

Waste Diversion Plan

2015



UC MERCED
triplezero
zero net energy. zero landfill waste.
zero net greenhouse gas emissions.

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Introduction



UC Merced has a commitment to achieve zero landfill waste by 2020. The Waste Diversion Plan is intended to be a living document that can be used as a guide to help reach this goal and meet the mandates of the California Integrated Waste Management Act.

Definition

Waste diversion is the process of diverting material from the landfill in order to prevent waste generation. Waste diversion includes reducing, reusing, recycling, composting and converting waste to energy.

Service Areas

This Waste Diversion Plan applies to all waste generated within the main UC Merced Campus. It also includes several off campus locations including Castle, Promenade and the Mondo building.

Background

Local Waste Management

The Merced County Regional Waste Management Authority operates a landfill located 7 miles from the main campus. The facility accepts mixed recycling, but plastics are limited to bottles and jugs. They also compost grass, leaves, trees and wood.

The Modesto Compost Facility is 47 miles from the main campus. They are the closest location that accepts pre-consumer and post-consumer food waste. They do not accept compostable plastics at this time.

American Recycling is located in Modesto, 43 miles from the main campus. They accept paper, cardboard, plastic film, mixed rigid plastics and Styrofoam.

Universal Service Recycling is located in Merced, 7 miles from the main campus. They process scrap metal, glass and aluminum.

Policy and Regulatory Framework

The University of California Sustainability Practices Policy has three goals for diverting solid waste from landfills:

- 50% by June 30, 2008
- 75% by June 30, 2012
- 100% by 2020 (zero waste)

AB 939 Integrated Waste Management Act, 1989:

- 25% by 1995
- 50% by 2000

AB 341 Mandatory Commercial Recycling, 2011:

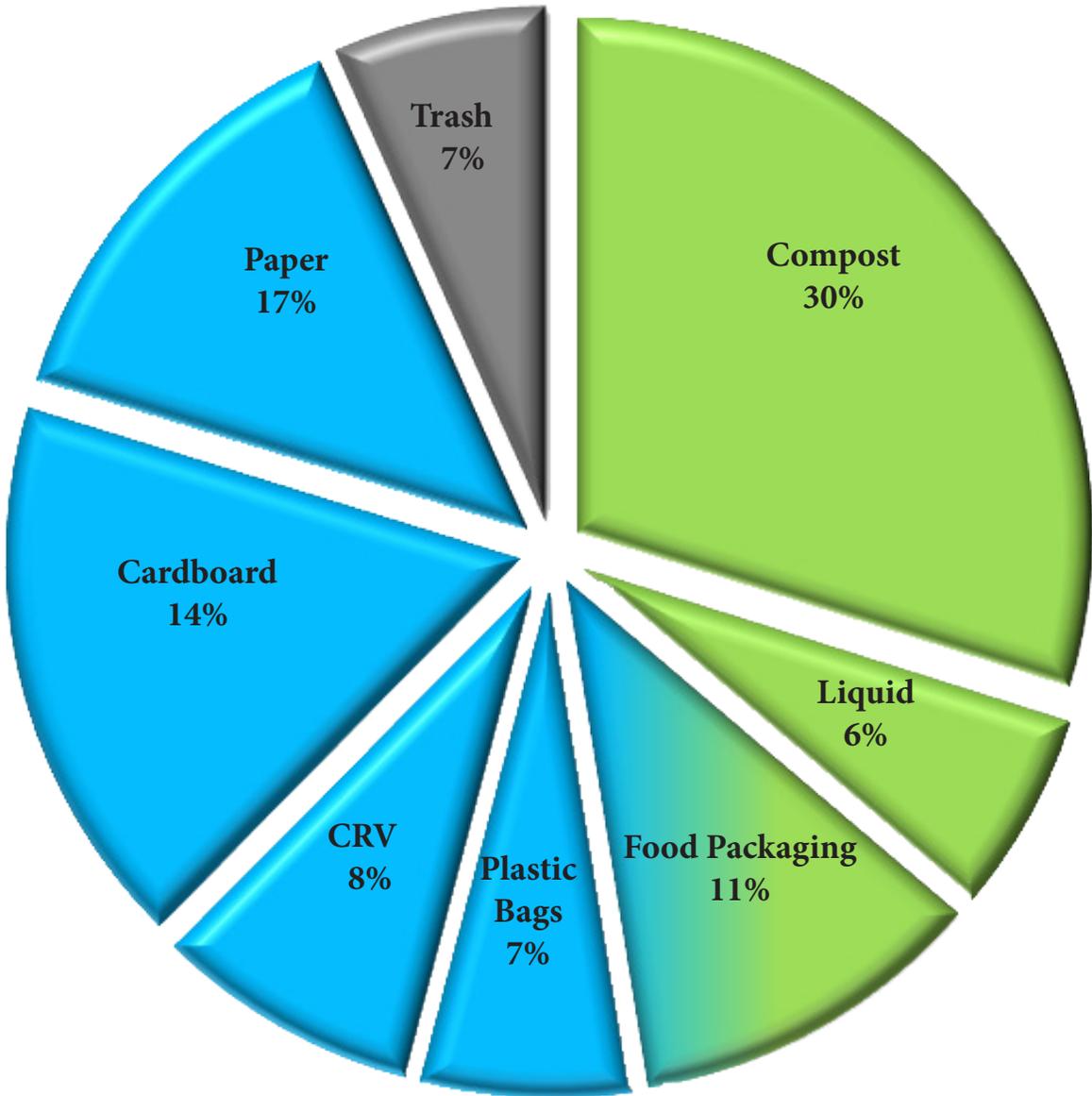
- 75% recycling rate which includes composting

