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Food Waste at La Isla Pacifica Shelter

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#### Author Note

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## **Abstract**

Community Solutions is a non-profit organization that serves the community of South Santa Clara and San Benito Counties. At La Isla, Community Solutions' safe house, a new program was implemented, which focused on reducing waste. Food waste is an issue at La Isla, because a lot of food expires before it is used. The program focused on three key factors to reduce waste, including: creating and implementing a new inventory system, educational cooking classes and the creation of a recipe book in English and Spanish. The classes provided life skills such as cooking, nutritional information and awareness of the amount of waste created. The inventory system focused on eliminating waste produced by over ordering. The recipe book provided cooking opportunities outside of the cooking classes for current and future clients. Through the dedication and work of the La Isla staff and intern(s), the new program reduced the overall waste at La Isla. Recommendations to ensure the success of the program would be to implement training for the staff members at the shelter for: the inventory system and cooking classes.

*Keywords:* waste reduction, inventory system, Community Solutions, recipe book, educational classes.

## **Agency & Communities Served**

Community Solutions, is a non-profit agency founded as a teen drop in-center in 1972. Its legal name is Community Solutions for Children, Families, and Individuals (Community Solutions, 2019). Community Solutions mission, “is to create opportunities for positive change by promoting and supporting the full potential of individuals, the strengths of families, and the well-being of our community” (Community Solutions, 2019). Community Solutions provides a comprehensive spectrum of prevention, intervention, treatment, and residential services to the communities of Santa Clara and San Benito Counties. Community Solutions provides services and support to help children, families, and individuals overcome challenges, such as mental health issues, substance abuse, trauma, severe family dysfunction, sexual and domestic violence, and human trafficking (Community Solutions, 2019). The Solutions to Violence program provides empowerment-based services to strengthen and support survivors of domestic violence, intimate partner abuse, sexual assault, and human trafficking crimes. They also provide education and prevention services on these issues for schools, groups, and the community. Community Solutions serves children, youth, adults, and elderly adults.

Since opening in 1978, their La Isla Pacifica shelter has provided a safe and confidential refuge for more than 5,500 women and children survivors of human trafficking and domestic violence (Community Solutions, 2019). Furthermore, they provide culturally-competent, strengths-based services for wellness and recovery. La Isla Pacifica Confidential Shelter, also supports survivors in regaining strength, hope, and control in their lives. This is a voluntary program, and all services provided are confidential and there are no fees to participate (Community Solutions, 2019).

## **Problem Description**

The waste of food at La Isla Pacifica Confidential Shelter is too high. According to United States Environmental Protection Agency (EPA) it is estimated that in 2015 in the United States, more food reached landfills and combustion facilities than any other single material in our everyday trash, at 22 percent of the amount landfilled and at 22 percent of the amount combusted with energy recovery (EPA, 2019). “At this moment, in the United States, about 40 percent of food goes uneaten translating into more than 20 pounds of food per person each month” (Arizona Department of Environmental Quality (ADEQ)2016).

### **Contributing Factors**

There are many contributing factors that lead to the prevalence of waste of food at La Isla Pacifica Confidential Shelter. One clearly identified factor is that there is no inventory of food sustained by the staff at the shelter. If La Isla staff were to implement an inventory system by tracking the foods in the pantry and in the refrigerator it will help reduce the amount of food being wasted. According to the Arizona Department of Environmental Quality (ADEQ, 2016), by checking the refrigerator and pantry before writing a grocery list and rotating the food in the pantry and refrigerator to reduce the amount of food that expire will make a huge difference eliminating food.

Another contributing factor is that there are no recipes in place for the women living at the shelter. Even the EPA, suggest doing an inventory and accounting for left- overs before putting together a shopping list will help reduce waste.

