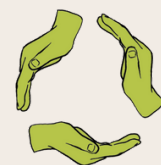




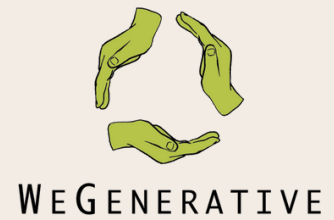
# *USFS Greening Fires Initiative* HILL WILDFIRE WASTE DIVERSION REPORT

PREPARED BY  
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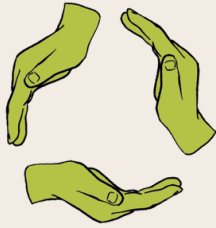


WEGENERATIVE

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W E G E N E R A T I V E

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

# INCIDENT INFORMATION

## **Dates of service**

Mobilized 7/19/24

Arrived 7/20/24

Demobilized 8/3/24

Report Sent 11/20/24

## **Incident General Information**

Hill Fire

Six Rivers National Forest

Hill ICP Location: 125 Gower Ln Willow Creek, CA 95573 United States

Northern California GACC

**Native land** of the following tribes: Hula, Nongatl, Whilkut, Tsnungwe, Cayuse, Umatilla, and Walla Walla

## **Management**

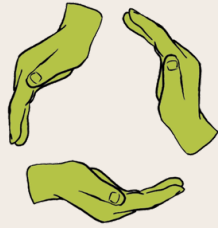
California team 4, Cal Fire Team 2

## **Personnel**

Maximum: 839; Minimum: 282; Average: 541

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 Hill Fire.



W E G E N E R A T I V E

# EXECUTIVE SUMMARY

WeGenerative is pleased to present the Waste Diversion Report for the Hill Fire. During our 15 days on the incident implementing waste reduction operations at the ICP, we achieved a significant 42.4% diversion rate by weight overall.

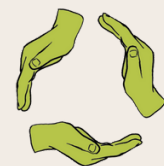
Our approach prioritized community engagement and collaboration. We successfully partnered with local recyclers, farmers, composters, food banks, and on-site personnel, emphasizing the importance of mutual support and positive relations within our team. WeGenerative firmly believes that our team is our 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 10,897 lbs of food scraps benefiting multiple local pig farmers and 1,886 lbs of edible food to the local food bank. Additionally, we monetized recyclables to donate proceeds to the Hoopa Valley Tribe, 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, Josh Graveline, Doug Landers, Moon Mandel, Josh “Best Day Ever” Chandler, Eric Jolley and Kelsey Brixon.



WEGENERATIVE

# DIVERSION SUMMARY

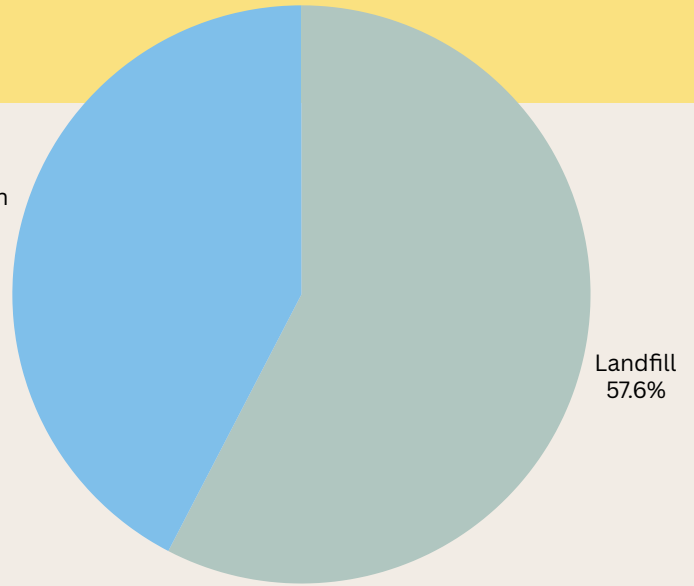
We diverted  
by weight overall.

