

## USFS Greening Fires Initiative PARK WILDFIRE WASTE DIVERSION REPORT

PREPARED BY SOPHIA NIELSEN, MOLLY MCGEE & KELSEY BRIXON WEGENERATIVE LLC WEGENERATIVE@GMAIL.COM 503.883.1353



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WeGenerative LLC Sophia Nielsen wegenerative@gmail.com admin@wegenerative.com 503.883.1353

## INCIDENT INFORMATION

### **Dates of service**

Mobilized 8/30/24 Arrived 8/31/24 Demobilized 9/18/24 Report Sent 11/20/24

### **Incident General Information**

Park Fire Ordered by Butte Emergency Command Center Chester ICP Location: Chester, CA Northern California GACC

**Native land** of the following tribes\*: Yana, Cayuse, Umatilla and Walla Walla, Mountain Maidu

### Management SW Team 2, NIMO Team 3

### Personnel

Maximum: 1514; Minimum: 142; Average: 548 Headcount data taken from Situation Report

\*This was determined by overlaying the Incident Fire Map from InciWeb with data from Native-Land.ca to identify the native lands affected by the Park Fire.



WeGenerative is pleased to present the Waste Diversion Report for the Park Wildfire. During our 19 days on the incident implementing waste reduction operations at the ICP, we achieved a significant 42.3% diversion rate by weight overall.

Our approach prioritized community engagement and collaboration. We successfully partnered with local recyclers, farmers, composters, food banks, and on-site personnel, emphasizing the importance of mutual support and positive relations within our team. WeGenerative firmly believes that our team is our most valuable resource, and our focus on positive team morale is instrumental in the success of our operations.

The detailed waste diversion data illustrates our dedication to accurate measurements and calculations. We meticulously weighed and measured materials, deriving diversion data from verified, weighed loads. Noteworthy is our commitment to food donation, contributing to over 11,553 lbs of food scraps benefiting multiple local pig farmers compost facilities, and 1,168 lbs of edible food to the local food bank. Additionally, we monetized recyclables to donate proceeds to the Emily Jane Wilbanks Memorial Scholarship Fund, furthering our commitment to community support.

WeGenerative is grateful for the opportunity to contribute positively to the local community, turning would-be waste into valuable resources and promoting environmental stewardship. Our dedication to waste diversion extends beyond statistics; it represents a commitment to a more sustainable and responsible future.

# OUR TEAM

Our team included (listed in order pictured) Sophia Nielsen, Kelsey Brixon, Josh "Yoshi" Graveline, Sadie McGee, Molly McGee, Noma Chacon, Alina Stuckey, Caitlin Lawson











## **DIVERSION SUMMARY**

Diversion

42.3%

42.3%

We diverted by weight overall.

Landfill 27,088.5 lbs

Total diversion: **19,863.28 lbs** 

The pie chart to the right shows diverted (blue) vs wasted materials, (grey) by percentage of weight.

Willow and Yoshi donating Park fire food scraps to Ken's Worm Farm. 9/16/24.

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Landfill 57.7%

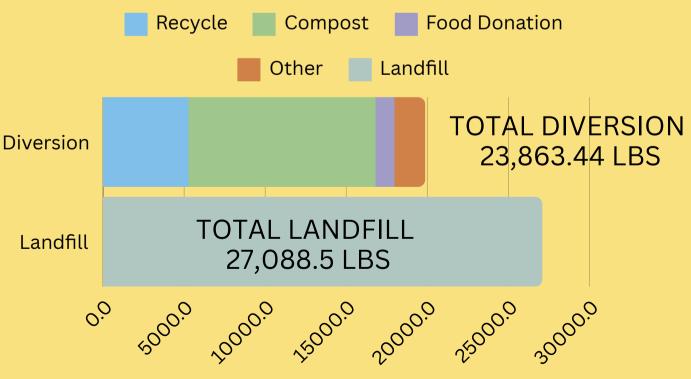
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## **DIVERSION DATA**



The bar chart below shows the diverted materials as compared to the landfilled materials. Both are measured by weight, in pounds. Combined recycled materials made up the greatest weight overall of all diverted materials when considering each diverted stream: recycling, organics, food donation, and special/other materials.

