



# Academic & Residential Partnerships in Composting

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# CONTEXT AND HISTORY



Total Student Population:	30,700
▪ First Year Students:	7,200
▪ International Students:	8.3%
▪ In-State:	62%
▪ Living Off Campus	73%

**41%** of incoming students indicate that chose CU, in part, based on its sustainability reputation.

**86%** say it's important for CU Boulder to have a strong commitment to environmental sustainability.

**92%** state that they want to be environmentally sustainable.

## Challenges

- Very small returning resident population
- Large campus environment
- Decreasing State Funding → Limited budget
- Student tendency to “Go Rogue”

# WASTE STREAM MANAGEMENT

## Consistent, Color Coded Signage

- Easy to understand, picture based reference.
  - Makes process easier for students with primary languages other than English.
- Easy tracking for staff as bags are also color coded.
  - This makes misplaced bags easy to spot.

## Can Parity

- Compost bins are accompanied by landfill & recycling when possible
  - Helps prevent contamination due to laziness or lack of a felt alternative.
  - Makes different streams readily apparent to students/staff.
  - Allows for best consistent education of accepted items.

## Building Specific Design

- Tailored bin designs to meet the individual needs of the space,
  - Work with building proctors to ensure satisfaction and adherence to building ascetics.
  - Many buildings employ a cabinet for waste collections, these vary by building.
  - Default bin is a Rubbermaid Slim Jim® bin in green.



# WASTE STREAM MANAGEMENT

## Zero Waste Partnership Structure

- Facilities Management, HDS, and Environmental Center
- Meet Bi-Monthly to ensure smooth operations and outreach.

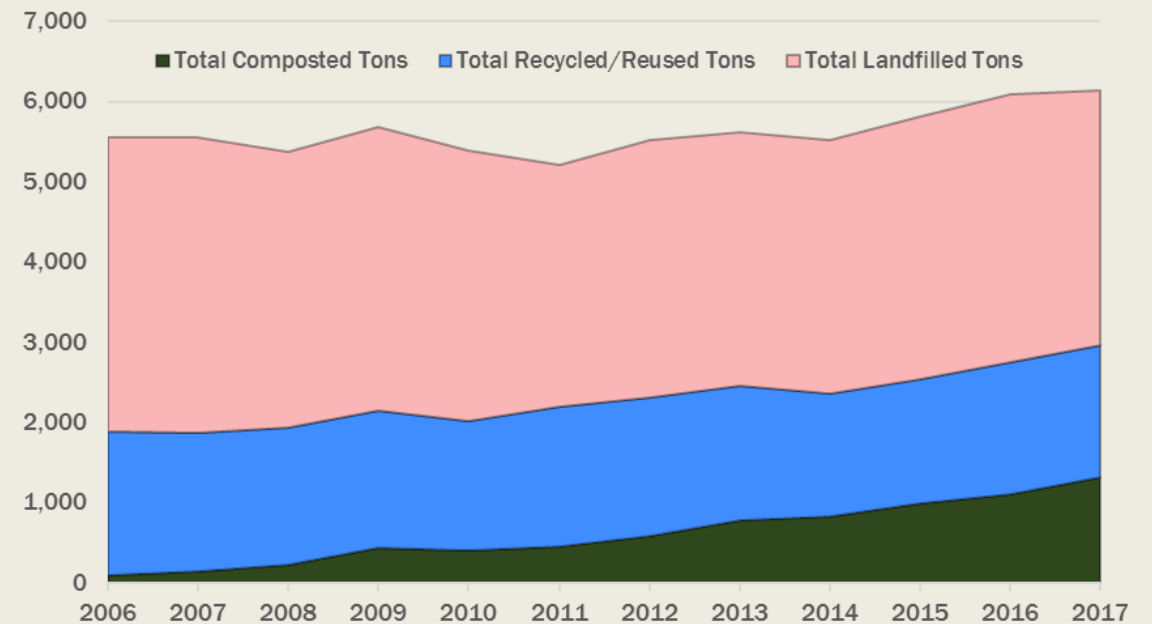
## Waste Management Structure

- On Campus Recycling Center
- Internal Hauling/Sorting for Recycling
  - Discussion of expanding this to compost long term, but not yet implemented.
- Residential buildings contract with external vendor.
  - Students take Landfill / Recycling to docks

