Sustainability in the Cal Greeks Community

Project Lead: Cole Triebold; Sierra Westhem

Sponsor: Engineers for a Sustainable World

TGIF Grant: \$5,500

Project Theme: Energy Efficiency and Conservation

Project Location: Delta Gamma Sorority House

2015 Application Submission

Status: In Progress

Project Description: The Sustainability in the Cal Greeks Community team will install water aerators, motion sensor light switches, and LED lighting in order to improve energy efficiency and decrease water consumption. After doing this, they will compare energy and water usage data in order to calculate the reduced costs due to the changes. Finally, they will hold sessions at each participating house and educate members of the Greek community about the project and the positive environmental changes that can be made.

Goals: Decrease energy usage in participating Greek houses. Decrease water use in participating houses. Raise awareness about products that have the potential to vastly decrease energy and water consumption that are also economically competitive. Educate houses on sustainable practices. Inspire change across the UC Berkeley campus with participating houses serving as an example.

Timeline:

| Task | Expected or Actual Completion Date |
|--|---|
| Begin project. Find wasteful practices prevalent in the UC Berkeley Greek community | November 2014 |
| Begin audits on houses | March 2015 |
| Begin Educational Outreach | April 2015 |
| Present our project at ESW National Conference | April 2015 |
| Research alternative methods of sustainable practices and check for reductions in prices of lighting, aerators, etc. | August 2015 |
| Receive first installment of TGIF funds. Begin purchasing materials and distribute them to houses. | November 2015 |

| Finish first house retrofit | End of November 2015 |
|--|-----------------------|
| Continue retrofitting houses until funds are expended | January/February 2015 |
| Begin teaching about project at the ESW Decal | January 2016 |
| Collect/ analyze energy and water consumption. Compare to previous statistics and calculate the amount of money, energy, and water saved. | January 2016 |
| Finish final research and show the Greek community the advantages of utilizing sustainable practices. Use remaining TGIF funds to create posters to give to involved houses. | February 2016 |
| Submit final project paper to TGIF | March 2016 |

Accomplishments:

Received full approval to retrofit houses

Audits being completed week prior to installation

Finished retrofitting Phi Gamma Delta Fraternity with lights, and project leaders hope to do water aerators soon Finished audit of Kappa Alpha Fraternity, and installation took place in January 2016.

Challenges:

Finalizing list of houses

Getting approval from home owners

Understanding method of purchasing materials

Different houses need different types of lights

Buying the materials and then getting reimbursed quickly enough to stay within the timeline

imeline Progress: Initial estimate of lights in each house was a bit conservative, and houses are in need of more ights than project leaders originally thought. Because of this, project will most likely end up retrofitting more louses than originally planned. So far, project has finished 1 house.

| Task | Timeframe (how long it will take to complete) | Status |
|--|--|-------------|
| Begin project. Find wasteful practices prevalent in the UC Berkeley Greek community | 1 month | Completed |
| Initial audits on houses **Audits are now going on approximately 1 week prior to retrofitting houses | 2 months | In Progress |
| Educational Outreach | Continuous | In Progress |
| Present our project at ESW National Conference | 1 weekend | Completed |
| Research alternative methods of sustainable practices and check for reductions in prices of lighting, aerators, etc. | 1 month | Completed |
| Receive first installment of TGIF funds. Begin purchasing materials and distribute them to houses. | 2 weeks | In Progress |
| | | |

| Begin teaching about project at the ESW Decal *Decal was not funded and will not be created this year, instead we will be giving a presentation in one of our general body meetings this fall | N/A | Cancelled |
|---|---------|--|
| Collect/ analyze energy and water consumption. Compare to previous statistics and calculate the amount of money, energy, and water saved. | 2 Weeks | Planned for January 2016 Will most likely be delayed until March |
| Finish final research and show the Greek community the advantages of utilizing sustainable practices. Use remaining TGIF funds to create posters to give to involved houses. | 2 Weeks | Planned for February 2016 Most likely delayed until March |
| Submit final project paper to TGIF | 2 weeks | Planned for March 2016 Most likely delayed until April |

Budget Update/Expenditures to Date:

No expenditures as of yet

Motion sensors will require a professional to install, but project is currently under budget so hiring a professional is feasible.

Metrics- Qualitative and/or Quantitative:

Successful poster presentation at ESW National Conference in Rochester, NY

Phi Gamma Delta (Fiji) Fraternity has 105 lights installed with more to be placed in rooms that were locked. Final numbers will be counted then. Audit of Kappa Alpha (KA) Fraternity has finished and project plans on installing 154 lights in KA. Also, project counted 6 shower heads that can be replaced for KA, and 9 water aerators for sinks.

Delta Gamma (Sorority Audit):

Downstairs Bathroom:

• 2 CFL

Gnome Hall:

- 3 CFL
- 1 Incandescent

Chapter Room:

- 19 Ceiling light (Not sure what type of light)
- 3 CFL Light Lamps

"Little Girl's Kitchen":

- 4 CFL
- 2 Incandescent

Upstairs:

• 9 CRI (Don't know what it is but I think it's efficient

Bathroom:

• 23

Each Bedroom:

- 2 Incandescent (1 Per Roommate)
- 1 CFL Per Closet
- 1 mercury light- 26-40 total (efficient)

Kitchen:

- 4 CFLs (6 chandeliers)
- 2 CFLs (2 Chandeliers)
- 1 Chandelier had a light missing

Downstairs

- 8 CFLs
- 23 Incandescent
- 1 CFL lamp

Date room:

- 12 Halogen lamps
- 2 CFLs
- 1 incandescent

Education and Outreach materials:

Project will begin working on posters and presentations after they're finished retrofitting the houses. ESW poster presentation raised awareness of project. Primary outreach begins once data has been collected.



Sustainability in the UC Berkeley Greek Community Project Leaders: Cole Triebold and Sierra Westhem

Team Members: Jennifer Kirby, Lucas Filshill, and Julia Sawaya

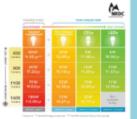


Background Information

gaining a hands-on understanding of ener-yg and water conservation. We believe that small changes could make a huge im-pact on the Greek system's pattern of en-ergylwavier consumption and waste. As an innegral part of our school, the Greek com-munity influences many students and has the potential to inspire widespread sus-tainable practices across campus.



The first step of the project was to audit each house in order to distinguish the areas that require the most improvement. Our auditing process included collecting data concerning the appliances, lighting, water use, and insulation within each house. We discovered that the most pressing issues were overconsumption of water and inefficient use of lighting, Our first goal is to implement motion sensors in the halls and large common rooms, as these are often the rooms that require the greatest amount of lighting and that have the most energy









The Green Initiative Fund

Outreach

posters around the house with info