

UC San Diego

ZERO WASTE TOWN HALL

FEBRUARY 28, 2023

Resource Management & Planning

SETTING THE STAGE



STEPHEN JACKSON

ASSOCIATE VICE CHANCELLOR, RESOURCE MANAGEMENT & PLANNING

WELCOME

- Jeffrey Summerhays, Zero Waste Sustainability Manager, Facilities Management
- Dawn Cox, Environmental Coordinator, EDCO
- Steve Van Duine, Stores Supervisor, Surplus Sales
- Andy Hattala, Sustainability Coordinator, UC San Diego Housing, Dining, & Hospitality
- Julianne Luong, Director of Food Justice, Student Sustainability Collective
- Michelle Perez, Manager, Utilities & Sustainability

WELCOME



MICHELLE PEREZ

ENERGY & SUSTAINABILITY MANAGER, UTILITIES & SUSTAINABILITY

LAND ACKNOWLEDGEMENT

The UC San Diego community holds great respect for the land and the original people of the area where our campus is located. The university is built on the unceded territory of the Kumeyaay Nation. Today, the Kumeyaay people continue to maintain their political sovereignty and cultural traditions as vital members of the San Diego community. We acknowledge their tremendous contributions to our region and thank them for their stewardship.

BEFORE WE BEGIN

This webinar is being recorded.

Recordings and Q&A can be viewed on the Climate & Sustainability Town Halls webpage: <https://sustain.ucsd.edu/about/town-halls.html>

QUESTIONS

- Were submitted during registration
- Can be submitted in the Zoom Q&A feature

We'll answer as many questions live as time allows.

WASTE DIVERSION & ORGANICS RECYCLING



JEFFREY SUMMERHAYS

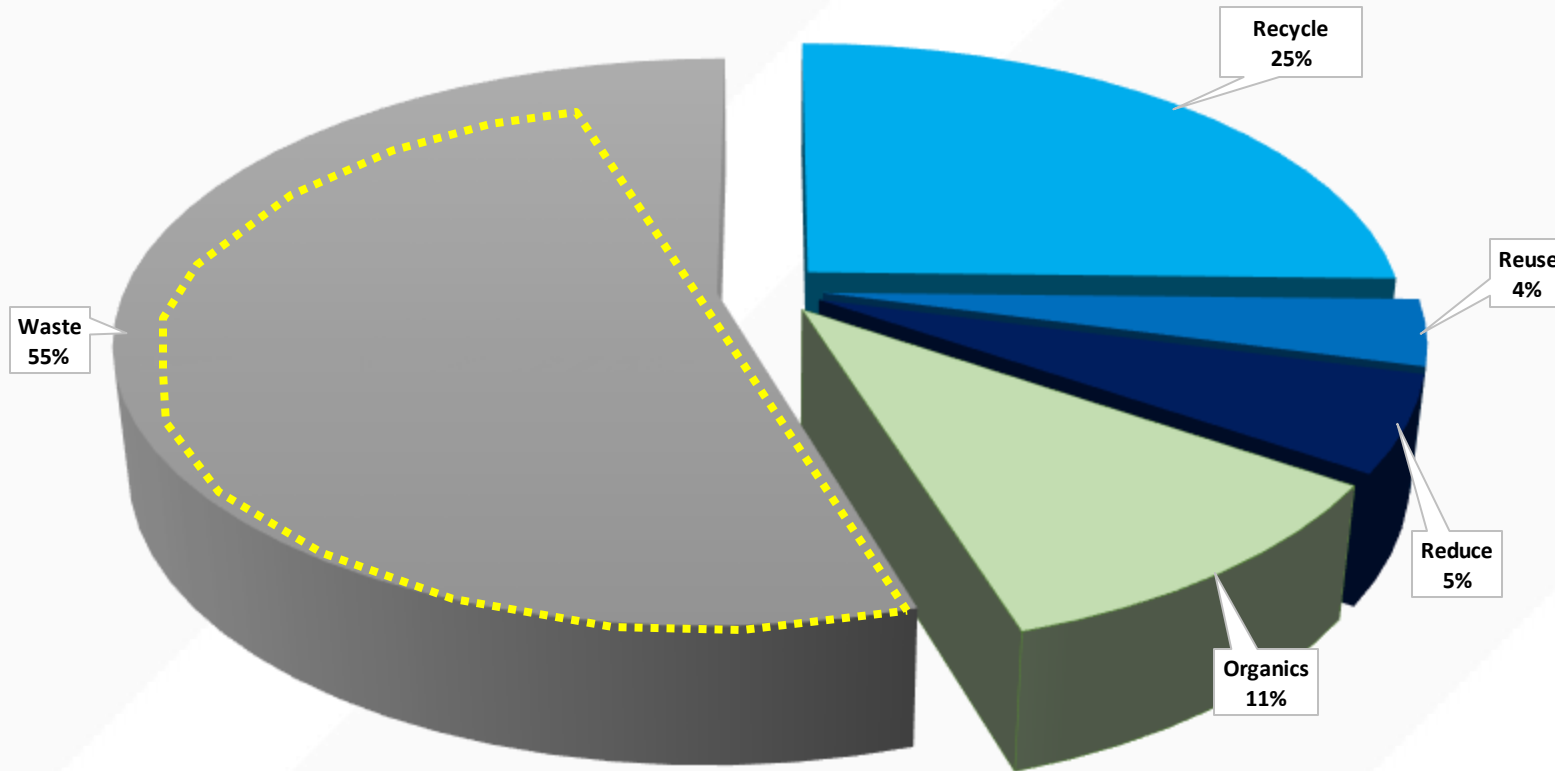
ZERO WASTE SUSTAINABILITY MANAGER, FACILITIES MANAGEMENT

ZERO WASTE SUSTAINABILITY TOWN HALL

- Diversion currently at UC San Diego
- Paper towels composting transitioning to organics composting programs

UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

UC San Diego Diversion Make-up



Report to UCOP in August
45% diversion rate

We are aiming to return to
pre-pandemic levels (51%)
and reach ~11% increase
each year

5,200 tons of waste a year
needs to shrink to about 900
tons to reach our goal

UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

A key aspect of sustainability is realizing the effect on the individual and the individual realizing their effects on sustainability.

UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

2,250 tons of recyclables

1,200 tons of organics

375 tons of reuse and reduction

50 Boeing 737 airplanes

184 African Elephants

159,574 Chemistry books



UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

- What is currently happening at UC San Diego relating to diverting waste?
- What is going to change in the immediate future relating to diverting waste?

UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

"Big five" categories (currently)

- General recycling 16%
- Landscaping and green waste 11%
- Metal specific recycling 10%
- Housing*Dining*Hospitality furniture storage 4%
- Surplus Sales 3.5%

UC SAN DIEGO MOVING TOWARDS ZERO WASTE, 90% DIVERSION

"Big five" categories (future)

- Educational outreach 12%
- Food waste and recovery 8%
- Composting animal bedding 7%
- Single-use plastics elimination 5%
- Surplus Sales 3%

PAPER TOWEL COMPOSTING

COMPOST



Paper Towels ONLY



recycle.ucsd.edu

UCSanDiego

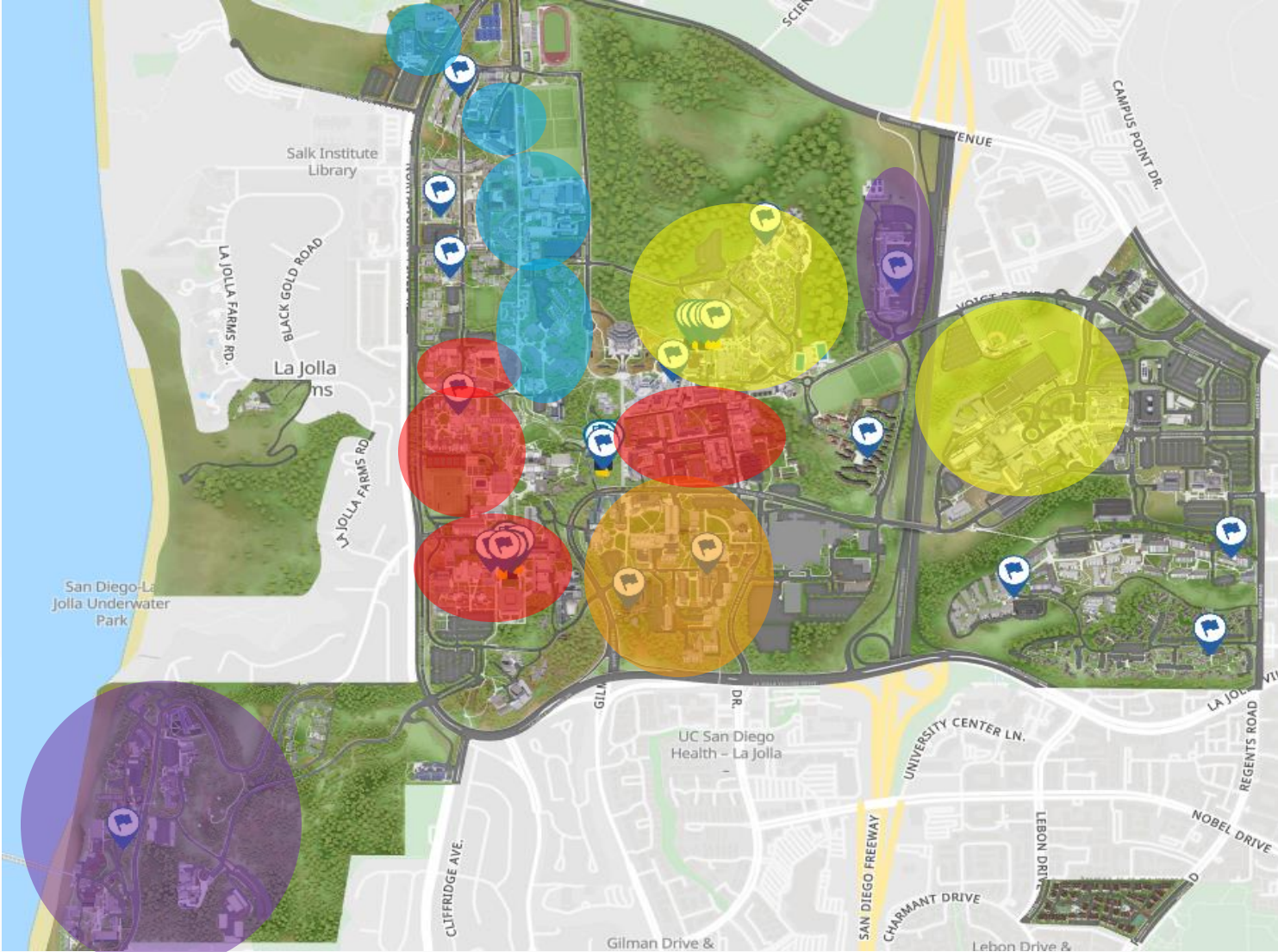
PAPER TOWEL COMPOSTING

- Paper towel composting program started small
- Rolled out in several phases
- Was the first step at delivering user-based organics composting

PAPER TOWEL COMPOSTING

- Removes an estimated 390 tons of CO₂e (carbon dioxide equivalent) annually
- Paves the way for other organic composting efforts (post-consumer food waste)
- Move 2.7% in our diversion rate, +151 tons out of the trash annually

PAPER TOWEL COMPOSTING



Phased Rollout

- Phase I 
- Phase II 
- Phase III 
- Phase IV 
- Phase V 

PAPER TOWEL COMPOSTING



Pilot program had to determine pick-up location, pricing of service, logistics and disposal method (diversion).

We went with a system that worked in conjunction with existing recycling services.

PAPER TOWEL COMPOSTING



Despite similarities, paper towels and paper recycling required different disposal methods.

Green SlimJims[®] visual indicator for this new commodity, for staff and the public