Waste Audit

(Excluding housing, dining and construction)

April 3, 2014

Total
1644.56 pounds

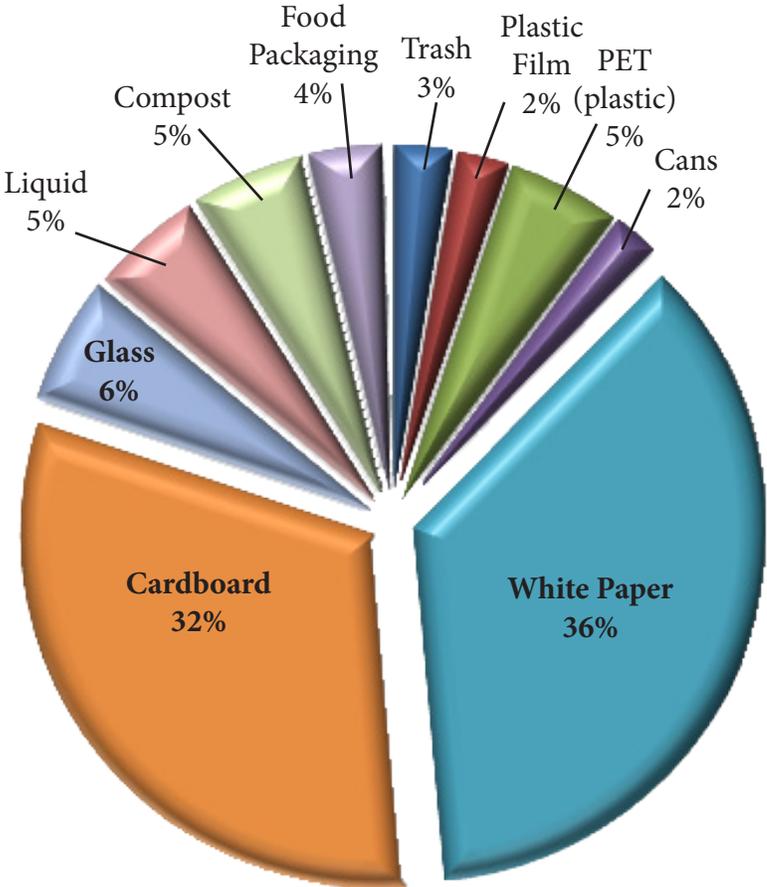
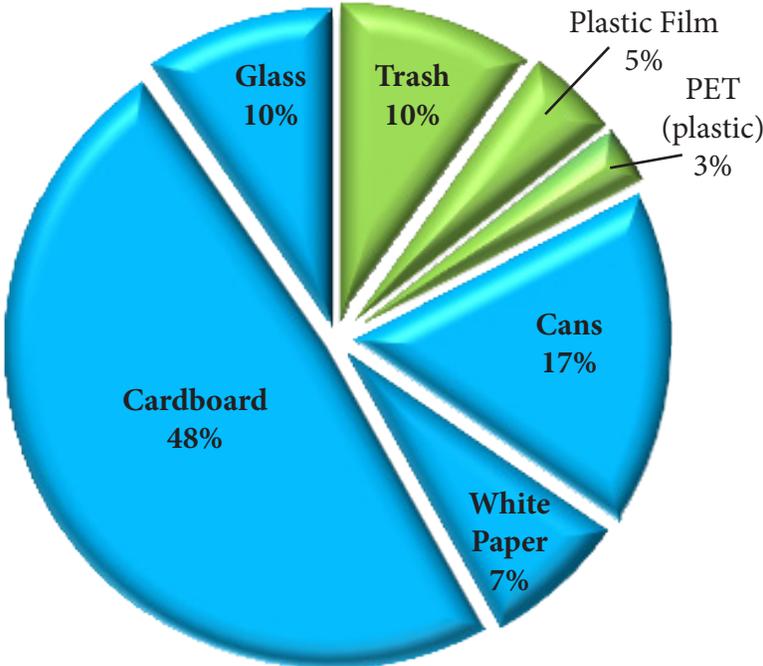