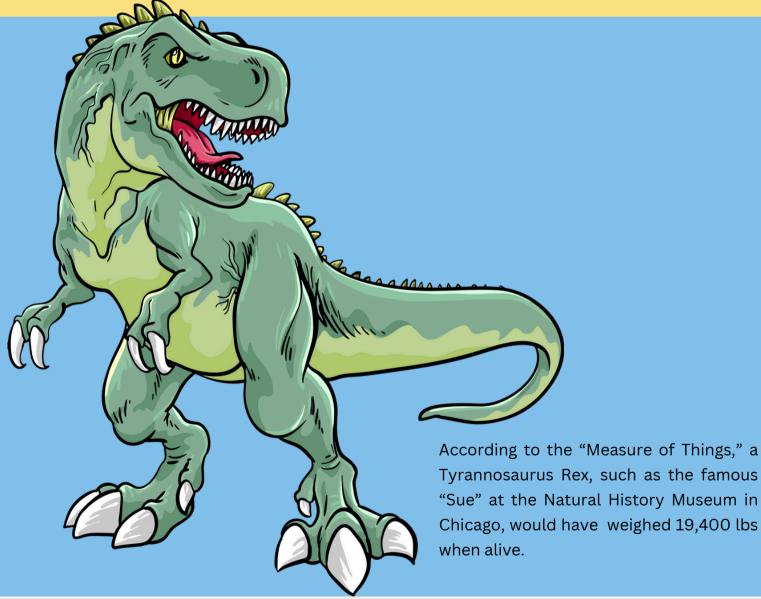
Recycle includes cardboard, paper, plastic bottles, metal cans, scrap metal, and glass.



# PICTURE THE IMPACT

It's difficult to imagine what **19,863.3 lbs** of total diversion looks like. Instead, picture this:

## We saved 1 T-Rex from landfill



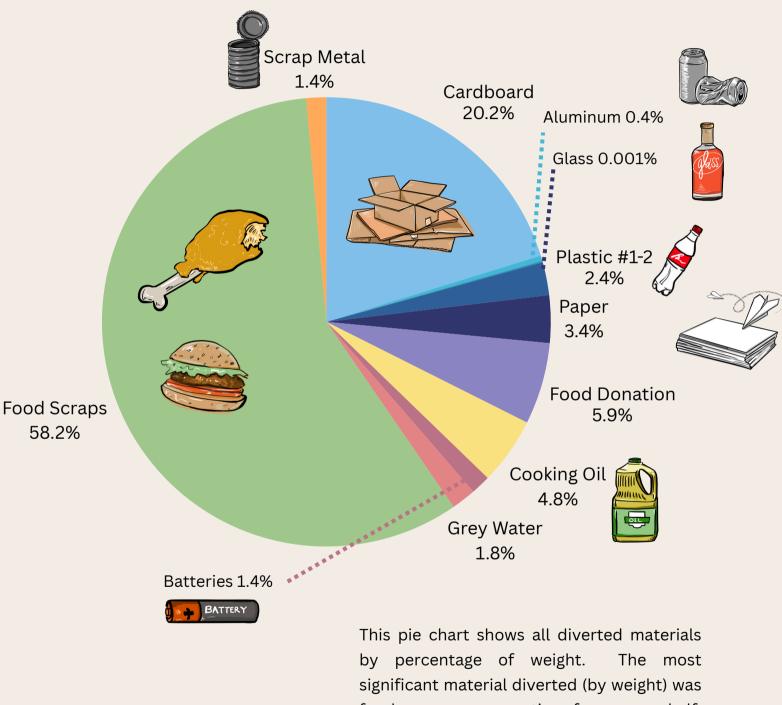
Regardless of whether you picture the resources saved as pounds or dinosaurs, our operation saved a significant weight from landfill.

# DIVERTED MATERIALS

The following graphic demonstrates the diverted streams at this wildfire.



# DIVERTED MATERIALS



significant material diverted (by weight) was food scraps, accounting for over half, 58.2%, of diverted material.

# **DIVERSION DATA METHODS**



We meticulously weighed, measured, and calculated material weights while on incident. All of our diverted materials data is from verified, weighed loads. Our dumpster weights are estimated using the EPA standard volumetric conversion of 138 lbs/cubic yard. On the Park Fire we had an on-site truck scale we used to weigh materials.

