Introduction
The Sustainable Stanford Internship Program provides a paid opportunity for students to gain hands-on experience implementing programs that influence on-campus sustainability. Each intern will commit to a summer or academic year-long program working to manage a campus sustainability project and bring about tangible results. In addition to gaining experience in sustainability project design and implementation, interns gain exposure to sustainability careers and a network of program alumni.

The 2014-15 Sustainable Stanford Intern Cohort included more than 35 undergraduate and graduate students. More information on this program is available at http://sustainable.stanford.edu/internships

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Increasing Reusable Mug Use at Campus Cafes

Team Members:  
Michaela Elias

Supervisor:  
Julie Muir

Internship Title:  
PSSI Zero Waste Intern

Project Summary:  
My project was to encourage the use of reusable mugs on campus. I began by talking to coffee shops about the discounts they offer for reusable mugs and the degree to which they encourage reusable mug usage. I found that while many coffee shops offer discounts (though Coupa didn’t which was something I worked with them on for a long time), it was not something they were actively working to promote. I then designed and ordered 240 reusable mugs with the “Green Caffeine” logo. I gave them out in White Plaza, at a sustainability fair, and at an Earth Day festival. I had everyone who received a cup write down their names and emails as an agreement to use the mugs and also so that I could send out a follow up survey.

I sent out a survey about three weeks after giving out the cups with questions about the recipient’s experiences using them. I got 55 responses, mostly from undergrads and some from staff. Many people said they used the mugs when they remembered to bring them and people were frustrated that the top didn’t close completely (the vacuum sealed tops would have been much more expensive). But the most interesting feedback I got was that many people, unprompted, said that they didn’t use the mugs because it wasn’t a social norm. I would never have guessed that people felt self-conscious using a mug just because everyone wasn’t using them. So my suggestions going forward would be to make using reusable mugs a social norm, for example doing what they do at grocery shops with paper bags and asking customers if they want one and then charging extra for it.

Project Status:  
My project is completed in terms of raising awareness on campus about cup waste and pinpointing the obstacles to greater reusable cup usage on campus. The next steps would be to incorporate the information I have garnered into future campaigns to encourage the usage of reusable cups.
Internship Time Commitment:

☐ 1-3 hrs/wk  ☑ 3-8 hrs/wk  ☐ 8+ hrs/wk

Measureable Outcomes:
- Distributed 240 reusable mugs to students and staff at Stanford
- Informed students of discounts for using reusable mugs at coffee shops
- Informed students about cup waste
- Developed survey that was distributed to 240 people and received 55 responses
- Developed a report and slideshow about the project and potential future steps for the campaign.
- Met with managers of coffee shops to encourage further discounts and talked to the building manager of Y2E2 to encourage Coupa to give discounts

Project Highlights/Favorite Moments:
I loved giving out the mugs and seeing people grateful and excited to receive them and supportive of the campaign. I also really enjoyed reading the feedbacks from the surveys and found them to be very interesting and surprising.

Project Challenges/Lessons Learned:
One challenge was definitely working with coffee shops. There was nor real incentive of coffee shops to cooperate and prioritize this campaign. They would send me in circles each person telling me to talk to someone else and then sometimes not responding entirely. It would be great if there was some more pressure from higher up to encourage them to be more proactive. Also it was kind of frustrating that the people who were most likely to come to the table were people that were already using reusable cups and were more sustainability oriented. Getting the people for whom this was not a priority was a lot harder and I think would require more of a status quo shift.
Improving Waste Diversion Rates in Academic Buildings

Team Member:
Sarah Brickman

Supervisor:
Julie Muir

Internship Title:
Zero Waste Intern

Project Summary:
The purpose of my project was to assess the need for alterations to classroom waste management to support PSSI in reaching its goal of 75 percent of waste diverted from landfill by 2020. I analyzed the type of waste in classroom trash bins and recycle bins through seven waste audits on the third floor of Wallenberg Hall. Between 8 and 10 pm, I entered every unlocked classroom and recorded the number and type of items in each trash bin and recycle bin, where applicable. (Each classroom had a trash bin, but some classrooms didn’t have a recycle bin.) On my spreadsheet, I categorized the items as landfill, plastic/metal/glass, paper, or compost. While performing the waste audits, I took pictures of classroom trash bins and recycle bins to visually capture the items that are being placed in these containers.

After analyzing my data, I found that both the total and average number of compostable items in classroom trash bins outnumbered landfill items by 175 and by 3, respectively. Furthermore, the average number of recyclable items in the trash bins was about 2 for both plastic/metal/glass and paper; these counts should be zero if everyone disposed of waste properly.

In addition, I made a customized, educational sign for plastic/metal/glass recyclables to show which items that I commonly found in Wallenberg Hall trash bins actually belonged in the plastic/metal/glass recycle bin. Also, I asked my boss at PSSI to place paper and plastic/metal/glass recycle bins in the western third-floor stairwell, since this stairwell only had a trash bin, while the eastern stairwell had recycle bins and a trash bin.