The lack of cooking knowledge at the shelter is another contributing factor to the waste of food being so high. By offering cooking classes to the women at the shelter using the food stored in the pantry and refrigerator will help prevent food in the pantry from expiring. In offering cooking classes it will encourage them to continue to cook healthy meals when they

leave the shelter rather than going to fast food chain restaurants. By cooking food themselves women can become aware of both the amount of packaging that ready meals use, unnecessarily as well as the issue of keeping foods for the right amount of time and the need to not throw any food away (Miller, 2016). Over ordering of certain items is another contributing factor of the waste of food at the shelter. Since no inventory list is maintained La Isla staff has no way of tracking what items are needed and not needed. This creates over ordering on basic items such as cereal, peanut butter, pasta, rice, and beans. The excess purchases of ordering can lead to items being stored in the pantry and refrigerator passing their expiration dates and therefore ends up as wasted food.

### **Consequences**

Clear consequences that come from the waste of food at La Isla Pacifica Confidential Shelter, is the waste in landfill increases. Food waste is an environmental, economic, and ethical conundrum that leads not only to the loss of the caloric intake but also to the needless destruction of finite resources (Payne, 2014). According to the U.S Environmental Protection Agency, landfills account for 34 percent of all methane emissions in the U.S. - meaning that the sandwich you made and then didn't eat yesterday is increasing your personal- and our collective- carbon footprint (Scientific American, n.d.).

This also creates unsanitary conditions in the refrigerator and pantry at the shelter. Many of the items in the pantry are ordered in bulk and are kept in boxes which can attract many rodents. Food should be stored in a clean, dry, sanitary containers that are airtight if possible. This will help keep food for longer and reduce the risk of contamination. Food should also be stored off the floor when possible in order to help prevent against pests and other contamination (Santacruz, 2016). Food which is not correctly stored can spoil or become contaminated, which

can then lead to making people sick. There are very specific rules regarding the temperatures that food must be stored at, cooked and reheated to and if not followed, the risk of becoming ill as a result of contamination increases (Santacruz, 2016).

### **Problem Model**

<b>Contributing Factors</b>	<b>Problem</b>	<b>Consequences</b>
Factor 1: No inventory of food	The waste of food at La Isla Shelter is too high	Consequence 1: The waste in landfill increases
Factor 2: No recipes		Consequence 2: Unsanitary conditions in the fridge and pantry
Factor 3: No cooking classes provided		

### **Project Purpose**

No food inventory has been kept at La Isla shelter. La Isla staff whom used to oversee ordering the supplies shared that even though the pantry is unsanitary, no one had made the time to attempt to clean and organize the pantry. The interns project addressed the goal of reducing not only the waste at the shelter but also the clients/children. The interns created the spreadsheet that allowed the food at the shelter to be monitored by the staff. The weekly cooking classes created the recipe book to encourage the women at the shelter to cook using all the food items in the pantry.

### **Project Justification**

The US Department of Agriculture (USDA) reports more than 40 billion pounds of postharvest loss of produce, estimated at more than \$50 billion each year (2019).

By implementing weekly inventory on the items stored in the pantry and providing cooking

classes, it will make the food more accessible before it expires. Because the CDC food service guidelines confirms providing information on food preparation and storage techniques, menu planning, healthy recipes, healthy grocery shopping, and label reading will address food waste and improve dietary habits (Centers for Disease Control and Prevention, 2017). The classes being provided and the creation of the cookbook will give the clients the incentive to want to learn to cook. It will also help improve the quality of life, educate and reduce waste.

### **Project Implementation**

For the project, the participants include interns, Community Solutions Director, house manager, La Isla relief staff and the clients whom are at the shelter. The interns role will include doing weekly inventory of the pantry and putting it into an excel, going every Wednesday to assist ordering supplies at the shelter, and cooking every Sunday. Each week, interns will add the recipe into the binder making it available for all residents and staff. Interns along with house manager will maintain the pantry organized by taking out all items from boxes and hopefully into clear food storage containers. The women at the shelters only role, is to help cook each week and to encourage others to follow.