Compost/food scraps were individually weighed by the bucket or bin, or weighed by the truckload at the on-site truck scale, before being donated to local farms.

Photo: Sadie using a hand scale to weigh a bag of compostable plates. 9/12/24.

Cardboard weights were derived from using the on-site truck scale as well as EPA metric conversions to accurately estimate cardboard load weights. Plastic bottles and cans were individually weighed by the 55 gallon bag using a luggage scale before being donated to the Emily Jane Wilbanks Memorial Scholarship Fund. Other recycled material weights were derived by using a combination of hand scale, floor scale, and weight receipts from recycling facilities.

Food donation weights were weighed by the box by both our team as well as by local food bank.

Batteries were weighed by the bucket, with final weights verified by Battery Recyclers of America upon mass pickup. Other special materials were individually weighed.

# MATERIAL TOTALS

Commodity Type	Weight (Pounds)	Commodity Type	Weight (Pounds)
Cardboard	4,020	Cooking Oil	960
Plastic #1	470	Batteries	280
Plastic #2	0	Grey Water	350.28
Paper	680		
Aluminum	77	alter a	1200
Glass	20		
Scrap Metal	285		57
Food Scrap	11,553		
Food Donation	1,168		

Photo above: Sadie recording data with a clipboard from a chair found in the trash. September 2024.

## **RECYCLING LOCATIONS**

Name	Commodity Type	Location	Dates	
Intermountain Disposal	Cardboard	Portola, CA	9/10/2024, 9/17/2024	
Yolo County Landfill	Food Scraps, paper, scrap metal, glass	Woodland, CA	9/17/2024	
Emily Jane Wilbanks Memorial Scholarship Fund	Bottles and cans	Plumas, CA	9/17/2024, 9/11/2024	
Chester Wellness & Family Resources	& Food Donation Chester, CA		9/6/2024, 9/13/2024, 9/18/2024	
Tony	Cooking Oil	Redding, CA	9/9/2024, 9/17/2024	
Battery Recyclers of America	Batteries	Paradise, CA	9/18/2024	

## **RECYCLING LOCATIONS**

Name	Commodity Type	Location	Dates
Ken's Worm Farm	Food Scrap	Durham, CA	9/16/2024
Lloyd's Worm Farm	Food Scrap	Mckinleyville, CA	9/14/2024
Patti's Farm	Food Scrap	Plumas, CA	9/3/2024
Cicero's Farm	Food Scrap	Manton, CA	9/7/2024, 9/10/2024
Feild Farms	Food Scrap	Bend, OR	9/24/2024
Park Fire Grey Water Contractors	Grey Water	N/A	9/11/2024, 9/12/2024

## WASTE LOCATIONS

Name	Commodity Type	Location	Dates
Waste Management	Landfill Estimated weights used	Local Office in Quincy, CA Hauled from Chester ICP	9/3/2024, 9/5/2024, 9/10/2024, 9/18/2024

## WASTE WEIGHT RECEIPTS

Click this link to access a Google folder containing dated documentation photos of all landfill dumpsters prior to being swapped by Waste Management during our time on the Park Fire. EPA metric conversion of 138 lbs per cubic yard was used to accurately estimate dumpster weights as confirmed dumpster weights were not available from the dumpster contractors.

## PARK 2024 WEIGHT RECEIPTS:

HTTPS://DRIVE.GOOGLE.COM/DRIVE/FOLDERS/1B4A20 AYGHKDDBFWPEGIJZZGA63BBMFJC?USP=SHARING

Photos from the top: Recycle center dumpster. 9/3/2024. Catering dumpster. 9/3/2024.



## pulled September 3

30 yd catering landfill dumpster 95% full



# **RECYCLING RECEIPTS**

Click this link to access a Google folder with daily diversion photos, weights, and receipts for the Park Fire.