Finally, I tabled for PSSI at campus events and performed a waste audit at the Woods Institute in Y2E2 to show the need for their (now implemented) composting program.
**Project Status:**
Next steps include sharing the waste audit findings with people who have the power to place compost bins in classrooms, or at least in centralized locations outside classrooms. If any adjustments to Wallenberg Hall’s present waste management system are made, I recommend either placing a compost bin in every classroom, along with a trash bin and two recycle bins (one plastic/metal/glass and one paper), or removing all classroom bins and replacing them with bins in centralized locations. From my work for PSSI this year, I have noticed that when a waste bin stands alone (whether it be landfill or recycling), people indiscriminately place all waste in that bin, but when multiple bins are available, waste is sorted into the proper bins. (As another next step, somebody could test this observation through a formal study.)

**Project Timeline:**
**Fall quarter:**
- September: Orientation meeting with Sustainable Stanford
- October: Orientation meeting with Julie
- November: Project planning
- December: Solidified project purpose; received permission from Wallenberg Hall building manager to perform waste audits

**Winter quarter:**
- January: Performed one waste audit in Wallenberg Hall
- February: Performed two waste audits in Wallenberg Hall
- March: Performed one waste audit in Wallenberg Hall

**Spring quarter:**
- April: Performed three waste audits in Wallenberg Hall
- May: Analyzed data from waste audits; created customizable sign for plastic/metal/glass items in Wallenberg Hall
- June: Presented project to fellow Sustainable Stanford interns

**Internship Time Commitment:**

- [x] 1-3 hrs/wk
- [ ] 3-8 hrs/wk
- [ ] 8+ hrs/wk
**Measureable Outcomes:**
- Performed seven waste audits in Wallenberg Hall
- Created one customizable sign for Wallenberg Hall to show which items should be placed in plastic/metal/glass bins
- Requested that PSSI place one plastic/metal/glass bin and one paper bin in the western, third-floor stairwell of Wallenberg Hall

**Project Highlights/Favorite Moments:**
While I was performing waste audits in Wallenberg Hall, I conversed a little in Spanish with Gavino, the custodian who works in that building during evenings. I enjoyed getting to know him.

I learned so much about waste management on campus. I now have a much better understanding of which items belong in which bins on campus. I liked tabling for PSSI at campus events and educating people how to properly dispose of various items.

**Project Challenges/Lessons Learned:**
It took me a while to form a solid project plan and then to actually begin my project. I should have put more time in to my project early fall quarter. In addition, once I had a project plan, I didn’t put enough time in to consistently implementing my project each week. I should have forced myself to work a certain number of hours each week, rather than working five hours one week and none the next.
Encouraging Sustainability Engagement through Communications

Team Members:
Natalie Urban

Supervisor:
Meghan Kearns

Internship Title:
Outreach & Community Engagement Intern

Project Summary:
Throughout the 2014-2015 school year, I worked on a variety of projects for the Office of Sustainability centered around promoting sustainability on campus through events, social media, and involvement on the row. Since I am also a ResEd staff member in a sorority house, I was particularly interested involving the Greek community at Stanford. The final project of my internship involves redesigning ResEd’s row staff training to incorporate elements of sustainability in order to both make the training itself more green and also to propagate a culture of sustainability throughout the year in row houses. Initially, I envisioned a traditional curriculum to teach managers about sustainable practices in their residences.

However, after discussing with managers who did training last year as well as ResEd, I decided that non-traditional hands-on learning experience would be more impactful. With help from Cole Shiflett of ResEd, I designed a learning module in which the house where managers dine would serve as an interactive learning environment, focusing on sustainable food, water conservation, and waste management. My hope is that by working with ResEd on this project, a longer lasting relationship can form between ResEd and the Office of Sustainability.

In addition to this focus project, I worked on Cardinal Green Campaigns, including Winter Closure and Recyclemania. I also worked as a coordinator between sustainability student groups on campus, compiling contact information for club leaders and helping to organize campus events that involved multiple student groups. I was involved in planning the Office of Sustainability’s big annual events here on campus, such as Keys to Sustainability in the fall and Celebrating Sustainability this spring. To help connect all the sustainability interns on campus, I created a Facebook page where interns could share resources and collaborate on projects.
Project Status:
ResEd has not yet finished planning Row Staff Training, so incorporating sustainability into the training is still in the initial development phase. While we have a plan for what training will look like, details will need to be finalized over the summer. Because I am graduating this June, I will not be on campus to coordinate sustainability training during Row Staff training in September. Therefore, I will have to pass off my project plan to Meghan Kearns and her future intern for implementation.