# 42.4%

Landfill  
**32,440 lbs**

Total diversion:  
**23,863 lbs**

Diversion  
42.4%



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



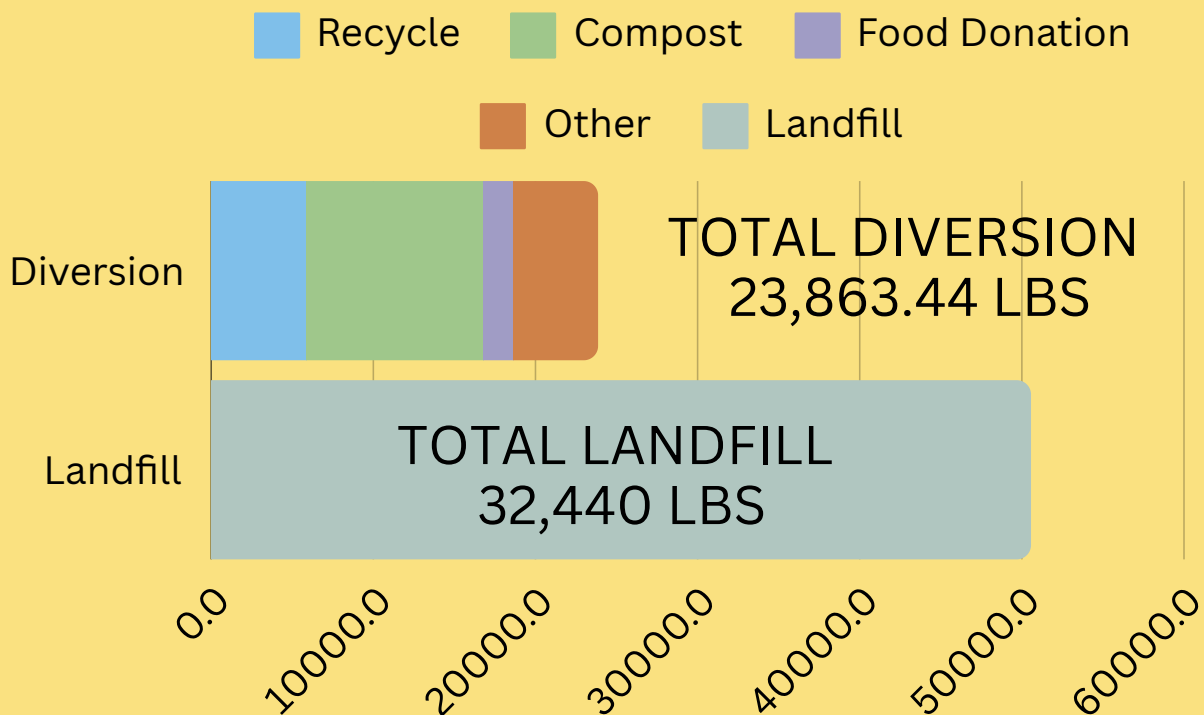
Plastic bottles, aluminum cans, and 5 boxes of non-perishable food donated to Hoopa Valley Food Distribution Center. 7/29/24.

# 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 **23,863lbs** of total diversion looks like. Instead, picture this:

## We saved 5 rhinos from landfill



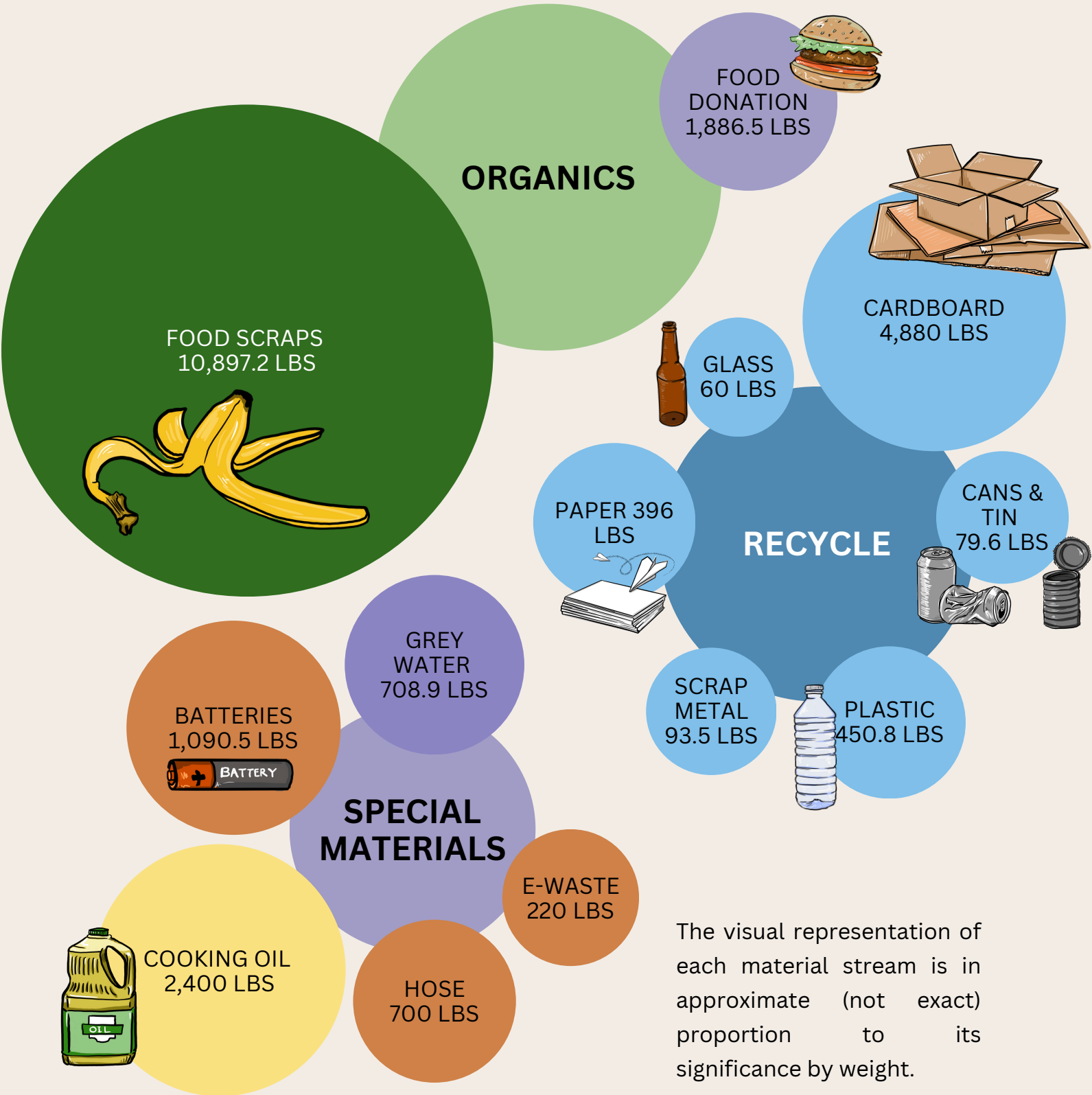
According to Helping Rhinos, the male southern white rhinoceros weighs up to 5300 lbs.

Regardless of whether you picture the resources saved as pounds or rhinoceroses, our operation saved a significant weight from being landfilled.



