

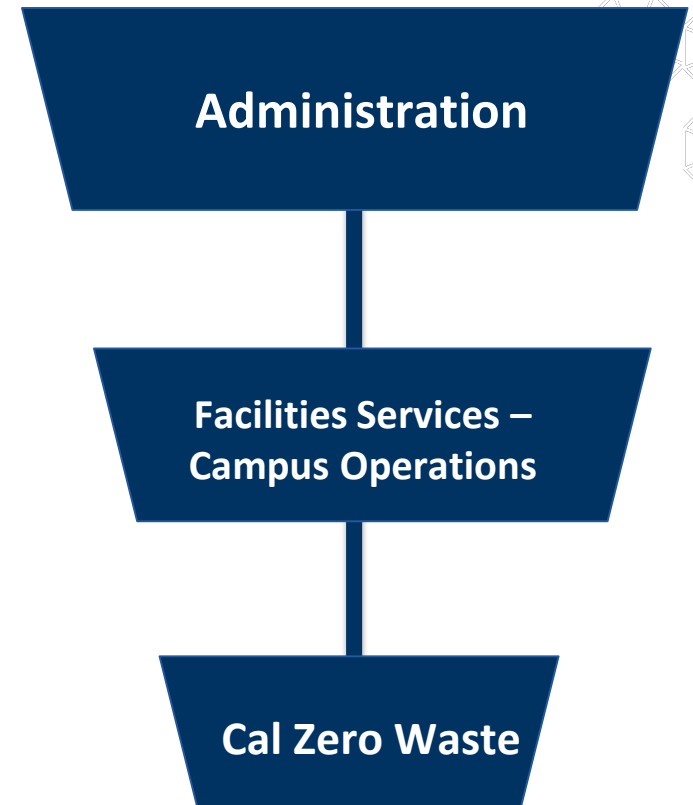


Zero Waste for Industrial, Commercial and Institutional Facilities

December 1, 2020
Lin King
Zero Waste Manager
UC Berkeley

Cal Zero Waste: Who Are We?

- Zero Waste Manager
- Operations Supervisor
- Operations Coordinator
- Truck Drivers
- Zero Waste Specialists
- Zero Waste Custodians
- P/T student staff
- Zero Waste Technicians



UC Berkeley Zero Waste Keys

- Zero Waste in a Covid19 World
- Policies
- Infrastructure and Signage (Right Sizing/ Standardization)
- Metrics
- Communication and Education
- Designing/ Leadership

How To Be Zero Waste in a COVID-19 World

FAQ



If the virus can spread from surfaces - are disposable products safer than reusable ones?

Due to the nature of consumer and worker behavior, no, COVID-19 can be found on both disposable and reusable materials, and plastic is one of the materials on which it survives longest.¹

TIP #1

BYO Cup

Make coffee at home and bring it to campus in your reusable mug to avoid spreading germs.

Keep your reusable bottles clean, and if using an automated water refilling station, make sure to not touch the bottle to the filling station nozzle.



TIP #2

Bring Reusable Masks

Rather than using a single-use disposable mask, use a reusable mask and wash it.



TIP #3

BYO Foodware

Bring your food in reusable containers along with reusable cutlery, instead of eating take out.

If you eat out, use your own reusable utensils instead of the restaurant's disposable ones. Afterwards, make sure to sort your waste correctly!



TIP #4

Wash Your Hands

When you can choose between using gloves or using your bare hands, choose to use your bare hands and wash them with soap for 20 seconds.² If you must use hand sanitizer, UC Berkeley will offer centralized stations as an alternative to single-use bottles.