Project Timeline

January: contacted Cole about involving the Office of Sustainability in Row Staff training
February: met Cole in person to discuss the idea
March/April: brainstorm ideas and develop initial plan, speak to Row managers, discuss with Meghan
May/June: Row Staff Training planning begins; meet with Cole to discuss and brainstorm how sustainability will fit in
June: develop final ideas for curriculum; meet with Meghan and Cole to pass project off to Meghan

Internship Time Commitment:

- 1-3 hrs/wk
- 3-8 hrs/wk
- 8+ hrs/wk

Measurable Outcomes
- Brainstormed 15+ ideas for incorporating sustainability to row staff training
- Developed 3 possible curriculum concepts and 1 final plan
- Compiled 36 student club leaders contacts
- Helped coordinate 2 campus-wide sustainability events
- Transcribed 500+ RecycleMania Pledges
- Created/managed 1 Facebook page with 20 sustainability intern followers
- Tabled 5 events promoting Cardinal Green campaigns
- Compiled list of 7 Earth Month events from various student organizations leading up to Celebrating Sustainability
- Updated 200+ emails in the sustainability newsletter database
- Performed in a music video promoting RecycleMania
- Developed Winter Closing plan for sorority houses in Cowell cluster
- Participated in Design Thinking workshop
- Connected the Green Store to sororities to provide compostable table ware for 3 banquet dinner events (200+ people each)
- Sent 20+ emails to Row Staff and Greek Life email lists promoting sustainability events and happenings on campus

Project Highlights/Favorite Moments:
One of my favorite aspects of my project was brainstorming creative solutions to incorporating sustainability into Row Staff training. Using what I have learned about design thinking and creative problem solving, I was able to think about the sustainability training experience in a new way and avoid traditional ways of teaching that have not succeeded in the past.
Another highlight for me was helping to put on the big campus wide events, and seeing our hard work come to fruition and be appreciated by so many people. Celebrating Sustainability especially was such a great event, and I loved being part of the planning and coordinating process.

**Project Challenges/Lessons Learned:**
One of the most important lessons I learned was to be flexible with my project timeline, especially since it depended on meeting with people with very busy schedules. At times this proved a challenge, when meetings got pushed past my anticipated time frame and I had to adjust my plan accordingly. I also learned about coordinating and planning large events like Celebrating Sustainability, something I did not have previous experience with.
Developing a Sustainable Living Video

Team Members:
Olivia Reyes-Becerra

Supervisor:
Kristin Parineh, Manager of Housing Sustainability and Conservation Programs

Internship Title:
R&DE Student Housing Conservation Programs Sustainable Living Video Intern

Project Summary:
Throughout this internship, I helped write, cast, and produce a Sustainable Living Video Guide to showcase the variety of sustainable citizenship on Stanford campus. The Video complements Stanford’s Office of Sustainability and R&DE’s Sustainable Living Guide as a part of a larger university effort to educate and train Sanford’s community to work toward a sustainably-minded community.

The Video follows 6 stellar Stanford community members whose lives and work are impacted by sustainability. I helped organize the video format, coordinate interviews, and transcribe the full-length interviews to be pieced into the video.

Through community member interviews, the video will model accessible sustainable behaviors, making it easy for students, staff, and faulty to observe, repeat, and incorporate them into their lifestyles.

Project Status:
Currently, the video is in the filming stage. Having completed each featured member’s script, targeted sustainable behaviors to showcase in the video, and one-on-one interviews, we are now coordinating dates to capture additional footage to complement the topics they discuss in their interviews.

Project Timeline:

<table>
<thead>
<tr>
<th>Task</th>
<th>Date TBC</th>
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</thead>
<tbody>
<tr>
<td>Orientation meeting with Meghan</td>
<td>1/16</td>
</tr>
<tr>
<td>SLV Planning Meeting - Discuss SLV Goals</td>
<td>1/20</td>
</tr>
<tr>
<td>SLV Planning Meeting - Finish Discussing SLV Goals</td>
<td>1/29</td>
</tr>
<tr>
<td>SLV Planning Meeting - Identify SLV Characters, Behaviors, Filming Locations</td>
<td>2/5</td>
</tr>
<tr>
<td>SLV Planning Meeting - Discuss SLV Production</td>
<td>2/11</td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
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<td>----------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Meet with OOS to discuss SLV progress</td>
<td>2/17</td>
</tr>
<tr>
<td>SLV Planning Meeting - Discuss SLV Production</td>
<td>2/25</td>
</tr>
<tr>
<td>Review Sustainable Living Video Script, Production Timeline, and Logistics - R&amp;DE and OOS</td>
<td>3/3</td>
</tr>
<tr>
<td>Meet with Parking and Transportation</td>
<td>3/10</td>
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<tr>
<td>Scoping Interview Earth Systems Professor</td>
<td>3/18</td>
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<tr>
<td>SLV Planning Meeting - Discuss SLV Production</td>
<td>3/19</td>
</tr>
<tr>
<td>Review Sustainable Living Video Script, Production Timeline, and Logistics - R&amp;DE and OOS</td>
<td>3/24</td>
</tr>
<tr>
<td>Filming at ADFC in Chef Teaching Kitchen with David Ott</td>
<td>3/30</td>
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<tr>
<td>SLV Planning Meeting - Discuss SLV Production</td>
<td>3/31</td>
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<tr>
<td>Scoping Interview with Grad Student</td>
<td>4/3</td>
</tr>
<tr>
<td>Discuss SLV Map Concept, Music and Earth Day Shooting Vision &amp; Audio Taping</td>
<td>4/7</td>
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<tr>
<td>SLV Planning Meeting - Meet with Undergraduate Candidate</td>
<td>4/14</td>
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<tr>
<td>Review Undergraduate Script</td>
<td>4/21</td>
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<tr>
<td>SLV Planning Meeting - Discuss SLV Production</td>
<td>4/21</td>
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<tr>
<td>Gather Finalized Scripts for Interviews</td>
<td>4/23</td>
</tr>
<tr>
<td>Audio Taping</td>
<td>4/2, 4/30</td>
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<tr>
<td>Earth Day Video Taping</td>
<td>4/22</td>
</tr>
<tr>
<td>Create Audio Transcripts of Interviews</td>
<td>5/15</td>
</tr>
<tr>
<td>Film Scenes with 6 Candidates</td>
<td>June</td>
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<tr>
<td>Production</td>
<td>June</td>
</tr>
<tr>
<td>Finished Piece prepared</td>
<td>Early August</td>
</tr>
<tr>
<td>Submit Project Report</td>
<td>6/10</td>
</tr>
<tr>
<td>Present Project Report at SSIP Dinner</td>
<td>5/27</td>
</tr>
</tbody>
</table>