## Campus Wide Goals

- 90% Diversion by 2025
- 48% Current Diversion FY2017 (2,958 / 6,134)

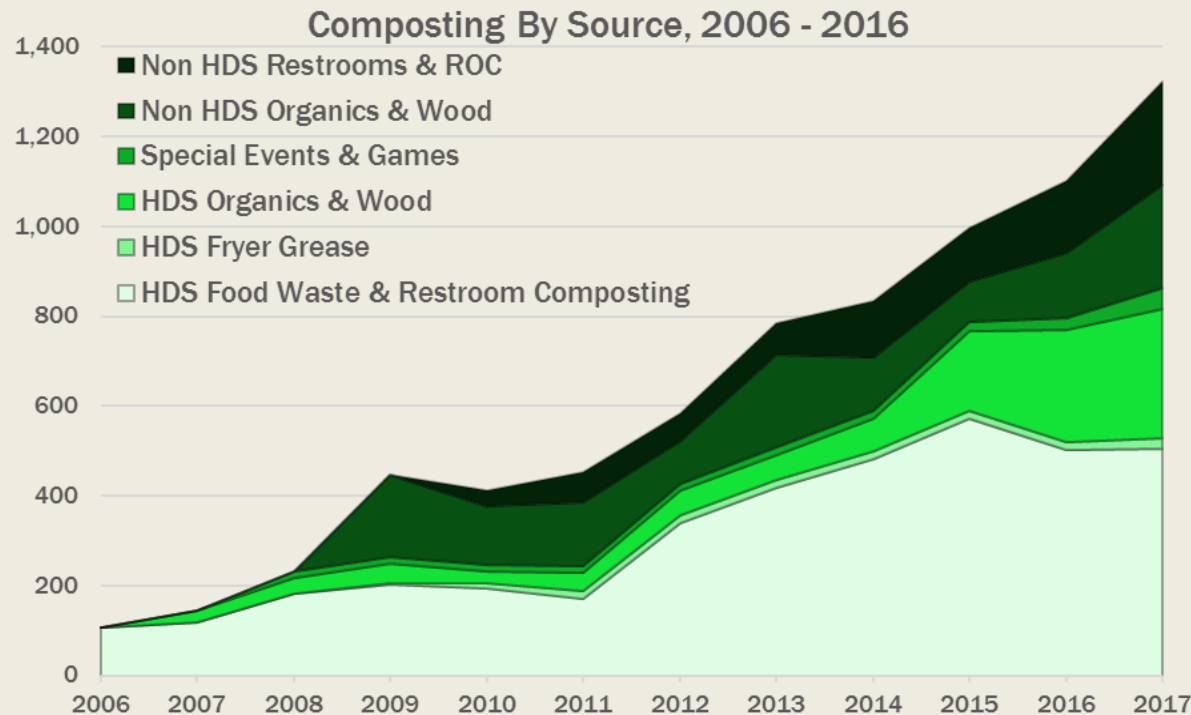
Waste Tracked in Tons, 2006 - 2017



# WASTE STREAM MANAGEMENT

## '13 Campus Waste Audit: Diversion Potential

- Food Waste: 28%
- Compostable Paper: 10%



## Compost Timeline

- Academic Buildings: Start with the hardest!
- Residence Halls: Slow expansion, lots of outreach!
  - Started with a student run pilot – too difficult logistically

## Composting Infrastructure

- Back of House at all sit-down dining facilities
- Restroom Composting serviced by ES Staff
  - 18 Academic Buildings
  - 5 Residence Halls
  - Children's Center: External Vendor provides environmental service support here, we provide collection point at dock.
- Dock collection points serviced by external vendor and taken to industrial compost site

# EVENT COMPOSTING

## Event Composting

- Important educational precursor to expansion of composting.
  - Exposes all campus students and staff to composting procedure in a controlled environment with lots of signage
- Large events require an event form, easily amended for compost support provided by ZW outreach team.
  - Taste of CU, Graduations, Etc.
  - Eventually a Zero Waste Events Coordinator was hired.
- For smaller events, RPS provides it's units and buildings with event composting bins and bags.
- RPS also partnered with Dining to provide bulk compostable supply ordering for plates, cups, etc. for any event.