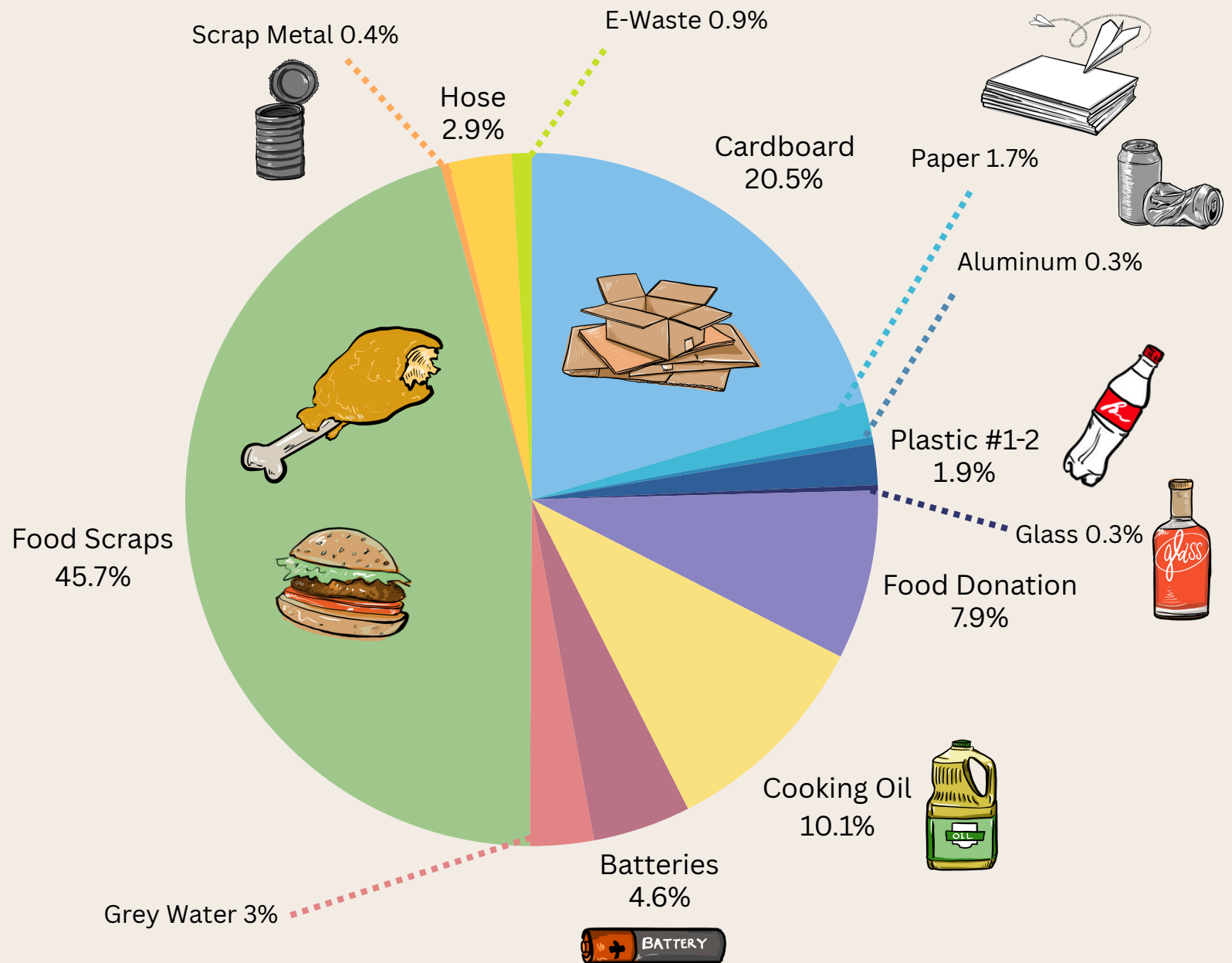
# DIVERTED MATERIALS

The following graphic demonstrates the diverted streams at this wildfire.



The visual representation of each material stream is in approximate (not exact) proportion to its significance by weight.

# DIVERTED MATERIALS



This pie chart shows all diverted materials by percentage of weight. The most significant material diverted (by weight) was food scraps, accounting for 45.7% of diverted material.

# DIVERSION DATA METHODS



We meticulously weighed, measured, and calculated material weights while on incident. All of our data is from verified, weighed loads. We received weight receipts from Humboldt Sanitation, the hauling company, detailed on pages below.

Compost/food scraps were individually weighed by the bucket or bin using a hand scale, or by the box using a floor scale, as pictured on left, before being donated to local farms.

Photo, left: Compost is boxed and ready to be brought to Trinity River Farms. 7/22/24.

Cardboard weights were derived from weight tickets from Humboldt Sanitation hauling company weight receipts.

Food donation weights were weighed by the box before being brought to the Hoopa Valley Food Distribution Center.

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)
Cardboard	4,880
Plastic #1	446.3
Plastic #2	4.5
Paper	396
Aluminum	79.6
Glass	60
Scrap Metal	93.5
Food Scrap	10,897.2
Food Donation	1,886.5

Commodity Type	Weight (Pounds)
Cooking Oil	2,400
Batteries	1,090.5
E-Waste	220
Grey Water	708.9
Hose	700



# RECYCLING LOCATIONS

Name	Commodity Type	Location	Dates
Redway Transfer Station	Paper, glass, scrap metal	Redway, CA	7/10/2024, 7/13/2024, 7/14/2024, 7/15/2024, 7/18/2024,
Yreka Transfer	Plastic #2, Paper	Yreka, CA	7/23/2024
Humboldt Sanitation	Cardboard	McKinleyville, CA	7/26/2024, 8/3/2024
Hoopa Valley Food Distribution	Food Donation, Bottles and Cans (CRV)	Hoopa, CA	7/23/2024, 7/24/2024, 7/29/2024, 7/31/2024
Smart Fuels Alternative	Cooking Oil	Redding, CA	7/26/2024, 7/31/2024
Sequential	Cooking Oil	National Cooking Oil Recyclers	8/1/2024, 8/3/2024

# RECYCLING LOCATIONS

Name	Commodity Type	Location	Dates
Trinity River Farm	Food Scraps	Willow Creek, CA	7/22/2024, 7/23/2024, 7/24/2024, 7/25/2024, 7/26/2024, 7/28/2024, 7/9/2024, 7/30/2024, 7/31/2024, 8/1/2024, 8/2/2024, 8/3/2024
Lloyd's Worm Farm	Food Scraps	Mckinleyville, CA	7/24/2024, 7/28/2024, 8/1/2024
Donny	Food Scraps	Fort Jones, CA	7/23/2024
B&B	Grey Water	Hill Fire Grey Water Contractors	7/6/2024, 7/28/2024, 8/2/2024
Battery Recyclers of America	Batteries	National Battery Recycling Company	8/3/2024
Sequoia Zoo	Fire Hose	Eureka, CA	8/4/2024