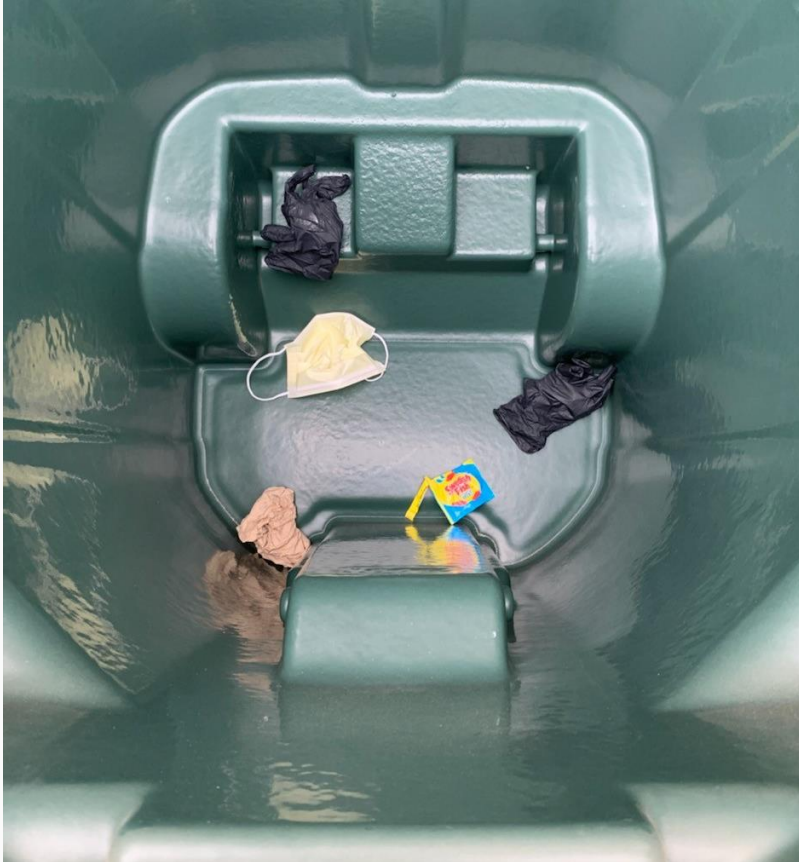
PAPER TOWEL COMPOSTING



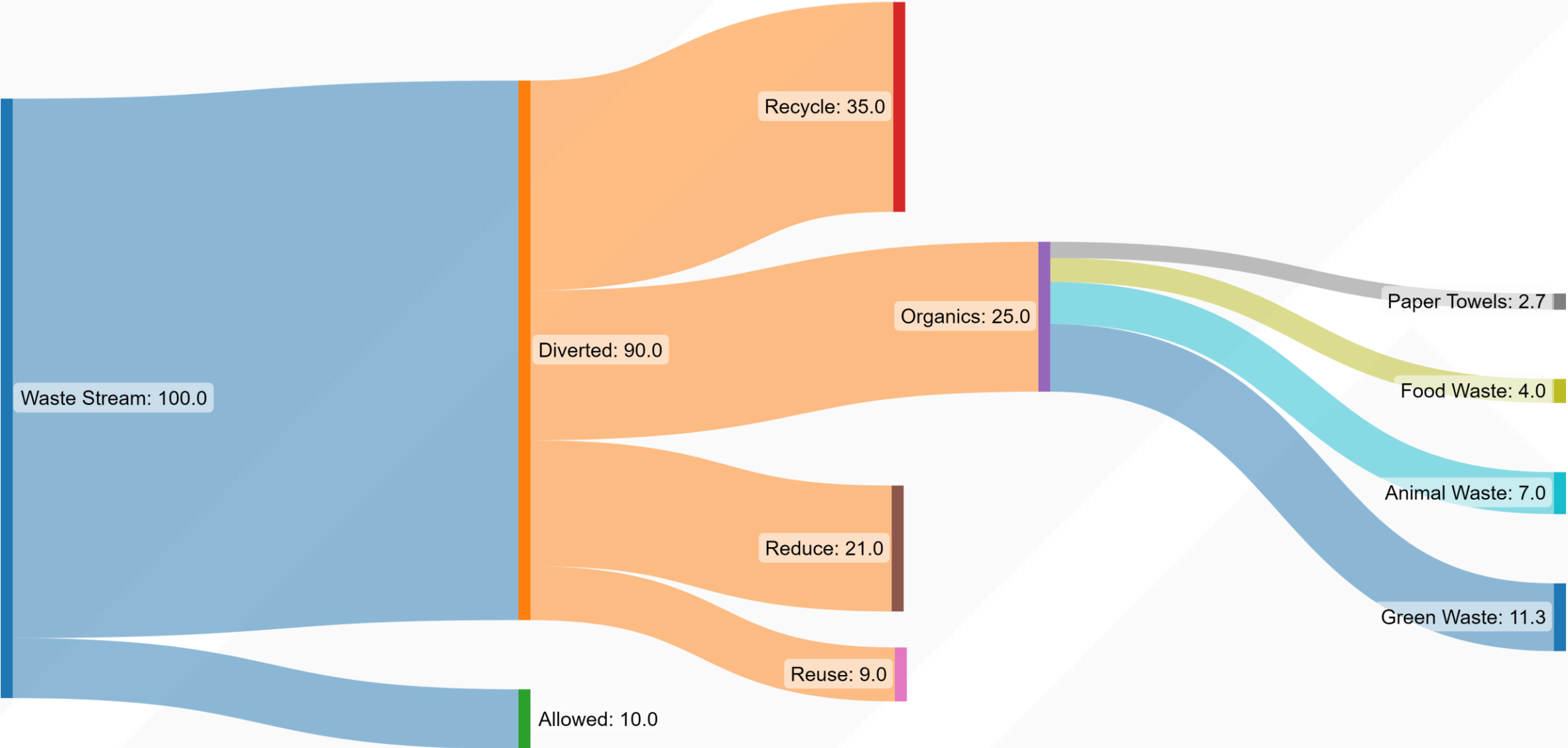
Logistics and material needs are just one half of the effort; outreach and education need to accompany green bins.

These efforts must be "future proof" as they will segue into organics collections.

PAPER TOWEL COMPOSTING

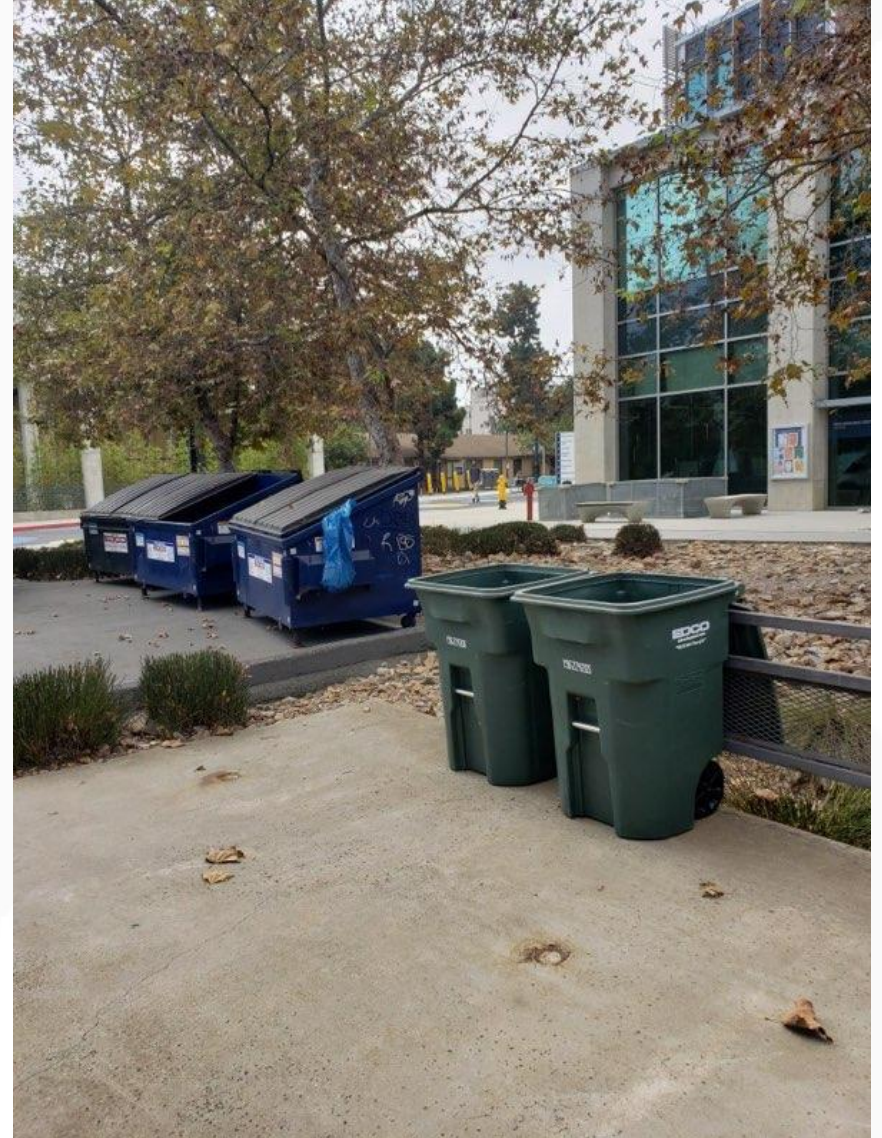


PAPER TOWEL COMPOSTING: PART OF OVERALL DIVERSION STRATEGY



NEXT STEPS: OTHER ORGANICS

- Over 60 pick-up locations, 2,100 bathrooms
- Kitchen and meal prep areas +1,000
- Education of acceptable materials
- Increased cost of diversion
- Leading the UC San Diego campus in organics collection