Waste Audit

(Excluding housing, dining and construction)

April 3, 2014

Landfill 936.48 lbs

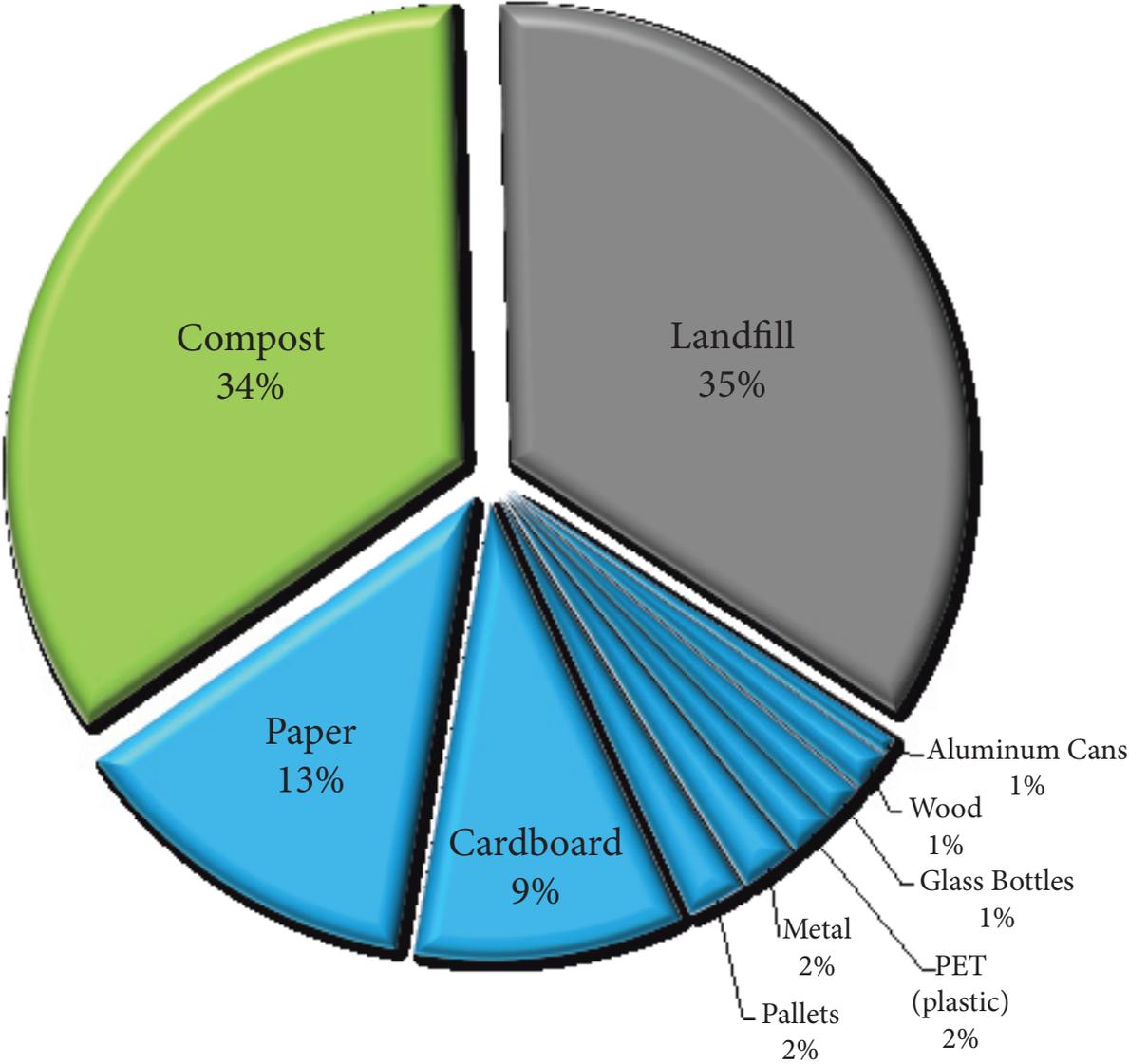


Recycle 691.72 lbs

Total Calendar Year Weights

(Excluding housing, dining, and construction)

UC Merced 2014



Total Recycle	31%	167,920 lbs
Total Compost	34%	184,800 lbs
Total Landfill	35%	186,160 lbs

Existing Programs

Sorting Line and Single Stream Recycling

A single stream system is used for recycling plastic, paper, metal and glass, including plastic bags and expanded polystyrene (Styrofoam). A team of ten students collect recycling and landfill from several designated areas from around campus and bring them back to the sorting location. Students work on a conveyor system to manually sort the waste daily. After the waste has been sorted, it is brought to the appropriate local vendor, or is picked up by the campus contractor. Since the implementation of the sorting line in the summer of 2014, the campus diversion rate has increased significantly. The sorting line has only been implemented for six months, and estimated diversion has increased nearly 40%. This process provides a detailed look at the actual waste produced on campus, since the errors from incorrect bin placement are negated.