The resources needed for this project include; basic office supplies such as clear sheet protectors to place the weekly recipes in, a large binder to be used to place the weekly recipes for easy access, a pack of dividers for the binder to separate chicken, pork, steak, pasta, and vegetarian meals for easy access, and of course two sets of clear pantry food containers with lids to eliminate food being unsanitary and will help with the rodent issue. Lastly, this project will need the support from La Isla staff, program director to approve and make sure this problem model is maintained once it is completed.



Every week interns will host a weekly cooking class at the shelter for all women using only items stored in the pantry and refrigerator to encourage them to use all the food that is not being used and is being wasted. Activities include creating flyers along with a sign-up sheet so that everyone can participate in the cooking class. The goal is to work twice a week during the summer at the shelter. The first day interns will check what foods are available in the refrigerator and pantry for the class and post the flyer along with the sign-up sheet. Sundays will be only for cooking and clean up. Hopefully, by the end of the summer the project plan will help end so much food from being wasted at the shelter and implement other Community Solutions shelters to follow. A detailed implementation plan and timeline can be seen in the Scope of Work in Appendix A.

### **Expected Outcomes**

The project, if anything, will implement an inventory that will be utilized weekly at the Isla Shelter before ordering items to end over ordering of certain food items. The cooking classes will educate the clients on making smart food choices and preparing meals for themselves and their children. Furthermore, the cooking classes provided a recipe book so the clients can use the food, and reduce waste. By organizing the pantry and surrounding areas free of loose crumbs will prevent the presence of rodents at the shelter. This project can also be continued by the shelter staff once the interns complete their internship.

### **Project Findings/Results**

With the help of interns being involved with the weekly food bank process, not only did it help improve the sanitary conditions of the pantry, but it also enhanced the organization. This

was carried out by organizing both the pantry before and after the food bank pick up. By cleaning out all refrigerators, clients had fresh food, fruits, and vegetables. The concern that occurred frequently, was that interns were unable to go to the food bank Wednesday mornings. Since interns were not allowed to drive to the food bank they relied on the staff to take them. This was the most challenging part, due to staff schedules being changed at the last minute and not communicated to the interns. The food bank closed at noon, so it was important to be there no later than 10am, this became a major barrier that continued throughout the project.

The creation and implementation of the inventory system, not only allowed for intern(s) to keep track of the inventory but it also improved the conditions of the refrigerators and pantry. Before this project, the shelter had no inventory in place so over ordering was a major issue. This helped make the pantry more accessible to food. The overall goal of the inventory system was to make ordering more efficient by the staff. Unfortunately, this goal has not been achieved due to staff failed to use the spreadsheet. Even though the interns were updating it weekly and despite the document being emailed to all shelter staff it was only being used by the interns. The lack of buy in with the shelter staff impacts the longevity of the program. Recently, it was suggested that interns make the spreadsheet more condensed. In speaking with the mentor, adjustments were made to the spreadsheet in order to make it easier for staff to use. Hopefully, staff will take the initiative to see the importance of eliminating waste by maintaining an inventory spreadsheet.

The organization and cleaning of the pantry, and the refrigerators at the shelter has been achieved with the help of clients, staff and interns. Before this project, the clients did not have any chores assigned to them, which made the shelter cluttered and unsanitary. Each week, the clients are assigned a chore, and, with the help of staff, is being monitored. In fact, interns implemented a “voucher” to be given by staff to client’s for each time the client participates in a

cooking class, they are rewarded by a no chore day voucher. The pantry, is now much more organized than before the project began. Clients needlessly, throw away products each week that still can be safely used. To help combat waste, intern(s) also created documents and placed on the refrigerator showing expiration dates to avoid any confusing when it comes to expirations. A major barrier was not having the storage containers to properly store food. Unfortunately, not having the proper storage containers, is still a major problem to food being exposed to rodents, and spoiling faster. The storage containers were supposed to have been ordered before we implemented the cleaning and organizing the pantry. As of now, we don't think that order ever took place. So by creating the voucher for the clients, helped overlook the lack of supplies not being ordered and implement a schedule that can allow the clients to maintain a clean environment.