COMMINGLED ORGANICS SOLUTION & ANAEROBIC DIGESTION



DAWN COX

ENVIRONMENTAL COORDINATOR, EDco

Commingled Organics
SOLUTIONS
On the Road to Zero Waste



On the Road to Zero Waste

EDCO



State-of-the-Art Anaerobic Digestion (AD) Facility

- Produces Renewable Natural Gas (RNG)
- Assists Jurisdictions to Meet State Mandates
- Carbon Neutral Fleet
- Began Serving Customers in January 2021



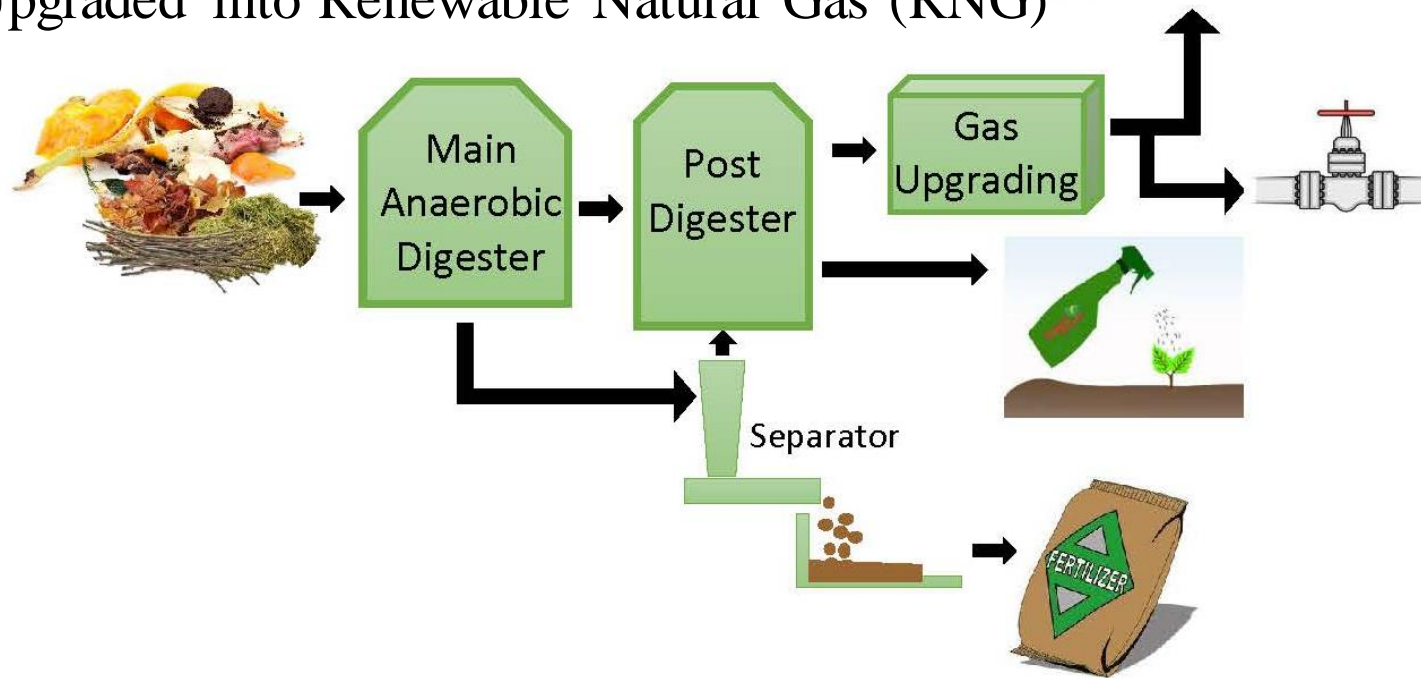
On the Road to Zero Waste

EDCO



What is Anaerobic Digestion

- Biological Process
- Microorganisms Breakdown Material
- Biogas Upgraded into Renewable Natural Gas (RNG)



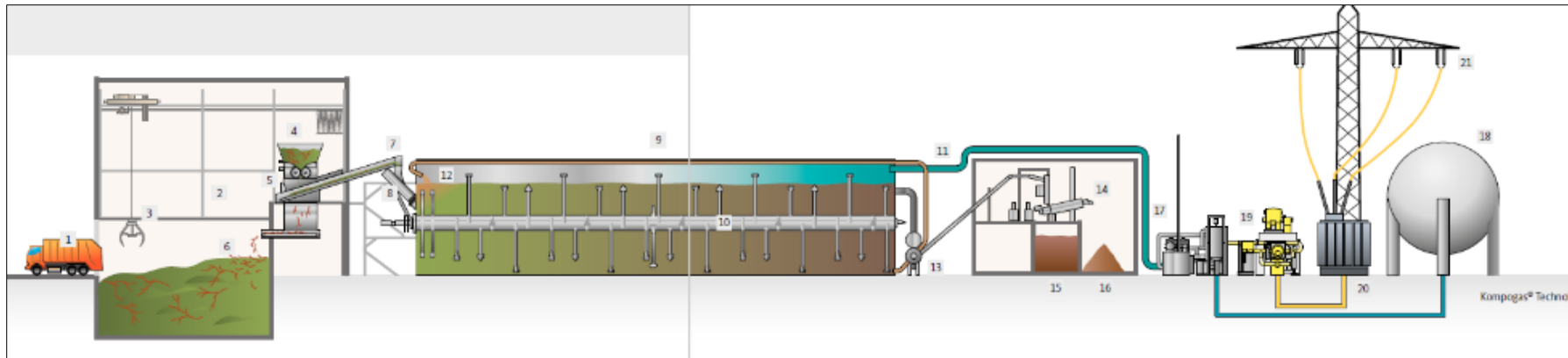
On the Road to Zero Waste

EDCO



The Process

- Three Week Process
- Rotating Paddle Mixes Digestate / Biogas Released
- Solid & Liquid Digestate Used as Organic Fertilizer
- Raw Gas Upgraded into RNG / Injected into Pipeline