ZERO WASTE 2020 & BEYOND

reduce • reuse • recycle • compost

zerowaste.berkeley.edu

Sources:

¹ <https://www.npr.org/2020/04/15/826616166/berkeley-zero-waste>

² <https://www.wsj.com/articles/how-reactly-do-you-catch-covid-19-there-is-a-growing-consensus-159237650>

Flyer inspired by <https://www.urstreamsolutions.org/blog/plastic-pollution-reuse-and-covid-19>

Policies Overview

| | | | |
|------|---|------|---|
| 1989 | Assembly Bill 939: Cities and Counties Reduce Waste by 25% by 1995 Reduce Waste by 50% by 2000 | 2011 | AB 341 (Chesbro) Jobs and Recycling Recycling at least 75% by 2020 |
| 1999 | Assembly Bill 75: State Facilities Reduce Waste by 25% by 2002 Reduce Waste by 50% by 2004 | 2014 | SB 1826 (Chesbro) Organics Recycling Requirement for Businesses & Schools |
| 2003 | UC Sustainability Policy Reduce Waste by 50% by June 2008 Reduce Waste by 75% by June 2012 Zero Waste by 2020 | 2016 | SB1383 Short-Lived Climate Pollutant Reduction: Organic Waste Methane Emissions Reductions (2016) |
| 2006 | AB 32 California Global Warming Solutions Act of 2006 Reduce GHG Emissions to 1990 levels by 2020 (90% of organics by 2025) | 2018 | Sustainable Packaging for the State of California Act of 2018 |
| | | 2018 | City of Berkeley Single Use Foodware & Litter Reduction Ordinance |



UC Single Use Plastics Elimination Policy Aug 2020

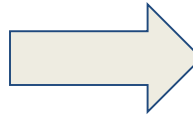
- Jan. 1, 2021: Plastic bags in retail and food service establishments will be eliminated
- July 1, 2021: Single - use plastic dining accessories (e.g., straws, utensils, stirrers) will be eliminated and replaced with local compostable or reusable alternatives, with exceptions for accessibility needs.
- July 1, 2022: Dine - in facilities will provide reusable food service items (e.g., plates, cups, clamshell containers) for food consumed on site and to - go facilities will provide reusable or locally compostable alternatives.
- Jan. 1, 2023: Campus food service operations will phase out the purchase, sale and distribution of single - use plastic beverage bottles. To support this change, UC locations are encouraged to install water refill stations.

UC Berkeley Single Use Plastics Elimination Policy

- Championed by CALPIRG in 2019-2020 academic year, signed by Chancellor Christ in April 2020
- Campus-wide commitment to eliminate all non-essential single-use plastic by 2030
- Roadmap Product Categories:
 - Office Supplies, Food Service, Retail, Labs, Facilities, Promotional Items / Giveaways / Swag, Universal Waste (batteries), E-waste, & Packaging.
- Roadmap Goals
 1. Create a plan towards achieving the elimination of all non-essential single-use plastic with viable alternatives by 2030.
 2. Share with other universities and institutions to highlight ways they can reduce their single-use plastic usage.

Zero Waste Building Program Infrastructure

1. Bin Standardization
2. Signage
3. Outreach and Education



Zero Waste Outdoor Program Infrastructure



Campus Bins



The Mini-Bin System

Mixed Paper Recycling

Recycling 1 ton of paper (200 full mixed paper bins):

- Saves 17 trees & 7,000
- Saves 3.3 cub yards of landfill space



Not using bag liners for 200 mini-bins saves the equivalent of 2 gallons of gas

One full mini-bin costs Cal money to send to landfill



Over 90% of office waste is divertible!



The Mini-Bin

- Promotes reuse
- Eliminates odors and pests

Use me again and again and again!



One full mixed paper bin generates revenue for Cal

Promotes recycling and waste reduction!