**Internship Time Commitment:**

- 1-3 hrs/wk
- ☒ 3-8 hrs/wk
- ☐ 8+ hrs/wk

**Measureable Outcomes:**

Measurable outcomes of SLV Project:
- Completed 5 transcripts of 30+ minute interviews
- Contacted 4 undergraduates as candidates for SSLV interviews

**Projected Project Impact:**
The Sustainable Living Video is to be shown at NSO and staff orientations and is to be hosted on R&DE’s website. In its first year, the SLV is projected to receive 3000+ views while being shown to 2500+ new students and staff.
**Project Highlights/Favorite Moments:**
While I was not able to attend the community member’s interviews, transcribing the footage was a very cool experience. Hearing the member’s personal stories about their commitment to the sustainability community and their path to sustainable citizenship is at once very close to some of the reasons I consider myself a part of the sustainability community and yet so personal to each individual that listening to each interview was inspiring.

**Project Challenges/Lessons Learned:**
The vision for the video took many forms. The process of considering all ideas and discussing the project vision took a lot longer than I initially expected, but it proved useful in cultivating trusting relationships with all team members.
Improving Lighting Efficiency in Student Housing

Team Members:
Ethan Heil (eheil@stanford.edu)
Haohao Wang (haohao@stanford.edu)

Supervisor:
Kristin Rae Parineh

Internship Title:
Energy Efficiency + Conservation

Project Summary:
Our focus as interns began with an assessment of current energy use within dorms. An initial analysis allowed us to focus on which R&DE buildings were consuming relatively more energy in three categories: Row Houses, Dormitory Buildings, Nonresidential Buildings (Appendix A). Using these tables as guides, we developed a plan to audit the largest energy consuming residential buildings with a focus on lighting. Our initial presumption was that many of these residences would be overlit, but after initial audits and comparison to suggested lighting levels, we found that the current lighting levels were mostly satisfactory except in areas that were already daylit.

With this realization, our focus shifted from delamping strategies to the potential for more efficient lighting replacements and controls integration (such as daylight and occupancy sensors). Our focus also shifted more specifically to large dormitory buildings instead of row houses. The larger dormitories have more homogenous lighting fixtures, allowing for easier implementation of large-scale replacements compared with row houses. In order to gauge the landscape for potential replacements, a number of lighting inventories were conducted (Appendix B). Concurrently, a significant amount of research on potential LED replacement fixtures and retrofit methods was conducted through interviews and meetings with facilities staff, product manufacturers, R&DE staff, PG&E representatives, energy efficiency specialists, electricians and lighting installers. A summary of a portion of this research is provided in Appendix C.

A small pilot bulb replacement was conducted in 4 undergraduate dorms wherein the existing CFL bulb was replaced with an LED bulb, including the compilation of pre- and post-surveys. A detailed financial analyses was then developed to estimate the energy savings, cost savings and payback period for a
number of retrofit scenarios (Appendix D). This analysis was subsequently presented to justify internal Stanford approval.

**Project Status:**
The project has evolved over the summer and has plans to move forward through a targeted light fixture replacement. A certain amount of work will be necessary to implement this retrofit effort on a decent scale. Pending results from this initial phase, similar rollouts could begin across R&DE properties.