On the Road to Zero Waste

EDCO



Acceptable Material

- A quick reference is the statement... *If it Grows, It Goes!*
- We accept cooked and uncooked food waste
- Fruits, vegetables of all kinds are acceptable, including avocado pits
- Greasy and oily foods are acceptable
- Coffee grounds with filters. No K-cups
- Cooked or raw meat, poultry and seafood (including bones)
- Cheese, dairy products, grains, pasta, eggshells, bread and baked goods
- Tea bags and tea leaves
- Nuts, jelly, candy, snack foods, leftovers, spoiled foods
- Paper bags, paper napkins, paper towels, paper cups, paper take-out containers and take-out boxes (with no plastic or wax coating, with metal removed), coffee filters, tissues are acceptable.
- Pizza boxes





What you should avoid putting in the organic container

What are the most common wood, painted wood, and metals

- Aluminum
- Animal carcasses
- Cigarette butts & ashes
- Clothing
- Diapers
- Dirt
- Glass
- Hazardous waste Kitty litter
- Landscape timbers
- Liquids
- Medical waste
- Metal
- Pet waste
- **Plastic bags or film**
- Plastic containers
- Plastic Straws
- Rocks
- Soil
- Styrofoam
- Trash
- Treated or painted lumber
- Tree stumps
- Treated or painted wood
- Wine corks





Thank you



EDCO

edcodisposal.com

"We'll Take Care of It"

On the Road to Zero Waste

UC SAN DIEGO SURPLUS SALES PROGRAM

Sustainability and landfill diversion gains using a business-based disposal organization.

surplus.ucsd.edu



STEVE VAN DUINE

STORES SUPERVISOR, IPPS SURPLUS SALES

ROBUST SURPLUS OPERATION: AN ESSENTIAL STEP FOR SUSTAINABILITY

Fulfills policy requirements for disposal of state/ public funded materials and equipment.

Promotes reutilization within the UC system and the UCSD campus.

Ensures environmental compliance.

Financial benefits from large volume contracts.

Greater controls on data security when decommissioning electronic data processing equipment. The “last line” of defense!

Alignment of goals with sustainability programs.



A LITTLE HISTORY...

1983 Surplus Sales consists of 1500 square foot metal building, Ford Courier pickup, 1 FTE and 1 Part-time student worker.

Monthly sales \$1500, leading sale items IBM Selectric typewriters. 32 items sold.

12 pickup requests per month average.

Visit in person or phone call to check stock.

Occasional classified ads in newspaper or trade publications.



CURRENT STATE

18,000 square foot total warehouse space (15,000 sf yard, 6000 sf covered).

6 FTE, 3 temporary employees.

Monthly sales average \$150K.

Fleet (2) 20ft box trucks, (2) Flatbed trucks, 1 pickup.

Max Forklift Capacity 15k lbs.

100% self-funded from 55/45 split consignment.

200-400 pickup requests per month.

FY23 sold material adds up to 400,000lbs.

Items listed on surplus.ucsd.edu and 3rd party nationwide websites like govdeals.com.



REUTILIZATION WITHIN UCSD : INTER-DEPARTMENT SALES

UCSD departments are allowed priority screening-can pull items from bid for reutilization on campus, must pay bid price.

Campus departments are given “trial period” to test equipment.

Lab equipment and furniture are leading categories resold back to the campus.

Delivery, planning, and setup is available for campus buyers.

Furniture is cleaned, re-keyed and installed at the new location by UCSD surplus.

73,000lbs of material re-utilized within UCSD in FY23.



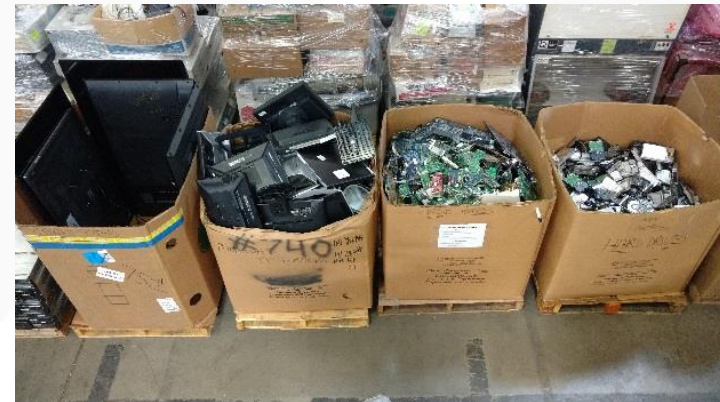
UNIVERSAL WASTE (E-WASTE) RECYCLING

All electronics are separated into several categories to increase value, remove salable components, check for data storage and inventory numbers.

R-2 certified vendors vetted by our EH&S department bid on each load. UCSD has had no e-waste disposal fees for the last 10 years and sees returns on this program.

All unwiped drives crushed on site.

195,000 lbs recycled in FY23.



METALS RECYCLING

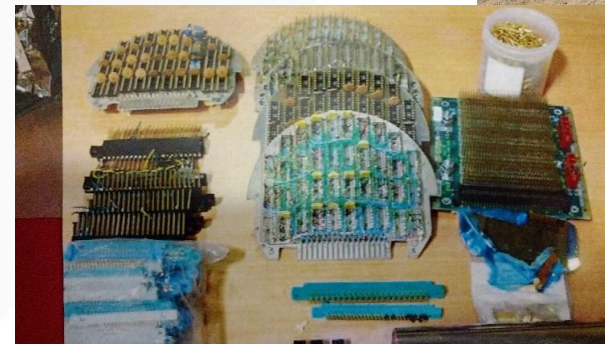
Steel is king, amounting to almost 280,000 lb last year—mostly light sheet steel as found in office furniture. Relatively low value, we attempt to minimize handling costs. Transported in roll-off container sized loads.

Other metals recycled in significant quantities are: copper, brass, aluminum, stainless steel, lead (including batteries) and zinc.

Precious Metals: Currently gold and platinum.

Gold is usually extracted from electronics boards and components (high content boards are extracted from Ewaste stream). Platinum is removed from electrical contacts in electrophoresis cells and other electrode bearing items.

300,000 lbs of metals recycled in FY23.



CAMPUS PARTNERSHIP

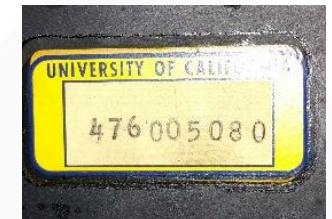
Facilities and equipment planners involve Surplus when scheduling large remodels, capital renewals, etc.

Environment Health & Safety ensures safe decommissioning of lab equipment and advises on potential hazards. Vets e-waste vendors and maintains “clearance tag” program.

Equipment inventory determine title status of surplus equipment, research ID tags at disposal events, we report asset tags found in e-waste stream (65 last year).

Sustainability Group provides guidance on latest initiatives, helps with exposure of the surplus program, “markets and advocates” the cause of recycling and re-use.