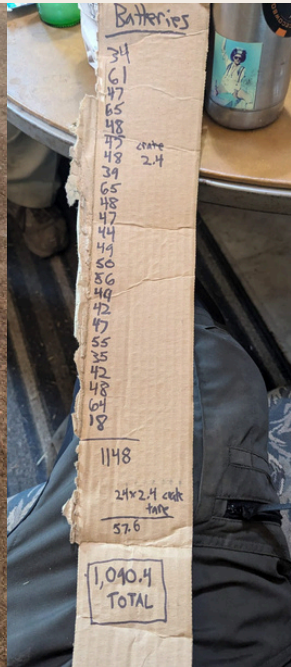
# RECYCLING RECEIPTS

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

HILL 2024 RECYCLING PHOTOS AND RECEIPTS:

<https://drive.google.com/drive/folders/14HZn39inaVciP5bAoqsNIEEJzMH3e0xA?usp=sharing>

Examples:



Redway Transfer Station  
 Operated by Recology  
 Observation Camp Road  
 Redway, CA 95560

Ticket # 130705  
 Date: 8/14  
 Time: 3:11

License Plate/Truck #: AS14144633  
 Customer Name: \_\_\_\_\_  
 Customer Account #: \_\_\_\_\_  
 Profile: 113411

Origin	Materials & Services	Quantity	Rate	Amount
	100	1	4.91	
	2		50	
Total Amount:				64.91

Gross: 10640  
 Tax: 16430  
 Net: 220

Payment Method:  
 Cash  
 Check  
 Credit Card

Signature: \_\_\_\_\_ Weighmaster: \_\_\_\_\_

SALE AMOUNT: \$59.91  
 CUSTOMER COPY

Photos from top left, clockwise:

Batteries are organized and contained with their weights listed to the right, July 31, 2024.

Pre-weighed compost sits in Trinity River Farms' compost pile after having just been unloaded, August 1, 2024.

Weight ticket & recycling receipt from Redway Transfer Station is received on August 4, 2024.



# HILL FIRE : WILLOW CREEK ICP



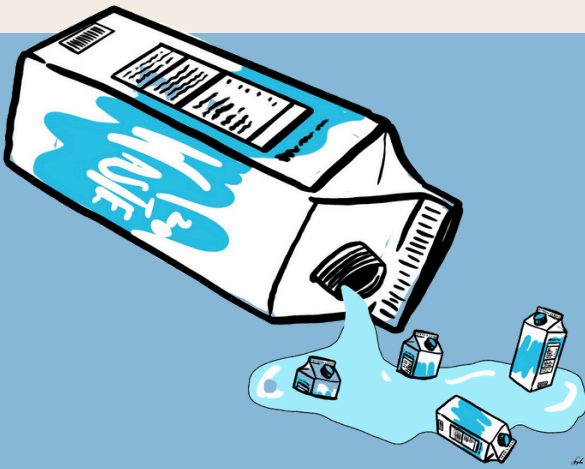
Hill Fire was located at Veterans Park in Willow Creek, CA.

We were a 20 minute drive from the Hoopa Valley Food Distribution Center, just a 6 minute drive to the local farmers who received our compost, and only about 2 minutes away from the Trinity River.

Our recycle center was adjacent to the exit of the camp, strategically placed to be easily noticed by all ICP personnel.

Photo above: Yoshi with truck at recycle center. July 2024.

# RECYCLE CENTER



Photos from top (July 2024):

Triple bin set co-located adjacent to dumpster.

Doug builds a cardboard corral at Supply.

# PROGRAM IN ACTION



Photos from top left, clockwise:  
Yoshi unloads 699 lbs of food scraps  
at Trinity River Farms. 7/25/24.



Hill Fire grey water contractors  
retrieve 30 gallons of grey water  
from our recycle center. 7/26/24.



Doug spills the beans into the  
compost pile. July 2024.