By the end of the project, the recipe book consisted of twenty five recipes in English and Spanish that were put together by the interns for the cooking classes. The recipe book included a wide variety of categories such as vegetarian, meat, etc. Unfortunately, the outcome of the recipe book that has not been met is the assembly of the binder. That outcome was due, to the supplies not being provided by the mentor. Secondly, the recipe book, was supposed to be placed inside clear sheets and put in a binder with tabs that will make it easier for clients to have access too. Furthermore, supplies that were requested in May 2019 included binders, tabs, clear sleeves, dividers, cardstocks were just a few items that were needed to complete the recipe book. Currently, all 25 recipes are on a Google document that is not accessible to the clients at the shelter. Another outcome that was not met was the attendance in Sunday's cooking class. To help increase attendance in the cooking classes flyers were posted along with class agenda to

ensure class participation but even with the class sign-ups many of the clients were no shows or clients would only come once the food had been cooked.

In the end, the project that began in the summer 21 weeks ago did help cutback the food waste at La Isla Shelter. Hopefully, with the continuation of the interns, more staff involvement the shelter can continue to increase the waste of food items. Appendix E, shows data starting from March, 2019 to June, 2019 shows how much food was wasted for 21 weeks at the shelter. Before June, interns were cleaning and organizing refrigerators and pantry weekly. By the middle of June, staff implemented a firmer chore list every Sunday for the clients and was being monitored and posted weekly by staff. Appendix E, does not show what if any items were thrown out by staff or clients, rather appendix E only shows what the interns threw out each week.

### **Conclusion and recommendations**

The reality is that there may not be sufficient will at the shelter to continue the project beyond this semester. For a nonprofit agency it's essential that everyone is on board with the overall mission and has a clear vision of how to achieve it. For this project to continue, it will require a designated staff to take the initiative to train relief staff and incoming interns on the spreadsheet to ensure it is reviewed and updated weekly before the ordering takes place from the Food Bank. Furthermore, in order for this project to survive it would also require oversight by the shelter director instead of a manager whose duties are outside the shelter, as is the present case. One thing that I would recommend is educating the staff on the importance of keeping the refrigerators cleaned and making sure all the meats are properly stored and checking the labels to ensure they are still edible. I would also include educating the clients, so that they are also aware of the dangers of not properly storing food. Often, clients would just place the actual pot with the

food inside the refrigerator. Even though signs were in place not to do that it was never enforced. Recommendations include the shelter director, and mentor to have a better communication among shelter staff. This would help establish a better working environment between staff, managers, directors, and interns.

### **Personal reflection/final thoughts**

This project made me realize that there are a significant number of people that do not have access to adequate healthy food on a daily basis. This makes throwing huge amounts of edible food seem shameful. When my partner and I first began working on the project, we were in disbelief at the prospect of having to toss out 18 unopened milk cartons. Our first thought was that these are 18 milk cartons that could of been given to other families, shelters, and people who do not have the funds to purchase milk on a weekly basis. When I asked the staff why these milk cartons were not used, their response was they had over- ordered milk and were not aware that they had some already. Clearly, no ordering system was in place so staff would just order boxes of foods; milk cartons, eggs, rice, breads etc. without checking the four refrigerators or pantry to ensure what items were actually needed.

When I saw how unorganized the pantry was, it was nothing I've ever seen before. Nothing was in order, cereal boxes were left open, cans were scattered in different locations, and of course the rodent traps were visible. It was obvious that we needed to get the pantry organized, which required ordering clear food bins to ensure all foods are clearly visible to all clients. Second, we had to implement a spreadsheet that would allow the staff to keep track of what food, meats, vegetables, eggs and household items were actually needed to prevent over-ordering. Thirdly, my partner and I noticed that many of the clients lacked cooking skills, so we

wanted to introduce cooking classes using all meats, and items from the pantry to eliminate the food from being tossed in the garbage.