Surplus Sales effectively diverted over 1 million pounds of excess / scrap material through our various recycle and sale programs last FY! Thank you to our campus partners!



CONTACT INFORMATION

Thank You!

We appreciate your participation in this town hall.

For information regarding surplus sales please visit our website at surplus.ucsd.edu

Contact us via email at surplus@ucsd.edu

Reach us by telephone at 858-534-2844



HDH WASTE REDUCTION & ZERO WASTE MEASURES



ANDY HATTALA

SUSTAINABILITY COORDINATOR, UC SAN DIEGO HOUSING, DINING, AND HOSPITALITY

Zero Waste @ HDH

WELCOME TO THE COMMUNITY!

A Presentation By:

UC San Diego

HOUSING • DINING • HOSPITALITY
Sustainability



Zero Waste Initiatives

Building & Custodial Services
Facilities and Building Services
Dining Services HDH
Sustainability

EcoNauts

- Zero Waste Interns
-



Building & Custodial Services



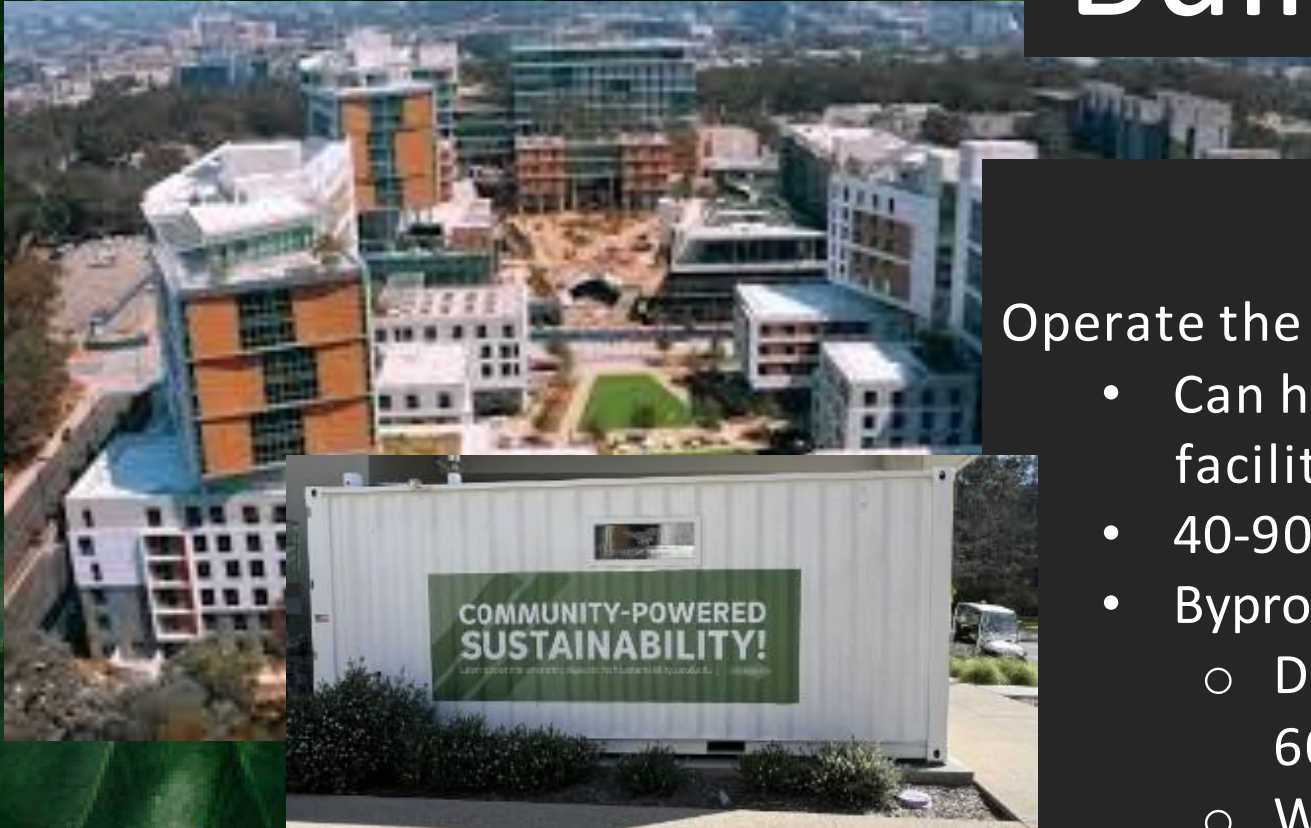
Supporting EcoNaut initiatives and programs

Program Supplies Drop Off

- Mason Jars
- Yogurt Containers



Facilities & Building Services



Operate the anaerobic digester @ Sixth

- Can handle food waste from Sixth College facilities
- 40-90 lbs of food waste digested per session
- Byproducts:
 - Digestate for landscaping 500-600BTU/cubic foot
 - Working to maximize usage

Exploring installation of additional digester

Dining Services

Eliminated single-use plastics*

- Researching most sustainable food wares and accessories for Catering
- Reviewing Market products for sustainable packaging

Triton2Go Program

- Only reusable food container program of its kind
- Includes reusable utensils
- Investigating additional reusable foodwares- bowls and cups
- 739,704 single-use containers diverted from landfill since launch



Dining Services Continued

Results of waste reduction efforts:

- No plastic bags
- 2.7 million single-use containers diverted
- 18 million single-use utensils diverted
- 12 million single-use cups diverted
- 409,000 straws diverted



Composting Program Expansion

- Compost Drop Off Locations established @ 7th Market and Canyon Vista
- 35lbs/wk per site of pre-consumer waste diverted
- Student-led in consultation with Dining and Sustainability
- Other sites being considered



All HDH

Expanding and maximizing onsite

pre-consumer composting

- More drop off locations
- Adding composting where feasible

Identifying pilot locations

Planning for composting in all HDH facilities

Make post-consumer composting available
and then refine program



HDH Sustainability Office

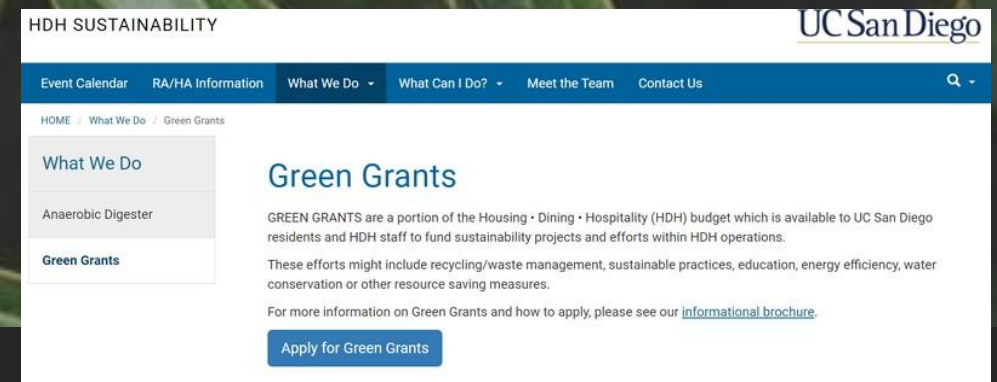
The Office Itself

- Zero waste office
 - Office composting
 - Sustainable purchasing
 - Upcycle activities and drives



Sustainability Funds

- HDH Green Grants Program
 - Available funding for sustainability-related projects within HDH
 - Available to residents, staff, or sponsored students
 - Details on HDH Sustainability website



HDH SUSTAINABILITY UC San Diego

Event Calendar RA/HA Information What We Do What Can I Do? Meet the Team Contact Us

HOME / What We Do / Green Grants

What We Do

- Anaerobic Digester
- Green Grants**

Green Grants

GREEN GRANTS are a portion of the Housing • Dining • Hospitality (HDH) budget which is available to UC San Diego residents and HDH staff to fund sustainability projects and efforts within HDH operations.