### PARK 2024 RECYCLING PHOTOS AND RECEIPTS:

https://drive.google.com/drive/folders/14HZn39inaVciP5bAoqsNIEEJzMH 3e0xA?usp=sharing

### Examples

DONATION RECEIPT 09.06.2024 Webenerative 372 Main Street mester sure cA \_ ZP. 910020 Rebeura barrett 240 165 Repina tamest





3480 lbs compost driven 126 miles roundtrip September 7th 5:06 PM

Photos from top left, clockwise: Chester Wellness and Family Resources nonperishable donation receipt. 9/6/2024. Compost weight and loaded box truck to be dropped at Cicero's farm. Weighed using truck scale-on site. 9/7/2024.

Photo of compost loaded in pick up truck with weights dropped at Patti's farm. Weighed using hand scale. 9/3/2024.

## PARKFIRE : CHESTER ICP



Park fire ICP was in Chester, CA.

The Park fire ICP was next to Lake Almanor. It was a 5 minute drive from the town of Chester, and close to Chester Wellness & Family Resources.

It was a leveled and graveled work site from the Dixie Fire era. The WeGenerative team jokingly referred to it as, "the moon" because of the flat rocky landscape.

Photo: Kelsey on e-bike. 9/5/2024.

# **RECYCLE CENTER**



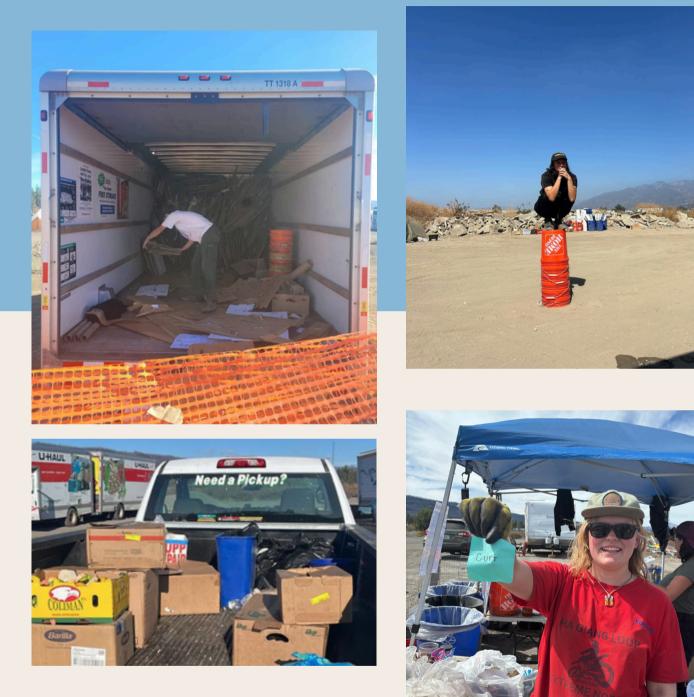


Photos from top:

Team sorting at front of house recycle center. 9/2024.

Noma sorting at Recycle Center. 9/5/24.

# **PROGRAM IN ACTION**



Photos from top left, clockwise:

Alina loading cardboard to be recycled at Intermountain Disposal. 9/9/2024. Kelsey perched on a bucket like a seagull. September 2024. Sadie sorting at our recycle center. 9/9/24. Pick-up loaded with food scraps from breakfast. 9/16/2024.

## **PROGRAM IN ACTION**



Photos clockwise from top:

Sorted 55 gallon bags of plastic bottles ready to be recycled. 9/8/24.

Uhaul full of food scraps using on site truck scale to weigh material before heading to farm. 9/10/24.

Alina in recycle center dumpster. 9/11/24.

Molly Sadie and Kelsie in front of U-hual box truck. 9/9/24.

# **PROGRAM BENEFITS**

Benefits of implementing waste reduction at this wildfire included:

**Giving back to local farmers.** We donated edible food and food scraps on a daily basis. On average, we donated 586.1 Lbs of food a day to local farmers alone! This statistic does not include the food scraps brought to Yolo County Landfill Compost Facility, which brings the our average food scrap diversion to 608 lbs of food scraps diverted a day.

**Food Sorted, Saved, and Donated to Food Banks.** We donated over 1,168 lbs of edible food to the Chester Family and Wellness Clinic.

**Recycling Proceeds Donated to NonProfits.** Our sorted recyclables were donated to the local Emily Jane Wilbanks Memorial Fund to recycle for CRV revenue. Charity options were presented to logistics teams based on our engagement with the community and selected by the Logistics Chief. Based on the California rebate value (CRV), we donated the equivalent of \$749.76 to the Emily Jane Wilbanks Memorial Fund.