Our project design, activities, and successes were that we were able to clean up the pantry and organized it so all food cans were in one section, all pastas, cereals, and rice in another. Arranging them in this order made them all visible and easily accessible to the clients. Creating the spreadsheet was a very useful tool when it came to the food bank. It helped not only the interns, but we were able to inform the staff of what the shelter needed and did not need. In the process of introducing cooking classes we developed recipes based on the available food. The project demonstrably reduced food wastage.

One challenge was that the spreadsheet was only being updated by the interns. Staff were not taking the initiative to review and update it. The other challenge was the cooking classes had low attendance due to clients were not physically home on the designated cooking days. The pantry, even though was organized the interns never received the supplies that were supposed to have been ordered to ensure all food were properly stored in containers. Furthermore, the lack of communication between mentor, and staff made the project more challenging. Intern's felt as though they were overlooked and treated unprofessional. Once, the interns had the professors intervene, the mentor's attitude did improve.

The broader health issue is that if the shelter does not take eliminating waste serious, tossing out edible food doesn't just mean one less meal for someone, but it also means that the time, and money that is spent to grow and produce is being discarded. If food is not stored properly, it can grow harmful bacteria that can make a client or child become sick.

I would advise future capstone students at the shelter to always keep the communication open between staff, director, and mentor. I was often confused about the structure, and how many people had to get involved for simple things such as ordering supplies, or basic shelter needs. Emails had to be sent numerous times to different staff because no one wanted to share the cost of their department budget. I would also recommend incoming interns at the shelter, to have an introduction meeting between all staff at the shelter so that they can build a professional relationship. Often, many staff would question who we were and what we were actually doing. Lastly, not to be afraid to speak up! Go to your instructors/mentor for clarification on what is expected from you and them, it will save you the stress down the road.

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## Appendix A

<b>CLASS LOGISTICS</b>				
<b>TASK</b>	<b>START BY</b>	<b>FINISH BY</b>	<b>ASSIGNED TO</b>	<b>COMMENTS</b>
Write and edit class plan	March 29th, 2019	August 14th	Alex & Yesenia	
Develop weekly recipes	April 5th, 2019	August 14th	Alex & Yesenia	
Create flyer	April 3rd, 2019	August 14th	Alex & Yesenia	Rotating weekly
Flyer posting and sign up sheet	April 5th, 2019	August 14th	Yesenia	
Gather food supplies for meal	April 5th, 2019	August 14th	Yesenia	Physically take out meat, set aside for Sunday
Class sign in book for Osnium	April 7th, 2019	August 18th	Alex	
Establish meeting time/venue for class.	April 3rd, 2019	Approved and set for ongoing classes	Alex & Yesenia	Erica and Aida approved Sundays 11am-2pm
extra supplies	As needed	As needed	Alex & Yesenia	Send request to Alyssa on Wednesdays
Data tracking April	April 14th	August 14th	Alex	

## Appendix B

	<b>Recipe Binder</b>			
<b>TASK</b>	<b>START BY</b>	<b>FINISH BY</b>	<b>ASSIGNED TO</b>	<b>COMMENTS</b>
Print Recipe	April	August 14th	Alex & Yesenia	Alternate weekly
Adjust recipe based on inventory	April 5th, 2019	August 14th	Alex & Yesenia	
Translate recipe(s)	April 12th, 2019	October 4th	Yesenia	
Take picture(s) of final prepared meal	April 7th , 2019	August 18th	Yesenia	
Supply request	April 12th, 2019	August 16th	Erica & Alyssa	Email sent by Alex
Organize recipes in binder	September 20th,	November 3rd	Alex & Yesenia	
Layout of recipes	September 20th	November 3rd	Alex and Yesenia	