**Internship Time Commitment:**

- [ ] 1-3 hrs/wk
- [x] 3-8 hrs/wk
- [ ] 8+ hrs/wk

**Measureable Outcomes:**
- A small-scale pilot project (4 dorm rooms) was undertaken, replacing 8 CFL bulbs with LEDs
- Survey results from these dorms provided neutral or positive results in all assessment categories
- Development of pilot retrofit scenarios that could lower energy use across 10 dorms by 4.3%
- This retrofit scenario would also save an estimated 186,550 kWh and $167,200 per year
- Individual dormitory savings can be seen below (note: these are projected savings)

**Project Highlights/Favorite Moments:**
Working with a variety of University employees across many departments to collaboratively develop a method for reducing energy use and saving energy.

**Project Challenges/Lessons Learned:**
Initial presumptions are not always correct. We thought buildings were overlit, and the simple fix would be to delamp existing fixtures. It took a while to reevaluate the scenario and move forward with a different strategy. Lesson learned: remain flexible and open-minded when developing sustainable strategies.
Water Conservation Audits in Student Housing

**Team Members:**
Kelsey Lange
Lingzhi Jin

**Supervisor:**
Kristin Parineh

**Internship Title:**
Water Efficiency and Conservation Interns

**Project Summary:**
For each house on the row, we measured and recorded the flow rates of every water fixture, starting with the houses that had the highest water consumption. Our measurements were made with several tools and methods, such as the water bag test. We sent each house a personalized report showing them exactly where the changes would be made, and asked for their input on other ways to help their house become more water efficient. The calculations for the reports were compiled in a massive spreadsheet that tracks all our data collection and interpretation. After installations, we wanted to let residents know that they were helping conserve water and encouraged them to think about how they could build on our work to save water in other ways.

A secondary project investigating the effect of shower timers was also considered, and transformed into work connecting the various groups invested in related shower projects.

**Project Status:**
All the houses on the row were completed, as detailed by our spreadsheet and reports. The fixtures are in the process of being installed. Next steps should be focused on collecting data to analyze the impact of the new fixtures, and continued audits and public outreach in other residences across campus. The detailed process is described in our work plan for future interns to continue the project.

**Project Timeline:**

*Fall:*
- **Oct:** finish work plan, prioritize houses (based on per capita water usage), print floorplans, card access to row houses, meeting with Jennifer Fitch, utilities
- **Nov:** finalize spreadsheets and schedule for data collection, audits (Storey, Narnia, Phi Sig, 567 Alvarado, Phi Kappa Psi, French House), mtg with Kevin, maintenance staff at Phi Sig
- **Dec:** kitchen audit meeting with Kong, audits (Hamm, Kairos, Sigma Nu, Grove, Muwekma, Haus Mitt, Synergy, 717 Dolores)
Winter:
- **Jan**: data processing, meeting with Vinnie about replacement fixtures, preliminary reporting
- **Feb**: data processing, report making, audits (Kappa Alpha, Kappa Sigma)
- **Mar**: meeting with Jim and Matt about potential retrofits, email student staff in houses for approval, start retrofits during spring break, update work plan

Spring:
- **Apr**: audits (Sigma Chi, Durand, Slav, Roth, SAE, Mars, Casa Italiana, Theta Delta Chi), create fliers/posters for the updated houses. Help increase student awareness & participation is water savings
- **May**: audits (Sigma Chi, Durand, Slav, Roth, SAE, Mars, Casa Italiana, Theta Delta Chi, Bob, 680 Lomita, Columbae, Xanadu), final presentation, final report, final poster

**Internship Time Commitment:**

- □ 1-3 hrs/wk
- ☒ 3-8 hrs/wk
- □ 8+ hrs/wk

**Measureable Outcomes:**
We fully audited and sent in change orders for water fixtures with flow rates above the sustainability goals for 28 houses on the row. Results of all recommended changes shown below.

**RESULTS**

<table>
<thead>
<tr>
<th></th>
<th>Toilets</th>
<th>Showerheads</th>
<th>Faucets</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>$864 14 fixtures</td>
<td>$4,122 55 fixtures</td>
<td>$456 57 fixtures</td>
<td>$5,432</td>
</tr>
<tr>
<td><strong>Annual Savings (Utility)</strong></td>
<td>$2,154</td>
<td>$7,003</td>
<td>$2,075</td>
<td>$11,232</td>
</tr>
<tr>
<td><strong>Annual Savings (Gallons of Water)</strong></td>
<td>$190,800</td>
<td>$620,300</td>
<td>$183,800</td>
<td>994,900</td>
</tr>
</tbody>
</table>

**Project Highlights/Favorite Moments:**
There was a strong sense of pride and accomplishment during our discussion with the house managers midway through the internship. We presented our data and recommendations and were able to clearly demonstrate how much we had already learned and discovered.

