Place bins within chapter houses • Create an event and workshop schedule • Recruit Green Teams volunteers • Establish metric baselines and standards for collecting data 		
Begin coordinating Greek Week Zero Waste event with Greek community partners	February 15th	April 10th
Assess and Revise: <ul style="list-style-type: none"> • Assess what still needs funding and look for appropriate grants or resources • Divy up fundraising responsibilities • Continue Zero Waste workshops and coordinating Greek community Zero Waste event 	March 10th	April 7th
Schedule and present at least two more workshops	March 10th	April 7th
Implement Greek Week Zero Waste event	April 10th	April 14th
Analyze metrics from workshops and event services and evaluate their effectiveness	April 14th	April 21st
Meet with representatives from the CU Environmental Center and E-Board. Present our project findings and successes, and propose that CU Environmental Center and Greek community absorb this project into future years.	April 14th	April 24th

Scope

In order to provide adequate indoor recycling and compost bins to foster effective waste management within Greek chapter houses, as well as providing informational sessions on how to properly use said receptacles, we request \$4,660 in Sustainable CU Grant funding. The campus groups that need to be involved, in order to catalyze and foster a Zero Waste culture within the Greek Community, are listed as follows:

INVST Community Leadership Program

Three members (Ben Foxman, Elana Brown, and Haley Monahan) of the INVST Community Leadership Program have already created a project design, timeline, and budget, as well as continued efforts in coordinating recycling and composting services with multiple Greek chapter houses.

CU Environmental Center

The Green Teams, as well as CU's Environmental Center's Greek Sustainability Coordinator (Spencer Turk), provide Zero Waste outreach expertise, educational resources for

CU Boulder community members, and a team of up to six people that are eager to volunteer their time to help catalyze and foster our project design. The CU Environmental Center will also foster our partnership with the City of Boulder, who will supplement our project with educational Zero Waste materials, and rebates for each indoor recycling and composting bin we purchase through Trash Cans Warehouse.

CU Boulder Panhellenic Council

Coordinating our project with this Greek governmental council will ensure that we are reaching the pertinent people to effectively execute our project design. This item also includes the Interfraternity Council; however, they are technically an organization largely independent of CU Boulder's administrative jurisdiction.

Feasibility

We have already communicated with around eight CU Boulder Greek leadership representatives so that we can facilitate their acquisition of at least the minimum infrastructure necessary to provide recycling and composting services for their chapter houses. After applying for the Sustainable CU Grant, our next major step involves establishing the baseline infrastructure for as many Greek chapter houses as possible, while proposing our initial ideas to host Zero Waste workshops for each interested chapter. The timeframe of January 23rd-March 10th provides plenty of room for communication time and unexpected setbacks on our project timeline. Furthermore, the timeframe of February 6th-April 10th provides us just over two months to facilitate recycling and composting services for as many chapter houses as we can coordinate with, schedule and implement at least five workshops with five separate Greek Life chapter houses, appoint "Sustainability Chairs", who, as chapter members with official leadership position within their chapter, will act as liaisons between our Zero Waste project group and their chapter leadership, and create a Zero Waste event during Greek Week that will instill a Zero Waste mentality within our Greek Life community. Once we implement our Greek Week Zero Waste event, the timeframe of April 14th-April 24th provides us enough time to conduct another door-to-door assessment of recycling and composting services each participating chapter uses, and compile our qualitative and quantitative data into the comprehensive report that we will present to the pertinent Greek Life representatives, as well as the CU Environmental Center.

Environmental Impact

Increasing the amount of students in compliance with the Zero Waste Ordinance will assist in resource conservation, greenhouse gas abatement, and soil/water quality preservation:

- Though not all plastics can be created from recycled plastic, and not all plastics can be recycled, we can help to eliminate at least some usage of the non-renewable resources that go into making plastics products, such as oil and natural gas (Hopewell et al, 2009).
- Biodegradable materials cannot adequately decompose in landfills. The CU Environmental Center reported "when compostables are stuck in landfills with no oxygen to help decompose, they begin to slowly release methane and can do so for years" (Environmental Center, 2016). Furthermore, incinerators that burn trash emit carbon dioxide, as well as nitrous oxide, which are both greenhouse gases (Eureka Recycling).