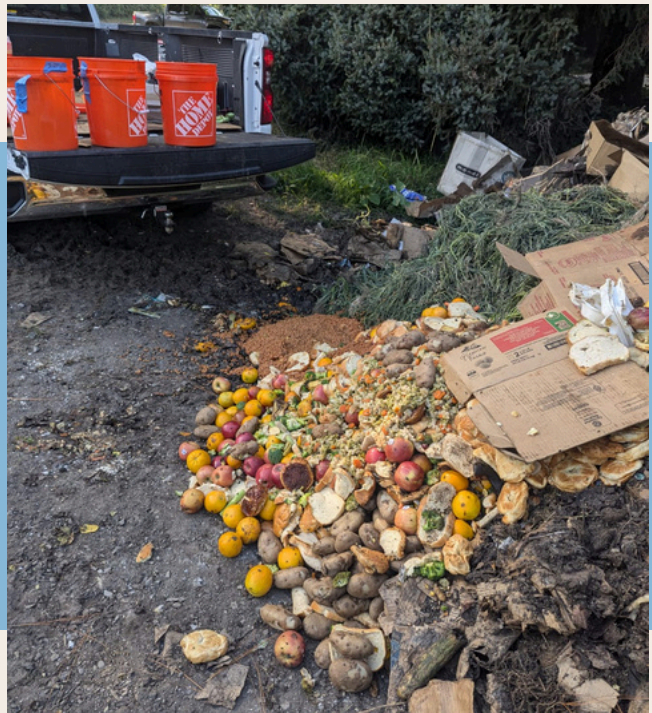
Hand-sorted snacks are boxed and  
brought to the recycle center.  
7/24/24.

Pick-up truck is loaded with 618.5 lbs  
of compost, ready to be brought to  
Trinity Farms. 7/24/24.

# PROGRAM IN ACTION



Text



Photos clockwise from top left:

Our box truck loaded with plastic bottles and cans ready to be driven to the Hoopa Tribe. 7/29/24.

Bear at Sequoia Zoo in front of upcycled fire hose hammock. 8/5/24.

618.5 lbs of food is dropped at Trinity River Farm. 7/24/24.

Boxes of milk cartons are donated to Hoopa Valley Food Distribution Center. 7/22/24.

# 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 726.5 lbs food per day to local farmers.

## **Food Sorted, Saved, and Donated to Food Banks**

We donated over 1,886.5 lbs of edible food to the Hoopa Valley Tribe Food Distribution Center.

## **Recycling Proceeds Donated to Nonprofits**

Our sorted recyclables were donated to the local Hoopa Tribe to be monetized. 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 \$722.83 to the Hoopa Valley Tribe.

## **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 708.9 lbs of grey water.

## **Turning Would-Be Waste into Resources**

On the Hill Fire, we partnered with Smart Alternative Fuels and Sequential to recycle 2,400 lbs of cooking oil, which will be converted to biofuel. We also collected 1,090.5 lbs of batteries which were responsibly recycled by Battery Recyclers of America.



# SUPPORTING LOCAL FARMERS

## Trinity River Farm



We are grateful to have worked with two different local farms: Trinity River Farm and Lloyd's Worm Farm.

We worked with each farmer to ensure that the food scraps we brought them adhered to the unique needs of their farm.

Over the course of our time on incident, we donated an average of

**726.5 LBS OF FOOD TO FARMERS A DAY** 

Photos from top left, clockwise:

699 lbs food scraps is loaded and ready to be brought to Trinity River Farms. 7/25/24.

1,061 lbs of wet and dry compost sits after being dropped to Trinity River Farms. 7/26/24.

578 lbs of pre-weighed compost is ready to go to Trinity River Farms. 7/23/24.

# 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. We donated food to the Hoopa Valley Tribe's Hoopa Valley Food Distribution Center. In total, we achieved:

## 1,886.5 LBS OF FOOD DONATED



Non-perishable and perishable food donated to Hoopa Valley Food Distribution Center. 7/24/24



Photos from top: Lawrence and Hoopa Valley Food Distribution Center receive non-perishable donation. 7/31/24.

Non perishables donated to Hoopa Valley Food Distribution. 7/23/24.



## 125.8 LBS FOOD DONATED A DAY

# RECYCLING FOR CHARITY

On the Hill fire, we worked with the local Hoopa Valley Tribe as our partner for both food donation and recycling revenue. We sorted, transported, and donated California CRV, including plastic bottles and aluminum cans. In total we donated:

**446.3 lbs plastic bottles and 79.6 lbs pf aluminum cans**

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

**\$722.83 DONATED**



**The Hoopa Valley Tribe** is a government organization with various community resource programs that protect the interests and well-being of the Hoopa Valley locals. One of their programs is the Hoopa Valley Food Distribution Network.



Bottles and cans donated to the Hoopa Valley Tribe. July 2024.

\*California CRV values were taken from [calrecycle.ca.gov](http://calrecycle.ca.gov)



# SPECIAL MATERIALS

Special materials require special considerations, processes, and outlets. They include pallets, batteries, cooking oil, scrap metal, and fire hose.