BigBelly Waste and Recycling System

The campus has purchased six sets of solar powered compactors from BigBelly. They have been custom labeled and have detailed signs that improve the clarity of how to sort waste. The BigBelly systems are aesthetic which cause them to be treated respectfully, and encourages individuals to be more conscious about waste. Virtually all other waste receptacles on the main outdoor paths have been removed, so the majority of the campus can easily access the BigBelly systems. The BigBelly systems are connected to the campus internet, so the recycling team can constantly monitor the fullness level of each bin. This allows the recycling team to pick up waste only when necessary and allows a more efficient collection system.

Source Reduction and Reuse Initiatives

Motion activated paper towel dispensers help reduce excess waste by controlling the length of paper towel dispensed. Dyson Airblade hand dryer systems are installed in a few locations and will be implemented in all new buildings.

OZZI containers are a reusable clamshell for food taken to-go. In the Dining Commons, the only options are reusable plates or the OZZI container. OZZI containers have been implemented to cut down on food packaging. The only other option for to-go containers

Existing Programs Cont.

are compostable paper plates and compostable paper cups.

Battery recycling containers are located in offices of several buildings on campus. The recycling staff picks up the batteries which are then sent to a recycler.

Florescent lights are collected by facilities staff and brought to the loading dock. The recycling staff packages the lights then ships them to a recycler.

Ink jet, toner cartridges, lights and ballasts are collected by mail services staff and brought to the loading dock where they are packaged and shipped by the recycling staff.

E-waste is collected by facilities staff and stored in a warehouse where it is later collected by an e-waste recycler.

Surplus items are collected by facilities staff then stored at a warehouse and eventually sold at an auction to encourage reuse.

Food packaging in the Lantern Café has been modified to better suit our goals. Additionally, the Lantern Café gives a discount for bringing your own cup or mug.

Composting

There are a variety of compost sources on campus. Pre-consumer food waste is collected in the kitchen by dining staff and placed outside in green 32 gallon rolling bins. The paper towels from the restrooms are gathered daily. The BigBelly systems are picked up periodically. There are custom bins in the Lantern Café with compost, and the remainder of campus compost is generated while sorting through the landfill waste. Paper napkins and compostable food containers are included with the food waste. The recycling staff collects the bins and bags, and then brings them to a 35 yard open top roll-off. A cart lifter is used to dump the food waste into the roll-off. The waste is then picked up by Modesto Compost Facility.

Another compost roll-off is used to collect yard waste and grass clippings, which is also picked up by the Modesto Compost Facility.

Future Programs

Eliminate Paper Towel Waste

Future elimination of paper towels can be achieved by using a energy efficient hand dryers such as the Dyson Airblade in all restroom facilities on campus.

Source Material Consolidation

To achieve zero waste all materials entering the campus must be recyclable or compostable. Since we are unable to compost bioplastics and do not have a local recycling market for bioplastics, we must work with campus departments in order to eliminate purchasing bioplastics. All food related paper products must be compostable and not be plastic coated.

Food and Compost Program

Instead of outsourcing compost, compost will be processed on campus. Dining Services plans to grow various types of food on campus and sell it in the Dining Commons. Compost from our facility will be used to fertilize the crops.

Mini Bins

All offices will have small blue bins for recycling with black sidesaddles for trash. The bins will be unlined in order to reduce overall waste generated. Waste stations, which consist of one large compost, one recycle and one landfill bin, will be spread throughout office areas. Individuals will be responsible for taking their compost out to the waste station.

Education

All new employees are required to attend an orientation session. This allows the recycling staff to meet new employees and help them understand sustainable practices at UC Merced. The recycling staff also gives presentations to new students as a guest speaker for the CORE 1 class.

The recycling team hosts an Earth Day Festival in April. Students and staff can play games and visit booths for a chance to win prizes. The games facilitate an interaction between recycling staff and the campus, which promotes an educational environment for the campus to learn about the correct recycling procedures on campus.

Special events have recycling staff involved in the planning and operation to ensure maximum waste diversion. Compost and recycling bins are monitored by recycling staff at events such as Bobcat Day, Staff Appreciation and First Fridays.

Media

The recycling team has an active social media presence that engages the campus and other recycling and sustainability groups around the country.

Website: <http://recycle.ucmerced.edu>
Facebook: [UC Merced Recycles](#)
Youtube: [UC Merced Recycles](#)
Twitter: [UC Merced Recycles](#)
Pinterest: [UC Merced Recycle](#)