**Reducing liquid trapped in landfill.** It is estimated that 1% of the world's fresh water supply is trapped in water bottles with their caps on, sealed in landfills. We always empty the liquid out of water bottles and other containers while we sort waste. We partnered with a grey water contractor on site to recycle 350.28 lbs of grey water.

## Turning would-be waste into resources.

On the Park fire we partnered with Tony, a local cooking oil recycler who turns cooking oil into biofuel. With his help, we recycled 960 lbs of cooking oil, which will be converted to biofuel. We also collected 280 lbs of batteries which were responsibly recycled by Battery Recyclers of America.



## SUPPORTING LOCAL FARMERS







Photos from top left, clockwise: Sadie celebrates her first compost load at Cicero's farm. 9/7/2024. Alina unbags compost at Cicero's farm. 9/10/2024. Freshly unloaded compost at Ken's worm farm. 9/16/2024

We are grateful to have worked with a total of 5 farms: Patti's farm, Cicero's Farm, Lloyd's Worm farm, Ken's Worm Farm, and Field Farms. We worked with each farmer to ensure that the food scraps we brought them adhered to the unique needs of their animals and compost heaps. Over the course of our time on incident, we donated an average of

## 586.1 LBS OF FOOD TO FARMERS A DAY

# FOOD DONATIONS FOR THE LOCAL COMMUNITY

We focus on food donation as the most valuable resource to save from waste and contribute positively to the local community. We partnered daily with the caterers and the Reefer team at each ICP, and sorted through individual leftovers and lunches to achieve large volumes of daily food donation. On the Park, fire we donated to the Chester Wellness & Family Resources. In total, we achieved:

## 1,168 LBS OF FOOD DONATED



Molly with non-perishable boxes donated to Chester Wellness & Family Resources. 7/18/24. Sadie donating non-perishables to Chester Wellness & Family Resources. 9/13/24.

## 61.5 LBS FOOD DONATED A DAY

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# **RECYCLING FOR CHARITY**

On the Park fire, we worked with the Emily Jane Wilbanks Memorial Fund. we sorted, transported, and donated California CRV recycling, plastic bottles and aluminum cans. In total we donated

## 470 lbs plastic bottles and 70 lbs of aluminum cans

Based on the California CRV\* values of \$1.32 per pound for plastic #1 and \$1.68 for aluminum, the total estimated donation value on the Park fire is

## **\$749.76 DONATED**

**The Emily Jane Wilbanks Memorial Fund** is a scholarship fund for students in Plumas County. The fund was established by Plumas County firefighters Kim and Sam Wilbanks in honor of their daughter, Emily, after they lost her in a car accident in 2000.





Photo: Sam and Kim Wilbanks on their truck Rusty, full of CRV in 2021, when WeGenerative met them on the Dixie Fire.

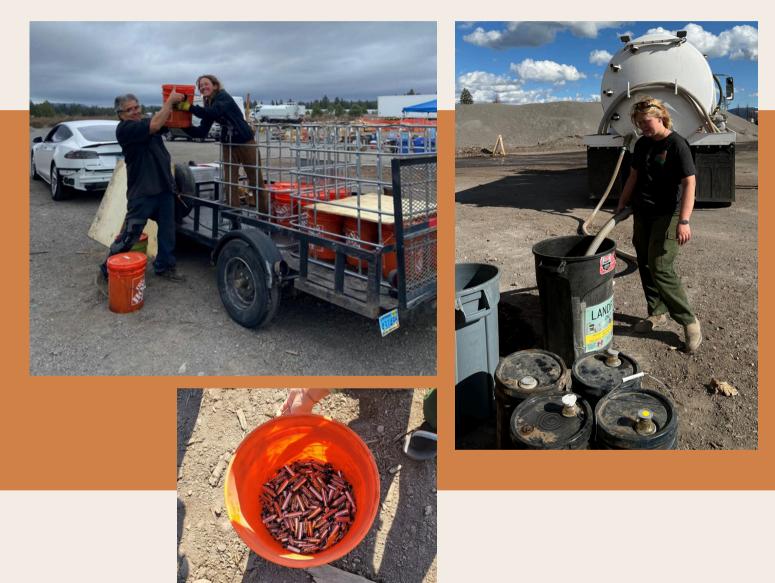
\*California CRV values were taken from calrecycle.ca.gov. Due to the fires in the area, the local CRV center has been closed. Kim and Sam are storing the bags to be recycled as the center slowly reopens.