### Appendix C

		<b>Pantry/Inventory Logistics</b>		
Develop list of food	April 5th, 2019	April 12th, 2019	Alex & Yesenia	Inventory sheet stored on Google Drive
Develop organization system	April 5th, 2019	November 3rd	Alex & Yesenia	NO supplies
Request supplies	April 12th, 2019	Requested	Erica & Alyssa	Email sent by Alex waiting approval and purchase
Tracking Sheets	April 7th, 2019	August 23rd	Alex	Created April 7th implemented April 12th.
Create flyer for label dates	April 12th, 2019	April 14th, 2019	Yesenia	
Create flyer for best by, sell by etc.	April 12th, 2019	April 14th, 2019	Yesenia	
Data tracking- waste	March 15th, 2019	August 21st	Alex & Yesenia	Track how much we throw out of spoiled food and store in Google Drive.
Food bank	April 17th, 2019	August 14th	Alex	Be more involved in ordering/pick up
Feedback for tracking sheet	April 28th, 2019	August 21st	Alex & Yesenia	adjust slips

Appendix D

# Label Dates

Expiration of “Use By” date: Last day the product should be eaten or used for assured quality. Phrase most often used: “ Do not use after (DATE)”. Includes baby formula and baby foods.

Freshness or “Sell by” date: Last recommended date of sale that allows ample home storage time. Phrase most often used: “Sell by (DATE)”. Includes milk, yogurt, and eggs.

“Best if Used By” date: Date after which a product is not likely to be a peak quality or flavor. Includes prepared packaged foods, Rice/Soy Dream, and most dry goods.

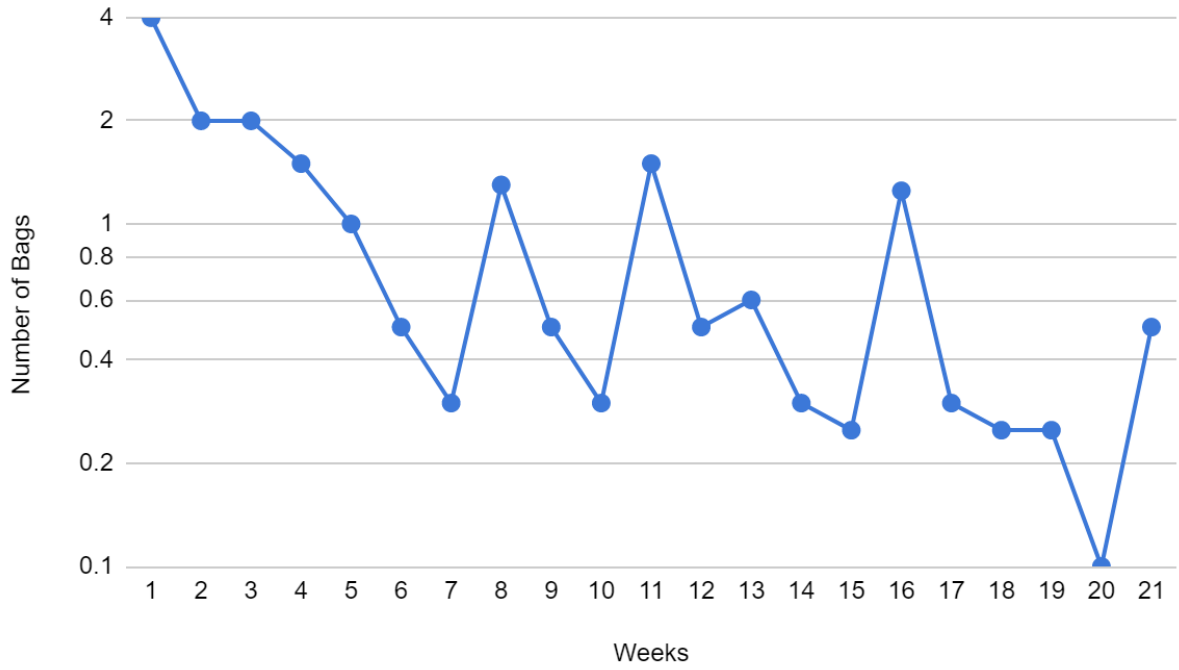
## Interpreting Dates - When to Discard:

Milk*	4 - 7 days past stamped date
Yogurt*	7 -10 days past stamped date
Soft Cheeses* (cottage, cream, ricotta)	1 week past stamped date
Hard Cheeses* (cheddar, jack)	3 - 4 weeks past stamped date
Luncheon Meat*	4 - 7 days unopened, 3-5 days if opened
Powdered Milk*	6 months past date if refrigerated unopened
Eggs*	2 - 3 weeks past date
• All refrigerated products must be kept at 40F or colder <u>at all times</u>	
Dry Cereal	6 months past date if unopened
Food in jars (unopened)	12 months past date
Canned goods (unopened)	
Acidic: e.g., tomato products)	12 months (no bulging or rust)
Non-acidic: (e.g., vegetables, soups	2 - 3 years
Bread products	7 days after the date if refrigerated, or At first sign of mold
Rice/Pasta (dry)	1 year after receiving

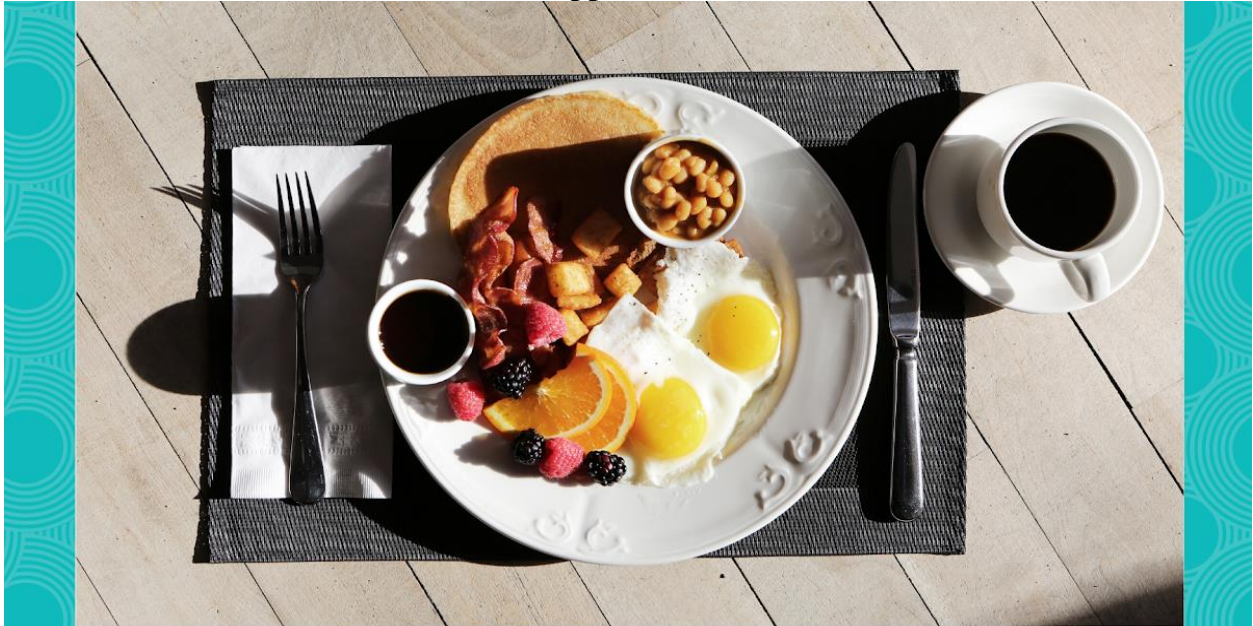
For more information, please contact the nutritionist at the Second Harvest Food Bank.  
(408) 266-886

## Appendix E

### Food Thrown Out



Appendix F



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Alex & Yesenia's  
**BRUNCH**

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SUNDAY, MAY 26 | 11AM-2PM

PLEASE JOIN OUR COOKING CLASS!

CAFÉ

*La Isla*