In the regular process of auditing houses, we felt like we were making a positive impact, and raising awareness of the role water fixtures play in water conservation efforts, when residents stopped and asked us about what we’re doing and then showed genuine interest in the project. The support of our peers was invigorating and reaffirming.
Project Challenges/Lessons Learned:
We didn’t realize until late in the project the value of asking the residents for their input before we came into the house for the audit. We gained some valuable insight from their responses and simultaneously gave the residents a sense of ownership and participation in the water conservation project.
Reducing Waste in Student Housing

Team Members:
Ariel Bobbett, Hailey Clonts, and Ye Wang

Supervisor:
Kristin Parineh

Internship Title:
Zero Waste

Project Summary:
The Zero Waste interns had two primary projects this year: bathroom composting and zero waste rollouts. The goal of these projects was to reduce the amount of waste generated in student housing going to the landfill through increasing recycling and composting rates. Recycling and reducing landfill waste saves energy, reduces our impact on the environment, and saves Stanford money because we pay to have our landfill waste taken away. We first identified potential residences based on current landfill usage and potential cost savings, support from resident fellows and building managers, and interest from students. After identifying potential residences, we collected baseline data during fall quarter on the fullness of each landfill, recycling, and compost bin in the outdoor waste corral at each residence. We then did internal assessments in each dorm, noting what bins were present in each room, and what additional bins were needed to match waste generation in each space. We then presented our findings and recommendations to the RAs, RFs, and building managers of each residence to gain their input and support.

The zero waste rollout entailed ordering and placing labeled bins for every waste stream generated in each room. This meant adding compost bins for the paper towels in the restrooms, and labeled common area stations with Slim Jim bins for paper recycling, landfill, and plastics, metals, and glass recycling. We also replaced the existing bins in student rooms with stackable multi-recyclers to improve waste diversion. This three bin system, piloted successfully by the zero waste interns last year, had a landfill bin, a paper recycling bin, and a bin for plastics, metals, and glass so that students could sort their recyclables in their room rather than outside at the waste corral. We originally intended to do full zero waste rollouts at each dorm, but due to funding and time limitations, were only able to do full zero waste rollouts at Kappa Sigma and Sigma Nu. The remaining eleven dorms got bathroom composting only, which was also successfully piloted last year during the Zero Waste internship. For bathroom composting, we relabeled the existing waste bin in the restroom for compost and added a smaller landfill bin for other waste generated in the bathroom (like floss or shampoo bottles). During implementation, we met with the custodial staff to explain the new waste system and answer any
questions. We also attended dorm meetings and sent follow-up emails to residents to explain how to use the new bins. After implementation, we monitored the fullness of waste bins in the waste corral and reduced landfill service at four locations. This was very time and cost effective way to reduce the amount of landfill produced in dorms.

Additionally, we worked with an assorted group of people to enable row houses, fraternities, etc to purchase recyclable and compostable cups from The Green Store. Previously, only student groups registered with ASSU could do so, but we worked with their supplier at the Axe and Palm to allow houses to purchase them directly from him.

Project Status:
Bathroom composting is in place in eleven dorms: Lantana, Castaño, Kimball, Storey, Muwekma, Columbae, Roble, Robinson, Potter, Schiff, and Adams. Sigma Nu and Kappa Sigma have full zero waste rollouts. The work is completed, but the next step is to expand bathroom composting and zero waste rollouts to more residences. Furthermore, the common bins at Sigma Nu should be evaluated next year to see if a more permanent (ie nonmovable) solution is necessary).

Project Timeline:
- **October:** Identify potential residences
- **November:** Monitor waste corrals for baseline data
- **December:** Interior assessments
- **January:** Meet with stakeholders: building managers, resident fellows, student staff
- **February:** Order new bins and signage March Wait for bins to arrive, prepare outreach materials
- **April:** Manzanita Park, Lower Row, Sigma Nu rollouts and data monitoring
- **May:** Roble, Governor’s corner rollouts and data monitoring
- **June:** Final data analysis, SSIP and R&DE student housing presentations, final SSIP report

Internship Time Commitment:

- [ ] 1-3 hrs/wk
- [x] 3-8 hrs/wk
- [ ] 8+ hrs/wk

Measureable Outcomes:
- Waste monitoring for 3 weeks pre-rollout at 14+ dorms
- Inputting and analyzing compost data for over 10 residences
- Created a process to enable nonVSO groups (e.g. row houses) to purchase recyclable or compostable cups from The Green Store
- Total of 13 houses made 27 orders
- Reduced landfill service at: Schiff, Lantana & Castano, Columbae & Muwekma, Kappa Sigma
- Added Bathroom Composting to 11 dorms; Lantana, Castano, Kimball, Roble, Muwekma, Columbae, Storey, Potter, Schiff, Adams, Robinson
- 2 Residences fully zero waste: Kappa Sigma and Sigma Nu
- Waste monitoring for 3 weeks post rollout at 4+ dorms
**Project Highlights/Favorite Moments:**
Although collecting waste data is not the most glamorous part of the job, it is extremely fascinating seeing what’s in our dumpsters and recycling bins. The first time I saw a bag full of paper towels in the compost bin outside of Sigma Nu after making the switch, I actually took a picture I was so happy! It was extremely useful having the support of residents from the house, and getting their input on what will work/what won’t, what would be most useful, etc. After monitoring various dorms for two quarters, it was extremely fulfilling to actually roll out bathroom composting in 11 dorms and receive such positive feedback from people I knew. I applied for this job because I wanted to do something that would actually make a difference, and there’s no doubt that what we accomplished this year will reduce the amount of paper towels going to landfill.