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# SPECIAL MATERIALS

Special materials require special considerations, processes, and outlets. At Park Fire, they included batteries, cooking oil, scrap metal, and gray water.

We are happy to continue our partnership with Tony, a local who we met in 2021 on the Dixie fire. He recycles cooking oil into biofuel.



Photos from top left, clockwise: Molly and Tony loading up used cooking oil. 9/17/24. Bucket of batteries collected from admin row. 9/17/24. Sadie helping gray water contactors remove grey water. 9/17/24.

## GREENHOUSE GAS EQUIVALENCES:

## The Impact of Saving Food From the Landfill

On the Park fire we saved 12,721 lbs of food from the landfill, this includes both the edible food we donated to local food banks and food scraps we donated to farmers. It's hard to picture what it looks like to save 12,721 lbs of food from being landfilled, let alone the 48,339.8 lbs of methane emissions\* consequently prevented from entering the atmosphere and negatively contributing to the greenhouse gas effect.

Instead, picture this:

## From the food waste we saved alone...

(not including any of the emissions saved from recycling efforts of other materials)

We sequestered the same amount of carbon as:

## 717 acres of US forests in a year

We saved the greenhouse gas emissions equivalent of

## **146 cars NOT driven for a year**



\*a single pound of food waste that is not landfilled is estimated to save 3.8 lbs of methane emissions according to the Food and Agriculture Organization. Emissions equivalencies above are calculated using the EPA Emissions Equivalence Calculator.

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# LESSONS LEARNED

The following are our team's lessons learned.

## Challenges

- Intense wind gusts up to 35 mph daily that walloped several ez-ups, pulled cardboard out of our corrals, and had tents flying across the site.
- It was difficult to find a farmer or composter local to the area. We utilized several different farmers various distances from the ICP in order to drop food scraps.
- Before our arrival, a dumpster was ordered by the IMT with the intent to use it as a cardboard dumpster. After its disposal and our direct communication with the local hauler, we informed the IMT that this hauler did not have the means to recycle cardboard, and loading cardboard into a separate bin from this hauler would result in its being landfilled. We agreed to haul cardboard ourselves.

## **Successful Strategies**

- We were encouraged by our point of contact Bec to create educational and enjoyable signage about the benefits of the recycling program. We collaborated on signage that we posted at different places around the ICP.
- Our "Leave Trash Here" signs helped us combat contamination in the catering dumpsters, allowing us to retrieve and sort dozens of bags per day.
- We utilized a 20' box truck as a pseudo cardboard dumpster to problem solve the above mentioned issue with the local hauler not being able to haul cardboard locally themselves. This also kept the cardboard safe from the winds.

## **Safety Best Practices**

• We lifted heavy loads as a team whenever possible, often loading compost in a two- or three-person chain.