These efforts might include recycling/waste management, sustainable practices, education, energy efficiency, water conservation or other resource saving measures.

For more information on Green Grants and how to apply, please see our [informational brochure](#).

[Apply for Green Grants](#)

HDH Sustainability EcoNauts Programs

- Developing complementary zero waste activities to programs

- Tote bag decorating
- Make your own tote bags
- Planting in upcycled pots



- Revamped Waste Sorting Program

- More comprehensive
- Includes props
- Includes e-waste drop off



- Additional waste reduction programs

- Sustainable Living
- Thrifting Events
- Water Conservation



- Redesigned Sustainability Orientation Module

- Emphasis on waste sorting and zero waste living



HDH Sustainability EcoNauts Campaigns

- Develop new comprehensive waste sorting signage

- Develop waste reduction campaigns
 - Move In and Move Out
 - Utilize all available media



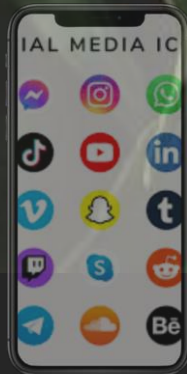
Collaborate with Zero Waste Interns

- Waste Sorting Campaigns
- Composting Campaigns Zero
- Waste Campaigns



HDH Sustainability Zero Waste Interns

- Conduct waste sorting survey
 - Assess waste sorting knowledge of HDH residents
 - Results pending
- Conduct waste audits
 - Assess and showcase contamination and improper sorting
 - Display findings and inform campaigns
- Develop waste sorting, composting, and zero waste campaigns
 - Develop social media content
 - Develop programs, trainings, and workshops
 - Collaborate with EcoNauts and partners



HDH Waste Sorting Survey

Take the survey!

Survey ends this month!



HDH Waste Sorting Survey

Join us in achieving zero waste at UCSD.

We're gathering information.

Feedback matters.

WE WANT TO HEAR FROM YOU!

GOING ZERO WASTE

WASTE SORTING SURVEY

SCAN HERE FOR SURVEY

QR CODE

The poster features a blue background with white and yellow accents. It includes icons for a trash bin, a recycling bin, and a person recycling. A yellow speech bubble contains the text 'WE WANT TO HEAR FROM YOU!'. A yellow circle with radiating lines contains the text 'GOING ZERO WASTE'. A smartphone displays a green recycling symbol and the text 'WASTE SORTING SURVEY'. A blue button with a yellow arrow points to a QR code. The background has wavy blue lines and yellow stars.

HDH Sustainability

Zero Waste Training
Currently Available

HDH Sustainability Coordinator, Andy Hattala, is available to present on zero waste living, working, and learning for beginners and ALL


Presented at WellFest this year



Zero waste is a collaborative journey not a sprint...

"We're all in this together."

Proper waste sorting is integral to diversion and zero waste.



Refuse what you do not need; reduce what you do need; reuse what you consume; recycle what you cannot refuse, reduce, or reuse; and rot (compost) the rest.

We don't need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly." - Anne Marie Bonneau

THANK YOU

UC San Diego

HOUSING • DINING • HOSPITALITY
Sustainability



SSC FOOD SCRAP DROP-OFF PROGRAM



JULIANNE LUONG

DIRECTOR OF FOOD JUSTICE, STUDENT SUSTAINABILITY COLLECTIVE

● ● ●

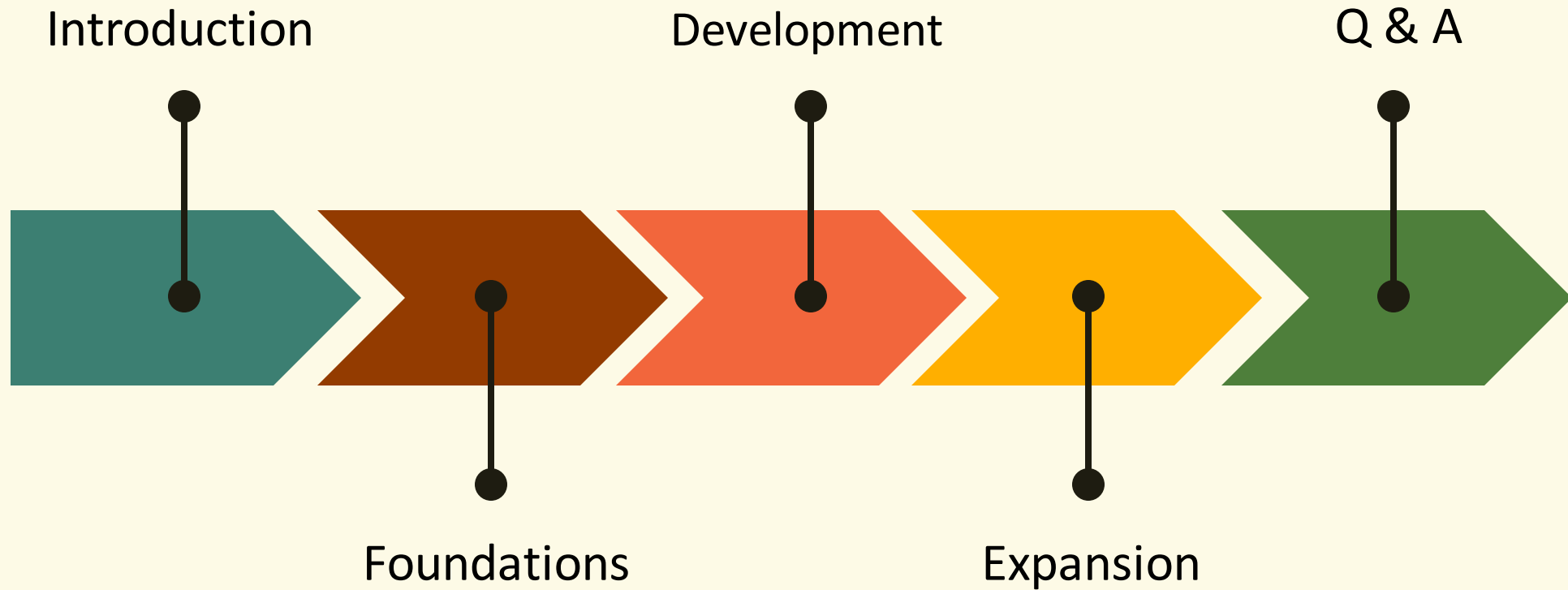
Food Scrap Drop-Off Program

By Julianne Luong

Director of Food Justice at the Student Sustainability Collective



Roadmap



What is the

Student Sustainability Collective?