**Project Challenges/Lessons Learned:**
Through our projects, we met a few significant challenges, mostly due to communication issues. We found out halfway into the projects that it was really challenging to contact the residents, RAs, RFs and Building Managers to explain what we were doing and get feedback, and sometimes it was hard to convince them about why we should roll out bathroom composting and zero waste stations in their dorms. Only after having many conversations did we realize that things weren’t as simple as just putting some extra signs and bins in the dorms, because there were a lot of other factors to be considered, from aesthetic appeal to the extra work for custodians in the worst case scenario such as contamination. It really helped us understand the interconnectedness of various aspects of how the dorms and houses are run, enabling us to be more thorough in our future plans to include concerns of other stakeholder parties.
Introducing Sustainability at New Student Orientation

**Team Members:**
Emma Fisher

**Supervisor:**
Kristin Parineh

**Internship Title:**
“Create-your-own” internship / outreach intern

**Project Summary:**
My primary project was to create a sustainability messaging campaign to be rolled out in time for move-in in freshman dorms. I designed signs and stickers to give freshmen tips on how to live sustainably in the dorms, and to give them constant reminders to do so. Furthermore, by highlighting the importance of sustainability during freshmen’s very first experience living on campus, this campaign aims to make it clear that at Stanford, sustainable behavior is both the norm and the expectation. I held focus group sessions with current freshmen in Stern to get ideas on where and how improvements could be made. The main takeaways I got from the freshmen were that reminder stickers should be everywhere (the dorm should be turned into a sustainable learning environment), there should be more direction for “new” things they had to do, like sorting recyclables and doing laundry (sustainably of course!), that instant feedback was appreciated, and that people have a BIG influence on decisions and behavior (through actions, personal comparisons, and norms). One of my personal goals was to communicate why sustainability matters, and connect it to other students’ passions.

With these things in mind, I designed new signs for the dorms. I made signs to promote shorter showers (and teach about the importance of the drought – another thing the freshmen said they could use more information about), promote proper sorting of waste, turn off the lights, do full loads of laundry, etc. These signs were unified by the Cardinal Green Tree mascot. Additionally, I wrote a sustainability information sheet with tips on how to lives sustainably at Stanford and why it matters, and a “Cardinal Green Pledge.” Both will be distributed with move-in materials. Finally, and importantly, I designed a “commitment sticker” to go with the Cardinal Green Pledge. This sticker is meant to be displayed on students’ computers, water bottles, bulletin boards, etc. after signing the Cardinal Green Pledge to show their commitment to sustainable behavior at Stanford. This sticker underwent many iterations and modifications. I interviewed students and sent out surveys to hone its “cool factor” (how likely
students would be to display it) and the strength of its message. I hope that it will become iconic and widespread like the Women’s Community Center’s “Of course I’m a feminist” stickers, and make sustainability a “cool” norm. While the signs were designed for freshmen dorms only, I hope that these stickers catch on all over campus!

Ultimately, the goal of this move-in messaging campaign is to set the foundation for freshmen to build their college lives around a core of sustainable values and practices, and to make sustainable behavior attractive and expected all around campus.

As a secondary project, I did a study of the effectiveness of “these come from trees” paper-towel dispenser stickers. I worked with Glen Cartwright in Stern to put these up in a few Stern bathrooms, and tracked the change in paper towel usage before and after the intervention. The result of the stickers was a shocking 25% decrease in paper towel usage, on average! These stickers are now up in FloMo as well. I am also pushing to get them put up in the rest of Stern and Wilbur as a part of the move-in sustainability messaging campaign.

**Project Status:**
The signs and stickers I designed this year need to be handed off to the R&DE graphic design team to be recreated digitally. Then, the signs and stickers need to be printed and put up in the dorms before move-in. Similarly, the sustainability information sheet and Cardinal Green Pledge need to be printed and put with the move-in materials, along with the commitment sticker. Extra copies of the commitment sticker need to be printed (with the pledge printed on the peel-away paper on the back) to be distributed around campus.

**Project Timeline:**
In October, I mainly worked with Kristen Parineh, Nicole Greenspan, and Olivia Reyes-Barrera (the other outreach intern) to figure out what our main outreach goals and plans for the year were. We brainstormed many ideas, and ultimately Olivia and I split up to work on separate projects. Also during this time, I was involved with the Sustainable Living Video project. I helped edit the script and look for potential production managers and actors.

In November, after deciding that I wanted to work on a project targeting freshmen at NSO, I met with Cassie Vergel, the ResEd program Associate in Stern. To ensure that my eventual project could actually be implemented, we discussed what parts of NSO and/or move-in could realistically be changed. Also in November, I met with Glen Cartwright, Building Manager in Stern, to discuss putting up paper-towel saving stickers.