We are excited about our continued partnership for used fire hose donation with the Sequoia Zoo. The hose will be repurposed into enrichment materials for zoo wildlife, which could include toys for tigers and hanging hammocks for monkeys.



Photos clockwise from top left,

Sequoia Zoo receiving fire hose donation. 8/5/24.

Used cooking oil being loaded into Sequential container. July 2024.

Repurposed fire hose is now used as a hammock for wildlife in the zoo. 8/5/24.

Fire hose that has been upcycled into a climbing structure is displayed at Sequoia Zoo. 8/5/24.

# GREENHOUSE GAS EQUIVALENCES:

## The Impact of Saving Food From the Landfill

On the Hill Fire, we saved 12,783.7 lbs of food from the landfill, including 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 12,783.7 lbs of food from being landfilled, let alone the 48,578.06 lbs of methane emissions\* consequently prevented from entering the atmosphere and negatively contributing to the greenhouse gas effect.

Instead, picture this:

## From food waste alone:

We sequestered the same amount of carbon as:

# 720 acres of US forests in a year

We saved the greenhouse gas emissions equivalent of

# 80.5 homes' energy use for one 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.

# LESSONS LEARNED

The following are our team's lessons learned.

## Challenges

- We had limited driving access to pick up material from compost station due to its location.
- The dust and wind gusts provided daily challenges, allowing for our team to strengthen their creative problem solving skills.

## Successful Strategies

- Our waste collection station was located at the end of engine row, easily accessible for vehicles to access and drop off on their way out of camp daily.
- Drop off locations for materials conveniently very close to ICP, most within just a few minutes drive

## Safety Best Practices

- We offloaded compost every single day to avoid unwanted insects, material rotting, and excessively heavy loads to lift.
- For the layout of this particular camp, it was best to opt not to drive our vehicles between the hours of 6-8 so as not to block any fire traffic. We serviced bins by foot during these times.





**Thank You**

# SPECIAL THANKS TO

Farmers at Trinity Farm. Their helpful and endlessly kind staff helped us throughout the duration of our time spent in Willow Creek. Through rotten food and getting our trucks stuck in their compost pile, they continued to support us and we express our utmost gratitude.

Lawrence from the Hoopa Valley Food Distribution Center made himself fully available for us to drop off donations, which greatly helped our operation. His willingness to accommodate our ever-changing schedule and also to help us by picking up was immensely appreciated.

Marty in Logistics for help with our donation processes.

# 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

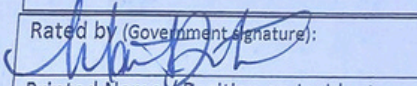
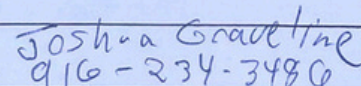
HILL Diversion Data Daily Log																
Date	Cardboard	Plastic #1	Plastic #2	Mixed Paper	Aluminum	Tin Cans	Non-Perishable Food Donation	Perishable Food Donation	Glass	Cooking Oil	Batteries	Pallets	Compost	Grey Water	Other	
Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	
7/22	0	0	0	0	0	0	0	674	0	0	0	0	737	0	0	
7/23	0	95	4.5	96	10.5	0	169.5	0	0	0	0	0	653.5	0	13.5	
7/24	0	0	0	0	0	0	127	276	0	0	0	0	720.5	0	0	
7/25	0	0	0	0	0	0	0	0	0	0	0	0	699	0	0	
7/26	2240	0	0	0	0	0	0	0	0	600	0	0	1061	250.2	0	
7/27	0	0	0	0	0	0	71	0	0	0	0	0	0	0	0	
7/28	0	0	0	0	0	0	0	0	0	0	0	0	2375	208.5	0	
7/29	0	244	0	49	0	283	0	0	0	0	0	0	779	0	0	
7/30	0	0	0	0	0	0	0	0	0	0	0	0	742	0	0	
7/31	0	107.3	0	20.1	0	233	0	400	1090.5	0	712.2	0	0	0	0	
8/1	0	0	0	0	0	53	0	1120	0	0	1449	0	0	0	0	
8/2	0	0	0	0	0	0	0	0	0	0	566	250.2	0	0	0	
8/3	2640	0	0	0	0	0	0	0	280	0	403	0	0	0	0	
8/4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	920	
8/5	0	0	0	300	0	0	0	60	0	0	0	0	0	0	80	
<b>TOTALS</b>	4880	446.3	4.5	396	79.6	0	936.5	950	60	2400	1090.5	0	10897.2	708.9	1013.5	
<b>Total Diverted Weight</b>																<b>23863</b>
<b>Landfill Weight</b>																<b>32440</b>
<b>Diversion Rate</b>																<b>0.4238317674</b>