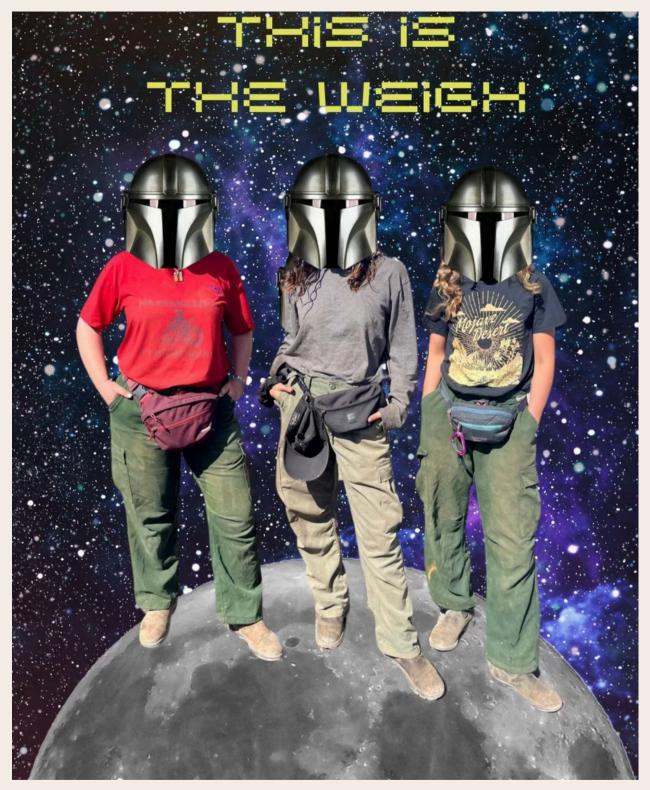


Photo: Sadie, Kelsey, and Molly as Mandalorians on the moon. Edited by



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# SPECIAL THANKS TO

FACL Bec Veerman LOGS Chief Mike LOGS Bill Tony the cooking oil guy Chester Wellness & Family Resource Center Ken and his worms Cicero's family farm Patti and her pigs Michael Penn Chester Wellness & Family Resource Center

## ATTACHMENTS NOT ELSEWHERE INCLUDED

Attachments in the following pages are those that do not appear elsewhere in this proposal.

They include:

- Daily Diversion Log
- Performance evaluations



## DAILY DIVERSION LOG

	Cardboard	Plastic #1	Plastic #2	Mixed Paper	Aluminum	Tin Cans	Non-Perishable Food Donation	Perishable Food Donation	Glass	Cooking Oil	Batteries	Pallets	Compost	Grey Water	Other
Date	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight
8/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8/31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/3		0	0	0	0	0	0	0	0	0	0	0	1309	0	
9/4		0	0	0	0	0	0	0	0	0	0	0	0	0	
9/5		0	0	0	0	0	0	-	0	0	29	0	0	0	
9/6	0	0	0	0	0	0	240		-	0	0	0	0	0	
9/7	0	0	0	0	0	0	0	0	0	0	0	0	3480	0	
9/8		0	0	0	0	0	0	0	0	0	0	0	0	0	
9/9		0	0	0	0	0	0	0	0	480	0	0		0	
9/10			0	0	0	0	0		Ű	0	0	0	2445	0	
9/11	0	329	0	0	47	0	0		-	0	0	0		266.88	
9/12		0	0	0	0	0		0	0	0	0	0	667	83.4	
9/13		0	0	0	0	0	460			0	0	0	0	0	
9/14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9/15	0	0	0	0	0	0	0	0	0	0	99	0	1785	0	
9/16	0	0	0	0	0	0	0	0	0	0	0	0	252	0	
9/17	1800	141	0	680	30	0	468	0	20	480	132	0	417	0	
9/18	0	0	0	0	0	0	0	0	0	0	20	0	567	0	
9/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OTALS	4020	470	0	680	77	0	1168	0	20	960	280	0	11553	350.28	
fotal Diver	ted Weight														1986

The Park Fire Daily Diversion Log tracks the daily weight (in pounds) of materials diverted from the landfill during the Park Fire. This log provides a clear overview of our recycling efforts, including a breakdown of various materials. The 'Other' category includes items such as electronic waste (E-Waste), scrap metal, and donated goods.



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Photo: Yoshi wearing dumpster fire shirt. 9/13/24. 30

## PERFORMANCE EVALUATIONS

### Standard Contractor Performance Report

Highlighted blocks and	re required to be completed	I.				
<b>Evaluation Typ</b>	e: Interim _ Fina	al _ ( <i>check one</i> )				
Evaluating Organization (Fire Name): Park Fire Reporting Period: From 08/31/2024 to 09/11/2024						
<b>Contracting Off</b>	fice:		Contract Number: Order Number (Resource			
				Order/Incident #): S-35017		
<b>Contractor Nan</b>	ne:		<b>Contractor Address</b>			
Wegenerative						
wegenerative						
DUNS:			City:	State:		
Additional or A	lternate Contrac	tor Name:	Zip/Postal Code:	Country:		
TIN:	Industrial Code	e (NAICS):	Commodity Code:	Contract Type:		
Contract Award	d Date:	<b>Contract Expiratio</b>	n Date:	Contract Value:		
Requirement Description (Equipment Type). Incident Recycling						

### Ratings

Summarize contractor performance and check the number which corresponds to the rating for each rating category (See attached Rating Guidelines).