- Independent commission under Associated Students: directors and interns
- **Purpose:** educate peers, advocate for change, create resources/programs, fund sustainability efforts
- **7 different campaigns:** food justice, energy and waste, corporate accountability, urban development and transportation, civil and human rights, public health

My role within the SSC - think about food!

- Food justice organizations
- Food-related resources
- Promoting sustainable food consumption
- Composting and waste diversion education and programs

Foundations

Be grateful!

Enter: UCSD

SYN 2

TA support

SSC





Step 1: Research - if I wanted change, I had to become an expert

- SB 1383, EDCO, Zero Waste Plan, other universities
- Past and existing infrastructures: HDH and 7th Market, Tiny Bin Tim, gardens, AD
 - What works and what doesn't?
- Connecting with staff/faculty: Craig Callendar, Jeffrey Summerhayes



Project Development



Step 2: Data Collection

Experiment at 7th Market

Will students sort correctly given educational signage?

Interest Poll

Would people actually sign up for this?



Project Development

you give us food scraps, we compost them for you.

INTERESTED?
LET US KNOW WITH THIS
1 QUESTION POLL!



COMPOSTING = CLIMATE ACTION

	FOOD WASTE IN LANDFILL	→	METHANE	→	ACCELERATED CLIMATE CHANGE	
	COMPOSTING FOOD WASTE	→	NO EMISSIONS	→	FIGHTING CLIMATE CHANGE	





Step 3: Logistics + Proposal

Proposal for an Opt-In Student Composting Program

Background

The Importance of Food Waste Diversion

Food waste diversion is reallocating food waste from landfills to other sites, such as commercial composting sites, community gardens, or anaerobic digesters. Food diversion into these alternative sites is especially important now, for as the latest Intergovernmental Panel on Climate Change reports, immediate action is needed to minimize the impact of climate change. Within these landfills, food waste releases methane, a potent greenhouse gas ("Basic Information about Landfill Gas", US EPA). As a leading institution in climate change research, UCSD has a responsibility to prioritize cutting GHG emissions throughout every sector. The opt-in student composting program that we are advocating for is a step in the right direction to enact sweeping change across UCSD's food system.

What systems are in place right now?

According to the 2019 Zero Waste Plan, all markets and dining halls on campus have food waste bins, or even anaerobic digesters, that kitchens use to divert all the pre-consumer food waste they create. These bins get picked up and transported by Republic Services to go to a commercial composting system (UCSD Sustainability). A member of our proposal team works for HDH at Seventh Market, where she observed that there are excess food waste bins that stay in the back of the store not being used. These are *only* open to employees, but UCSD is filled with students who want to compost but do not have the means. As noted by the Zero Waste Working Group, the small campus gardens take very specific compostable scraps, but these gardens are far apart, restrictive, understaffed, and inconvenient to the average busy college

- Logistics: opt-in for student buckets, add to HDH pre-consumer food waste
- Rejection --> back to the drawing board
 - Keep it student centered
- Partner with student gardens and Chris Johnson, connected with Andy and Pamela
- Logistics (part 2): Location, labor, funding, marketing, management

Project Development

**You give us food scraps,
we compost them for you.**

we heard you and we're making it happen!

REGISTER WITH QR CODE
or visit bit.ly/3wcdRtD



you'll receive a **FREE BUCKET** to collect your scraps

once your bucket is full, empty it out at **SEVENTH MARKET**

student gardeners at **ELLIE'S GARDEN** will use it to compost

CARE FOR OUR EARTH:
food waste in landfills releases **METHANE** (CH₄) [a potent **GREENHOUSE GAS** that accelerates climate change]




UC San Diego SEVENTH COLLEGE Seventh College Student Council

UC San Diego HOUSING • DINING • HOSPITALITY Dining Services



HOW TO TAKE CARE OF YOUR BUCKET

Thank you for caring about your waste! This PDF will give you all the tips, tricks, and info you should know to make it as easy as possible.

DO'S	DON'TS
<ul style="list-style-type: none"> plant material: fruits and veggies coffee grounds eggshells/nutshells teabags paper products without grease plain bread, rice, pasta 	<ul style="list-style-type: none"> meat, fish, bones eggs, dairy fats, grease, sauce anything cooked with excessive oil/sauce "compostable" plates, utensils, straws, bags plastic




The Student Sustainability Collective

How do I avoid a stinky bucket?



here's our advice:

EMPTY YOUR BUCKET FREQUENTLY (once every 3 days)

KEEP THE LID CLOSED

RINSE AFTER EVERY USE for a fresh bucket!



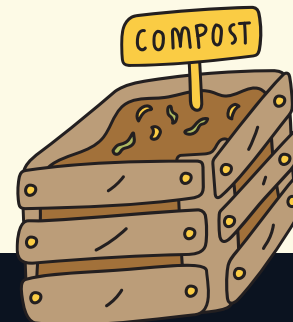

Step 4: Registration and launch!

After a year of work, it finally became a reality!

Where is the program now?

- Steady collection at Seventh College
- Expanded to Warren College
- Planning for expansion to Marshall College

**We've collected and composted
~600 lbs of waste!**



**You give us food scraps,
we compost them for you.**

Program by the Student Sustainability Collective

REGISTER WITH QR CODE
or visit
bit.ly/sscbuckets



you'll receive a **FREE BUCKET**
to collect your scraps

once your bucket is full,
empty it out at
**COMPOST DROP-OFF
STATIONS**

**STUDENT
GARDENERS**
will use it to compost

CARE FOR OUR EARTH:
food waste in landfills
releases **METHANE** CH_4
(a potent **GREENHOUSE GAS** that
accelerates climate change)

please share this
flyer to spread the
word!

UC San Diego
HOUSING • DINING • HOSPITALITY
Dining Services

It's been a team effort:



Veronica, Simon, Noura, Evan

Ella, Rain, Sam
Hailey, Abby (not pictured)



My working group (not
pictured):
Alissa Lun, Miriam Lopez,
Samantha Amantea, Monet
Bernard



Thank You!

@sscucsd on
Instagram

sscucsd@gmail.com
ssc-food@ucsd.edu



NEXT STEPS

Feedback

- We aim to get representation from our diverse campus community.
- You can express your comments, ideas and questions via survey on our town hall website.
- **Future Town Halls Covering Various Sustainability Topics**

UC San Diego