Reducing greenhouse gas emissions will ultimately contribute to the zero waste component of CU's Carbon Neutrality Plan.

- According to the EPA website, benefits of composting are reducing the need for chemical fertilizer, promoting higher yields of agricultural crops, and revitalizing forests, wetlands, etc. (Environmental Protection Agency, 2016).
- Collaboration between CU and student groups to increase recycling for the above reasons is an objective of CU's Blueprint for a Green Campus.

Student Involvement

The student group that is leading this project is associated with the INVST Community Leadership Program. This social and environmental justice focused program encourages students to volunteer in their communities and beyond in a way that is both responsible and constructive for all parties. The INVST program requires students in their second and final year to design and implement a community based service project of their own design within the local community, commonly referred to as the SOL project. This specific Zero Waste project is the SOL project for three current INVST cohort members: Ben Foxman, Elana Brown, and Haley Monahan. These students are also in collaboration with the Greek Sustainability Coordinators housed in CU's Environmental Center, which are student held positions.

Furthermore, CU Boulder has at least 9 sororities and 17 fraternities that contribute to the Greek community and that also have chapter houses for members. This project will most directly affect the people living in these Greek houses by initiating an easier transition to Zero Waste by providing infrastructure and education for composting and recycling. The intention is that more students will indirectly benefit through the support of a Zero Waste culture around CU's campus. This project is student led and student implemented, so correspondence between Greek houses and project leaders will be completely student based. Students are applying for the funding, building relationships with the Greek community and student leaders there, and running the informational workshops for chapter houses. This project was also designed by students in a very intentional way to help bridge different student communities and enhance sustainability education around campus.

Social Equity

Our project not only benefits students involved in Greek life by educating them about recycling and composting, and making it easier for them to do so, but it may also create lasting habits for sustainability in the Greek community. Students involved in Greek life make up a minor, yet influential, group of students at CU. These students come from all over the country, and have very diverse backgrounds. Some students may even come from areas that do not have Zero Waste programs, or even a recycling service. By educating them about environmental issues that arise from not diverting waste from landfills, we can increase the chance that these sorority and fraternity members will compost and recycle in the future and beyond CU.

In a sense, we may also be indirectly involving disadvantaged people affected by environmental racism. Though these people are not directly affiliated with CU Boulder, they are affected by noncompliance of the Zero Waste Ordinance. Landfills and waste management facilities tend to be located in low-income areas (Bullard, 2000). By increasing the number

of people compliant with Boulder’s Zero Waste Ordinance, we are reducing the amount of waste in landfills and thus the negative effects imposed on these marginalized communities.

Innovation

Our project would further CU’s efforts towards Zero Waste in a new fashion. While CU is already addressing Zero Waste on campus as well as off campus through use of the Environmental Center’s Green Teams, the Greek community has been left out of these targeted projects. Green Teams do outreach and education about the new ordinance on and off campus with students, but the Greek community continues to remain outside of their purview. This was determined through interviews with relevant stakeholders and a survey that involved walking around all of the Greek houses to determine what services were currently being subscribed to and where. After conducting a survey of all Greek houses and their current waste streams (whether they offer recycling, composting, have contamination, etc.) it was reaffirmed that this population was a good place to focus. Results showed that while most of the fraternities and sororities had recycling, and many even had compost, there were still at least twelve houses that were not subscribed to recycling and composting services. Furthermore, through meetings and qualitative research with chapter Presidents, it was determined that while the outdoor services may be present, infrastructure indoors to facilitate composting and recycling may be lacking.

Project Budget

Item Required	Source of Item	Source of Price Quote	Unit Price	Units Requested	Total Price for Item(s)
Recycling Bins	Trash Cans Warehouse	Company Website	\$60	26	\$1,560
Composting Bins	Trash Cans Warehouse	Company Website	\$60	26	\$1,560
Compost Lids	Trash Cans Warehouse	Company Website	\$40	26	\$1,040
Food and supplies for education and outreach event			\$100	5	\$500
				Total	\$4,660

Savings

The City of Boulder offers a fifty percent rebate for organizations that invest in Zero Waste infrastructure, including purchasing indoor waste management receptacles <https://bouldercolorado.gov/zero-waste/zero-waste-resources>. By assisting with the cost of providing indoor receptacles, Tri Rho will save out-of-pocket costs for Greek chapters interested in improving waste diversion rates.