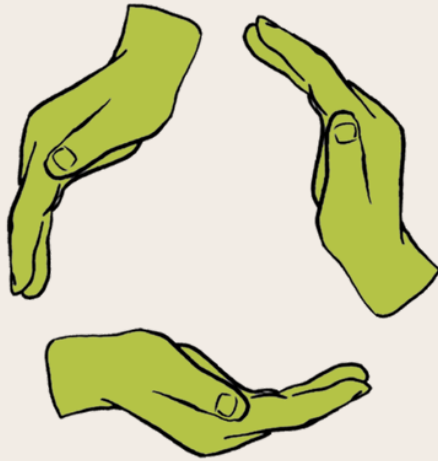
The Hill Fire Daily Diversion Log tracks the daily weight (in pounds) of materials diverted from the landfill during the Hill Fire. This log provides a clear overview of our recycling efforts, including a breakdown of various materials. The 'Other' category includes items such as fire hoses, electronic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



# PERFORMANCE EVALUATIONS

EXHIBIT E Rev 5/2021 RDM

CONTRACTOR PERFORMANCE RATING (May 2020)		
Contractor/Company Name <b>WEGENERATIVE</b>	Resource Type and Equipment ID (Engine/Dozer/Water Tender/etc.) <b>RECYCLE</b>	Fire Name and Number <b>Hill Fire</b>
Agreement Number <b>12025B22T0025</b>	Equipment Resource Order # <b>S-36</b>	Dates covered by this evaluation <b>7/19 - 8/2/2024</b>
Contracting Officer Name <b>MELISSA MAESTAS</b>		
<p><b>Evaluation Form Instruction:</b> The intent of this form is to communicate information from the incident to contracting officers, contracting officer representatives and administrators. Please ensure that contact information is correct and <b>LEGIBLE</b> so that follow-up communication is possible, when needed. This form is available for use by any government representative that interacts with vendors (IE: fire line supervisors, dispatchers, finance sections, inspectors, etc.)</p>		
<p><b>In Summary:</b></p> <ul style="list-style-type: none"> <li>✓ Check either SATISFACTORY or UNSATISFACTORY for each question.</li> <li>✓ Use the space allowed to provide a short synopsis or bullet-points, as needed. A narrative/justification is <b>not</b> necessary for vendors that were rated Satisfactory in all categories on this evaluation. Additional pages can be used as need.</li> </ul>		
<p><b>Quality of Service:</b> Was the Vendor's <i>Quality of Service</i> (knowledge of the job, physical condition of personnel, attitude, decisions under stress, initiative, use of safe practices, crew organization, performance of resource, equipment organization/reliability, and supervisory performance) satisfactory on this incident?</p> <p style="text-align: center;"><input checked="" type="checkbox"/> SATISFACTORY      <input type="checkbox"/> UNSATISFACTORY</p>		
<p>Narrative/justification: <b>Joshua + his crew were a pleasure to work with, very knowledgeable + kept an organized area.</b></p>		
<p><b>Timeliness:</b> Did the Contractor arrive when instructed and complete assigned work in a timely and satisfactory manner while on the incident?</p> <p style="text-align: center;"><input checked="" type="checkbox"/> SATISFACTORY      <input type="checkbox"/> UNSATISFACTORY</p>		
<p>Narrative/justification: <b>Joshua + his crew set up a very organized system</b></p>		
<p><b>Business Relations:</b> Did the Contractor complete administrative work as required (IE: check in, finance and demob) and conduct themselves in a professional and satisfactory manner while on the incident?</p> <p style="text-align: center;"><input checked="" type="checkbox"/> SATISFACTORY      <input type="checkbox"/> UNSATISFACTORY</p>		
<p>Narrative/justification:</p>		
Rated by (Government signature): 	Home Unit Phone Number and Address: <b>2249 SAMACHA Blvd. El Cajon, CA 92019 619-742-1515</b>	Date: <b>8/3/24</b>
Printed Name / Position on Incident: <b>MARTIE HALE LSC1</b>		
<p><b>Contractor Comments:</b> <b>It was a pleasure to work on + hill fire with y'all especially Martie Logistics extraordinary</b></p>		
Resource Operator/Lead (Signature): 	Printed Name: Phone Number: <b>Joshua Graveline 916-234-3480</b>	Date: <b>8-3</b>



# W E G E N E R A T I V E

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