In December, I looked for different types of sticker materials that were both environmentally friendly and easy to clean/remove. Eventually “these come from trees” stickers were approved for posting in Stern bathrooms.

In January, I came up with a proposal for my “Sustainable Move-in Experience” messaging campaign. Then, I came up with a list of focus group questions and conducted focus group sessions with freshmen in Stern.

In February, I finished the focus groups, and I compiled and analyzed the results. Also, paper towel usage pre-intervention data collection began in Stern. I met with Myles Coulter and Bobby Tillery, the
transitioning building managers in FloMo, to discuss the possibility of putting up stickers in FloMo as well.

In March, I began designing the signs/stickers for my messaging campaign. By the end of the month, I had some polished designs to present to the Office of Sustainability. I also wrote a sustainability information sheet and the Cardinal Green pledge to be distributed with the move-in materials. “These come from trees stickers” went up in Stern and post-intervention paper towel data collection was done.

In April, I worked with Bobby Tillery to get data before and after “these come from trees” stickers went up in FloMo as well. I continued to refine my move-in messaging designs, especially the commitment sticker.

In May, I redesigned some of the commitment sticker ideas. Then I surveyed students in Arrillaga dining hall during lunch and sent out e-mail surveys to get feedback. I analyzed the responses and tweaked the design. Also during May I worked on my poster and end of year materials.

Internship Time Commitment:

- [ ] 1-3 hrs/wk
- [ ] 3-8 hrs/wk
- [ ] 8+ hrs/wk

Measureable Outcomes:
- Conducted two focus group sessions in Stern Hall. 4 students participated in Donner; 11 students participated in Serra.
- Put up “these come from trees” paper-saving stickers in 3 buildings in Donner and all buildings in FloMo.
- “These come from trees” stickers resulted in a 25% decrease in paper towel usage in Stern. (Unfortunately, data was not collected reliably in FloMo.)
- Designed sustainable living reminders to be displayed in freshmen residences (Stern, Wilbur, and possibly FloMo) during move-in next year. They will be posted in bathrooms, dorm rooms, and at waste receptacles. (See images attached.)
- Wrote an information sheet to explain the importance of sustainability, as well as a Cardinal Green pledge. Both will be distributed to all freshmen with move-in materials.
- Designed an “I live Cardinal Green” commitment sticker to be distributed to freshmen and other students who sign the Cardinal Green pledge and build a campus norm around sustainable behavior.
- Surveyed people in-person (approx. 10 people) and via e-mail (total of 36 people; 19 random students from dorm and 17 from Students for a Sustainable Stanford) to receive feedback on the strength of message and design for each potential commitment sticker.

Project Highlights/Favorite Moments:
I am very passionate about the connections between environmentalism and social justice. Many people I have met at Stanford do not understand why sustainability matters for people, and I was very excited to have an opportunity to try to bridge that gap this year through my messaging campaign. While I initially wanted to incorporate social justice into the dorm signs/stickers, freshmen in the focus groups said that would be too much for people to take in all at once. For that reason, I decided to write a sustainability information sheet to be distributed with move-in materials, describing why sustainability
really matters. I really enjoyed being able to address that lack of knowledge, and I hope it will make a difference. I would love to get feedback about that next year, even though I will not officially be an intern.

Beyond that, I LOVED designing the stickers and signs! It was fun sketching out initial ideas and slogans, getting feedback, and letting them take shape over a period of time. It was also fun thinking about ways to incorporate ideas from the focus groups into my work – it forced me to get creative. I especially enjoyed working on the sustainability commitment sticker; it is something I've always thought Stanford should have... and soon it will! I can’t wait to see the digitized finished products, and hopefully see the commitment stickers all around campus next year!

**Project Challenges/Lessons Learned:**
The beginning of this year was challenging for me. As the “create-your-own” intern, I did not come in with a solid plan for what I was going to do. I had grand ideas of overhauling NSO and incorporating a greater emphasis on sustainability, but I gradually discovered that NSO was basically untouchable, and I was soon at a loss for what to do. I floated in between ideas for a while, but eventually settled on the move-in messaging campaign. Once I held the Stern focus groups and talked about this idea, it began to take shape and move from there.

Another challenge for me was having to navigate administrative bureaucracy. While I really didn’t have to deal with anything too complicated, I was frustrated that I could not simply go ahead with any project I wanted – instead, I needed approval. I was frustrated with this, in particular, when I wanted to change NSO: I felt like I was being passed from person to person, and no one could give me the permission or advice I was looking for. However, I think this was a valuable experience for me. I learned to write effective “ask” emails, be patient, and search for places where I could make a difference.

Finally, I learned a lot this year about being flexible and open to feedback, while also staying true to my vision. All of my ideas evolved over the course of the year, and I had to find the balance between listening to others and following my gut. I think the final products are better for it!