Quality of Product or Service (How of	lid the Contractor perf	form, document any not	ncompliance or performance	issues)		
_0=Unsatisfactory1=Poor	2=Fair	3=Good	X 4=Excellent	5=Outstanding		
Government Comments for Quality of Product or Service (2000 characters maximum):						

Wegenerative helped divert so much from the landfill, and even allowed us to cut back the trash pick up by doing so. They kept us informed on numbers and the diversion rates.

The one thing that Wegenerative did not bring to the incident was lids for the recycling and landfill bins, and said these were forgotten.

Timeliness of Performance (Did the Contractor	r arrive when expected, demob timely; ar	nd perform the work in a timely manner)	
_0=Unsatisfactory _1=Poor _2=Fair	_3=Good_4=Excellent	×5=Outstanding	
Government Comments for Timeliness of Pe	rformance (2000 characters maxi	mum):	
waiting outside the chow hall co	llecting for compost for ever	ard. first thing in the morning, on schedule y meal. And when we needed them, like to re to help breakdown boxes and organize	he time the
Business Relations (Did the Contractor perform i	n a business-like manner; complete adm	inistrative requirements timely)	
_0=Unsatisfactory _1=Poor _2=Fair	_3=Good_4=Excellent	X_5=Outstanding	
<b>Government Comments for Business Relation</b>	ons (2000 characters maximum):		
We agreed and she was quick day, took part in conversations	to make the necessary char and presented us with more	ge we had and how we could add a little n nges. She attended our logistics meetings e ways to divert from the landfills and save idly and professional throughout their term	held every other money on the
		d about changing sizing of trash container aller containers are easier and lighter to h	
	OMB CLEARANCE NO SOURCE SELECTION INFORMA		2

## PERFORMANCE EVALUATIONS

### Additional Info

#### **Contractor Key Personnel**

Contractor Manager/Principal Investigator (Owner's Name):

Government Comment on Contractor Manager/Principal Investigator (2000 characters maximum): (If applicable, describe working relationship with government representatives for this assignment)

Kelsey and her team were energetic, professional and solution oriented. She presented data to us in a way that helped us understand what we were doing and why. She sat with myself and the other base camp manager as we created signs to post around camp to share daily updates. The relationship we built with the "Dumpster Fire" girls was something all incident relationships should be like.

Contractor Key Person (Equipment Operator's Name):

Government Comment on Contractor Key Person (2000 characters maximum): (Describe working relationship with government representatives for this assignment)

### **Customer Satisfaction**

Is/was the contractor committed to customer satisfaction? \_\_\_\_\_Yes \_\_\_\_No (*Check one*)

Would you recommend the selection of this firm again? \_\_\_\_\_Yes \_\_\_\_No (Check one)

Government Comments on Customer Satisfaction (2000 characters maximum): If no to either of above, explain below)

Absolutely wonderful to work with, and hope to work with them again.

### **Admin Info**

Project Officer/COTR (Individual completing the evaluation)

Name: <u>Bec Veerman BCMG(t)</u> Phone: <u>480.204.6101</u> Fax: E-mail Address: <u>Rebecca,Veerman@USDA.gov</u>

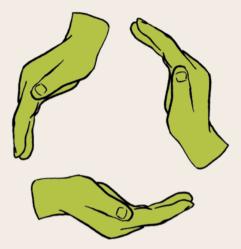
Contracting Officer Representative Name: Kelly Jaramillo Phone: Fax: E-mail Address: Kelly.Jaramillo@usda.gov

Alternate Contractor Representative Name: Phone: Fax: E-mail Address:

Contracting Officer: Name: Melissa Maestas Phone: Fax: E-Mail Address: Melissa.Maestas@usda.gov

> OMB CLEARANCE NO. 9000-0142 SOURCE SELECTION INFORMATION CONFIDENTIAL

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# WEGENERATIVE

WWW.WEGENERATIVE.COM ADMIN@WEGENERATIVE.COM WEGENERATIVE@GMAIL.COM 503-883-1353