Zero Waste at Events and Venues



Metrics

- Compost and landfill materials disposed of on campus



| LoadData | Customers | Routes | Trucks | Drivers | Products | Assets | Events | Maps |
|--|----------------------|-------------|---------------|---------|-----------|--------|-----------------|----------------|
| 1000 LoadData records WHERE: All Records | | | | | | | | |
| Menu | Select a Data Filter | Close | Add | Edit | Info | Map | Delete | Filters Export |
| Pickup Time | Upload Time | Customer | Customer Name | Load | Container | NVW | Service Type | Product |
| 6/13/19 12:18:28 PM | 6/13/19 12:23:32 PM | --unknown-- | --unknown-- | -3 | 0 | 0 | --unspecified-- | |
| 6/13/19 11:54:30 AM | 6/13/19 12:02:47 PM | --unknown-- | --unknown-- | | | 4123 | --unspecified-- | |
| 6/13/19 9:47:05 AM | 6/13/19 9:55:23 AM | --unknown-- | --unknown-- | -5 | 119 | 4123 | --unspecified-- | |
| 6/13/19 9:46:35 AM | 6/13/19 9:55:23 AM | --unknown-- | --unknown-- | 49 | 75 | 4123 | --unspecified-- | |
| 6/13/19 9:43:33 AM | 6/13/19 9:45:01 AM | --unknown-- | --unknown-- | 30 | 81 | 4074 | --unspecified-- | |
| 6/13/19 9:40:23 AM | 6/13/19 9:45:01 AM | --unknown-- | --unknown-- | 46 | 77 | 4044 | --unspecified-- | |
| 6/13/19 9:40:01 AM | 6/13/19 9:45:01 AM | --unknown-- | --unknown-- | 8 | 104 | 3998 | --unspecified-- | |
| 6/13/19 9:39:42 AM | 6/13/19 9:45:06 AM | --unknown-- | --unknown-- | 37 | 77 | 3990 | --unspecified-- | |
| 6/13/19 9:38:57 AM | 6/13/19 9:45:06 AM | --unknown-- | --unknown-- | 27 | 90 | 3953 | --unspecified-- | |
| 6/13/19 9:38:41 AM | 6/13/19 9:45:06 AM | --unknown-- | --unknown-- | 67 | 57 | 3926 | --unspecified-- | |
| 6/13/19 9:29:58 AM | 6/13/19 9:34:48 AM | --unknown-- | --unknown-- | 77 | 80 | 3859 | --unspecified-- | |
| 6/13/19 9:14:29 AM | 6/13/19 9:24:19 AM | --unknown-- | --unknown-- | 30 | 95 | 3782 | --unspecified-- | |
| 6/13/19 9:14:12 AM | 6/13/19 9:24:19 AM | --unknown-- | --unknown-- | 50 | 129 | 3752 | --unspecified-- | |
| 6/13/19 9:13:35 AM | 6/13/19 9:13:58 AM | --unknown-- | --unknown-- | 39 | 140 | 3702 | --unspecified-- | |
| 6/13/19 9:13:18 AM | 6/13/19 9:13:58 AM | --unknown-- | --unknown-- | 70 | 87 | 3663 | --unspecified-- | |
| 6/13/19 9:05:25 AM | 6/13/19 9:14:03 AM | --unknown-- | --unknown-- | 47 | 62 | 3593 | --unspecified-- | |
| 6/13/19 9:04:55 AM | 6/13/19 9:14:03 AM | --unknown-- | --unknown-- | -7 | 128 | 3546 | --unspecified-- | |
| 6/13/19 9:04:01 AM | 6/13/19 9:14:03 AM | --unknown-- | --unknown-- | 21 | 86 | 3546 | --unspecified-- | |
| 6/13/19 9:03:12 AM | 6/13/19 9:03:33 AM | --unknown-- | --unknown-- | -9 | 109 | 3525 | --unspecified-- | |
| 6/13/19 8:58:10 AM | 6/13/19 9:03:33 AM | --unknown-- | --unknown-- | 12 | 86 | 3525 | --unspecified-- | |
| 6/13/19 7:46:44 AM | 6/13/19 7:50:35 AM | --unknown-- | --unknown-- | 69 | 99 | 3513 | --unspecified-- | |
| 6/13/19 7:46:14 AM | 6/13/19 7:50:35 AM | --unknown-- | --unknown-- | -24 | 172 | 3444 | --unspecified-- | |

Communication and Education

- Custodial Services
- Landscape Services
- Residence Halls
- Building Occupants
- Students



TRUE Platinum Certification Connie & Kevin Chou Hall

- Using a building as a beacon of zero waste to motivate the campus



TRUE Platinum Certification

Connie & Kevin Chou Hall

- Educational Activities/ Waste Audits/ Leadership
- Design (Bulk bins/ No Landfill/ Catering)
- Reusable Towels for Cleaning



Questions?

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