

1594 Esmeralda Avenue Minden, Nevada 89423

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Agency Name: Zephyr Cove Elementary School Parents Club

Contact: Jessica Schnoll Title: President

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Project Name: ZCES Food Composting

Program

Grant Funding Amount: \$5,000.00

Project Completion Date: Pilot program ended June 9, 2022 (composting is still on-going!)

#### Describe how the funds were used to serve Douglas County residents.

When the ZCES Food Composting project began, there were no options available within Douglas County for local Tahoe Township residents to compost their food waste. Initially the composting pilot program was open to only staff and families of students at Zephyr Cove Elementary School and Whittell High School. The project has since expanded to include additional Douglas County community members. The program also laid important framework for South Tahoe Refuse regarding the future of residential composting programs. This project has shown that local composting is possible, and the demand is present and growing. We are proud of the results from the 12-week pilot program and are excited for the future!

Describe how the organization measured the success of the program/project. Provide qualitative and quantitative measures.

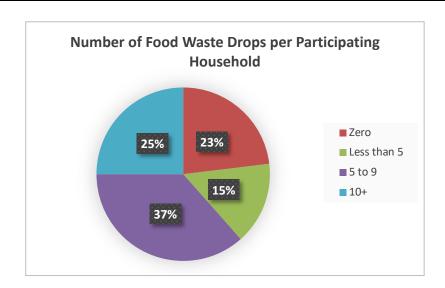
To measure the success of the composting portion of the program, volunteers tracked several data variables including: 1) the number of participants, 2) how many times they dropped off their food waste, 3) and the weight of their weekly food waste.

In total, 52 households signed-up for the program. This was 87% of our initial sign-up goal of 60. We provided each of the participating households an identical bucket with sealing lid so we could easily weigh the buckets with no variation.

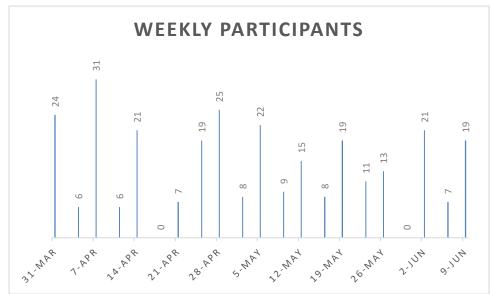
Of the 52 households we had a 77% participation rate. We offered food waste drop-off 2 times per week; on Mondays from 3pm to 4pm and Thursdays from 7am to 9am. Between March 31 and June 9, 2022, we collected food waste a total of 19 days. 62% of our participants dropped of food waste at least 5 times or more. This shows that most households were dropping off waste weekly or every other week. This finding was likely due to the household size as larger families needed to drop food off weekly and others waited until their bucket was full.



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Thursday mornings consistently had the most people participating each week. There was an average of 20 households participating on Thursday as compared to only 9 households on Mondays.



Note: Food waste was not collected on Mon. 4/18 during spring break or Mon. 5/30 on Memorial Day.

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We collected a grand total just over 3,500lbs of food waste during the 12-week program, with an average collection of 322lbs per week.

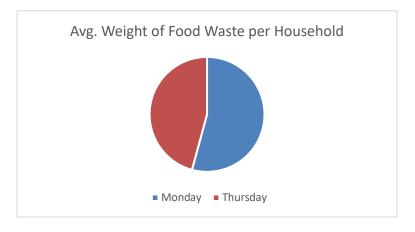


Notes: Week 1 was prep week with passing out buckets to participants and did not include a food waste drop.

Week 2 only included one drop day (Thursday 3/31) as the official start date of collection.

Week 5 was low because of Spring Break and only having 1 drop off date. Many families traveled during this time which resulted in an increase of food waste during week 6 as people returned to school.

Interestingly, we found that the overall weekly average weight of food waste was slightly greater on Mondays at 13.92lbs compared to Thursdays with an average of 11.75lbs.



In total, 3,500lbs of food waste was diverted from the landfill to a proper composting facility. This resulted in a reduction of approximately 290lbs of methane gas production, positively benefiting the environment of our community.



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Our most exciting result, and a direct result of the amount of dedication and due diligence all the participants and volunteers put in, is that we had zero contamination! Contamination includes anything that is not food waste such as paper, plastic, coffee filters, etc. Possible contamination was reviewed by South Tahoe Refuse weekly during the food waste pick-up. If a bin were to be contaminated, the program would have been charged a standard disposal fee and the entire bin would have been rerouted to the general dump instead of to compost. Since we did not have a single contaminated bin, we had extra money left over which allowed us to pre-pay South Tahoe Refuse for bin servicing through the remainder of the year! To date, we still have not had a contaminated bin.

This was an overwhelmingly successful project. With 62% of all registered participants regularly participating 5+ times, our successful zero contamination rate, and the remaining amount of our project budget, we decided to continue the program throughout the remainder of 2022. The program will continue with collection on Thursday mornings only throughout the remainder of the year.

The other half of this project includes our gardening program. ZCES is a STEAM-based education program, and over the past few years has been increasing its curriculum about sustainability. In the fall of 2019, Grow Domes were built, and during the past 2 years, a handful of classes have been learning about hydroponics and growing plants which are then transferred to the Grow Domes. With this project grant, we were able to purchase much needed supplies for the Grow Domes including solar fans to help cool the domes in the summer, outdoor classroom supplies including portable white boards and clipboards, plus a raised 8'x3'x2' flower bed to expand the outdoor growing area. A garden shed was also purchased to store garden supplies and tools, extra soil, and outdoor classroom items. With school back in session, we look forward to the teachers being able to utilize all the new items for their classes.

Provide any changes or challenges to the original project plan and how it affected the project.

One of the biggest challenges we have faced has been recruiting volunteers. We must keep the bin locked outside of our food waste drop time not only due to bear activity in the area, but for illegal dumping. We have found trash bags left on top of the bin several times despite "FOOD ONLY" very clearly printed on the bin. As a result, the collection bin must be staffed to ensure there are no contaminants or trash being added. Recruiting volunteers has been a challenge, and we are looking at ways to shorten the hours needed or to split shifts in order to appeal to more people. We have had the same dedicated small group of volunteers during the pilot program volunteering their time, but for the compost program to be sustainable long-term, we will need additional volunteer help.



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For many reasons, the end of the school year has significant time constraints. This resulted in challenges getting the garden program off the ground last spring. As a result, we decided to delay implementing the items until the 22-23 school year. This will allow staff and volunteers more time to plan and utilize the new supplies.

Finally, the program made the decision to reallocate some of the composting funds in order to obtain a sturdier shed for the garden component. The quality of the shed needed to hold up against Tahoe weather elements and provide a *safe/secure* storage space located adjacent to a playground, which increased cost. Because of our zero-contamination rate, we remained under budget and were able to purchase a quality shed.

Thanks to a generous donation from Full Circle Compost, we were provided with 25 bags of their incredible soil for our raised garden beds and to amend the current soil in the Grow Domes.