Project Longevity

Tri Rho: Reduce, Reuse, Recycle is an internally economically sustainable project. Its main objective is getting chapter houses subscribed to recycling and composting services through their waste haulers, which once completed, will continue unless changed intentionally, which would be unlawful under the new ordinance and result in fines for the properties that removed said services. Therefore, no further direct action will need to be taken. Furthermore, the project's participants are working on a volunteer basis and in collaboration with people from the Environmental Center and the Greek community at the University of Colorado Boulder whom are also graciously donating their time. Most of the monetary expenditures for this project will be captured in buying recycling and compost bins to give to the Greek community and to buy food for the workshops. Once these purchases are made they will not need to be made again.

With the establishment of a Sustainability Chair in each of the participating chapter houses, a Zero Waste culture already cultivated by this project can be maintained past the academic year. We are working with the Greek Sustainability Coordinators from the Environmental Center to ensure that these chairs are encouraged as part of leadership boards in each house for continuous years.

Applicant Information

Elana Brown (student) – Environmental Studies – elana.brown@colorado.edu

Haley Monahan (student) – Environmental Studies and Political Science – haley.monahan@colorado.edu

Ben Foxman (student) – Environmental Studies and Evolutionary Biology – benjamin.foxman@colorado.edu

Bibliography

- Baril, Dan. Interview. 14 October 2016. Interviewed by Haley Monahan, Elana Brown, and Ben Foxman. UMC CU Boulder.
- Barlow, Lisa. Interview. 30 September 2016. Interviewed by Elana Brown. Baker Hall CU Boulder.
- Bullard, R. D. (2000). *Dumping in Dixie: Race, class, and environmental quality* (Vol. 3). Boulder, CO: Westview Press.
- Carrico, Amanda. Interview. 7 October 2016. Interviewed by Elana Brown. SEEC CU Boulder.
- Celik, I., Ortas, I., & Kilic, S. (2004). Effects of compost, mycorrhiza, manure and fertilizer on some physical properties of a Chromoxerert soil. *Soil and Tillage Research*, 78(1), 59-67.
- CU Environmental Center. "Why Should I Compost?". Retrieved December 03, 2016, from <http://www.colorado.edu/center/recycling/compost/why-should-i-compost>.
- Cushing, Leigh. Interview. 28 September 2016. Interviewed by Ben Foxman. Vic's Coffee. Boulder, Colorado.
- Debell, Jack. Interview. 30 September 2016. Interviewed by Haley Monahan. UMC CU Boulder.
- Eureka Recycling. (2003). *Environmental Benefits of Recycling and Composting*. Minneapolis: MN, Eureka Recycling Center.

- Fridland, David. Interview. 30 September 2016. Interviewed by Haley Monahan. Phone.
- Greekrank. "Universities." *University of Colorado Boulder - UCB - Greek Life Overview*. Web. 4 Dec. 2016.
- Hopper, J. R., & Nielsen, J. M. (1991). Recycling as altruistic behavior normative and behavioral strategies to expand participation in a community recycling program. *Environment and behavior*, 23(2), 195-220.
- Hopewell, J., Dvorak, R., & Kosior, E. (2009). Plastics recycling: Challenges and opportunities. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1526), 2115-2126. doi:10.1098/rstb.2008.0311.
- Sutherlin, Ambra. Interview. 4 October 2016, Interviewed by Ben Foxman. Boulder County Public Health Offices.
- United States Environmental Protection Agency. Sustainable Management of Food. Retrieved 2016, from <https://www.epa.gov/sustainable-management-food/reducing-impact-wasted-food-feeding-soil-and-composting#benefits>.
- U.S. News and World Report. *Here's What Student Life Is Like At CU Boulder*. Retrieved October 16, 2016, from <http://colleges.usnews.rankingsandreviews.com/best-colleges/cu-boulder-1370/student-life>.