**In 2016, RHA passed legislation requiring  
ALL Hall Council events to be ZW.**



# EVENT COMPOSTING

Implemented in Basketball and Football Stadiums.  
All public food and beverage services in Football Stadium have converted to recyclable or compostable materials and containers.

**Reached 85% Diversion over course of season!**



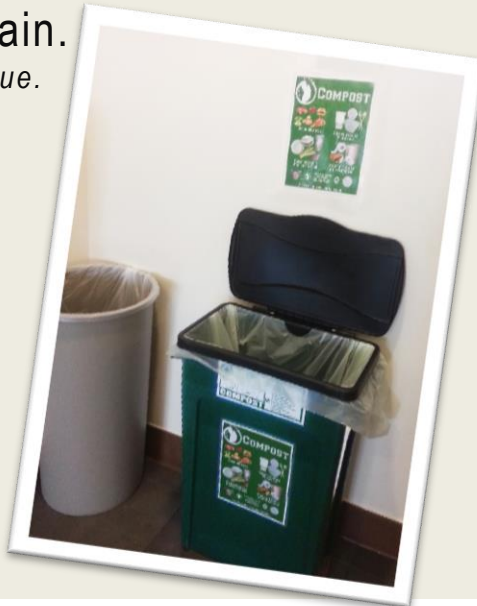
There are no trash containers -- only recycle and compost containers -- throughout the outdoor public areas of Folsom Field.

Volunteers are heavily utilized to sort.

# RESTROOM COMPOSTING

## Why Restrooms?

1. Paper towels provide a direct need for compost.
2. Labor neutral expansion; already serviced daily.
3. Higher air exchanges/hour than other areas.  
*Smells were a concern, but have not been an issue.*
4. Floor finish is tile with a floor drain.  
*Spills were a concern, also have not been an issue.*
5. Everyone has to see it!
6. Sinks in case someone wants to rinse their mini bin or dishes after emptying food waste.



## Funding

Funding for pilot expansions has come from our CU Sustainable Grants Program

- Student overseen grant funds.
- Initial costs have often been covered by these one time grants, with ongoing costs internalized by facilities services within Housing

Parts and Labor	Quantity	Cost Per Part	Subtotal
Composting Bins	40	\$42.00	\$1,680
Composting Bin Lids	40	\$35.00	\$1,400
Compostable Bags (case/ per year)	50	\$82	\$4,088
Educational Campaign (mostly signage)	1	\$300	\$300
<b>TOTAL per building</b>			<b>\$7,468</b>

*\*set up costs associated with a ~400 bed residence hall*



# EDUCATION AND OUTREACH



## Green Office Certification

The faculty/staff campus program is coordinated by the Environmental Center and has two components:

- Department Eco-Leaders (Individuals)
- Green Office Certification (Departments)

## New Employee Orientation

Always includes sustainability materials.

- Within HDS, NEO features waste training
- Working to implement video training

# EDUCATION AND OUTREACH

## Recycling Ambassadors:

EcoReps and volunteers staff the waste areas during move in!



**Recycling Round Up:** Paid students and EcoReps go door-to-door in every building throughout September and October, asking residents if they want help sorting their waste.



## Green Room Certifications:

1/1 meetings between residents and trained student staff.





# LESSONS LEARNED

**In 2015-16, 18% (1,106 tons) of CU Boulder's total waste was composted rather than sent to landfill.**

## **Successes**

- Location and Can Parity!
- Events!
  - Engage Student Government!
- Collaboration!
  - Residence Life / RAs
  - Environmental Center
  - Housing Facilities
  - Environmental Services
  - Dining Services
- Change Management!
  - Work with staff to manage work load and take feedback early on

## **Early Challenges**

- Student run composting was not viable long term
- Staff Training
  - Early loads rejected due to contamination from improper staff sorting
- Setting Expectations
  - Compost will not magically solve existing problems
  - Compost will likely experience some contamination
  - EVERYONE is needed to make this successful
  - Established lines for communicating issues early
- What does success look like?