



# **CASE STUDY: GLENDALE COMMUNITY COLLEGE**

ZERO WASTE PROGRAM

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# ABOUT GLENDALE COMMUNITY COLLEGE



- Glendale Community College (GCC) offers innovative higher education curriculum in 100 associate degree, certificate and transfer programs, workforce development and career re-training courses.
- GCC is the largest of 10 colleges in the Maricopa County Community College District with 11,410 FTE students.
- The GCC main and north campuses spread across 227 acres with 49 buildings (925,198 sq. ft.) consisting of 325 classrooms, laboratories, and common areas and 750 office spaces.



# ORGANIZATIONAL STRUCTURE



# COMMITMENT TO SUSTAINABILITY



- GCC's President, Dr. Irene Kovala, was one of the first leaders in the Maricopa County Community College District to sign the American College & University Presidents' Climate Commitment (ACUPCC). Dr. Kovala also serves as one of chairs on the **District Sustainability Council**.
- **Green Efforts Committee** - Founded in 2008, the committee is comprised of faculty, staff, students and community members working towards the needs of a more sustainable campus.
- **Glendale Environmental Club** - Student club committed to promoting awareness & sustainability in the community.
- **Sustainability Board** - The decision makers regarding campus sustainability initiatives. Reviews recommendations from the Green Efforts Committee and Glendale Environmental Club.



# GCC RECYCLE PROGRAM

- February 2010 – GCC Recycle Program Founded
- Introduced Commingled Recycling
  - Converted Single Stream Bins to Commingled
  - Added Decals to Recycle Bins
- Bin Acquisition – 325 Classrooms, Hallways & Common Areas
  - Keep America Beautiful & Coca-Cola 2010 Recycling Bin Grant (75 Bins)
  - Alcoa Foundation 2013 Recycling Bin Grant (75 Bins)
  - Scottsdale Community College Surplus (100+ Bins)
- Outdoor Recycle Stations (54 Stations)



# THE TINY CAN CONCEPT



- The New York Times website featured a blog on how Dartmouth College was reducing waste with tiny trash cans:  
[http://green.blogs.nytimes.com/2011/07/12/with-tiny-cans-a-new-trash-equation/?\\_r=0](http://green.blogs.nytimes.com/2011/07/12/with-tiny-cans-a-new-trash-equation/?_r=0)
- Dartmouth College reduced overall waste and increased recycling by one third.
- This concept was presented to the Green Efforts Committee and Facilities Management as a waste minimization initiative.

What if...

## With Tiny Cans, a New Trash Equation

By JOANNA M. FOSTER JULY 12, 2011 4:38 PM



Reaching for a petite dessert dish instead of the mixing bowl may help you curb your ice cream consumption. Grabbing a basket rather than a shopping cart helps control how many “necessities” you pick up at the store.

Similarly, trading your office garbage can for a daintier disposal bin may remind you to send less trash to the landfill.

In June 2010, faculty, staff and administrators at Dartmouth College in New Hampshire had their desk trash cans replaced with six-inch-tall cartons. One year later, Dartmouth has sent 200 less tons of trash to the landfill, and recycling is up by one third.



Dartmouth College Rosi Kerr, Dartmouth College's sustainability director.

It's a simple strategy. Every desk gets one large “zero sort” recycling box for paper, glass, aluminum and plastic and one tiny trash tub for whatever cannot be recycled, which at Dartmouth is essentially a few types of drink lids and certain types of plastic bags and packaging materials. When the trash tub reaches its meager capacity, the owner has to empty it at a disposal area.



# GCC RECYCLE PROGRAM



- March 2011 - Introduced Zero Waste Pilot Program
  - Recruited 200 Volunteers – 27% Participation
- Introduced Rethink. Recycle. Campaign
- Switched to Revolution Bag Blue Liners
- Bin Standardization in Classrooms
- January 2013 - Zero Waste Program Expansion
  - Recruited 350 Volunteers - 73% Participation
- March 2014 - Recycle Bins for All Office Spaces
- August 2014 - ALL-IN for Zero Waste
- Shifted Emphasis from Recycling to Waste Minimization
- 2014 & 2015– 7<sup>th</sup> Place in the Waste Minimization category of the RecycleMania Tournament

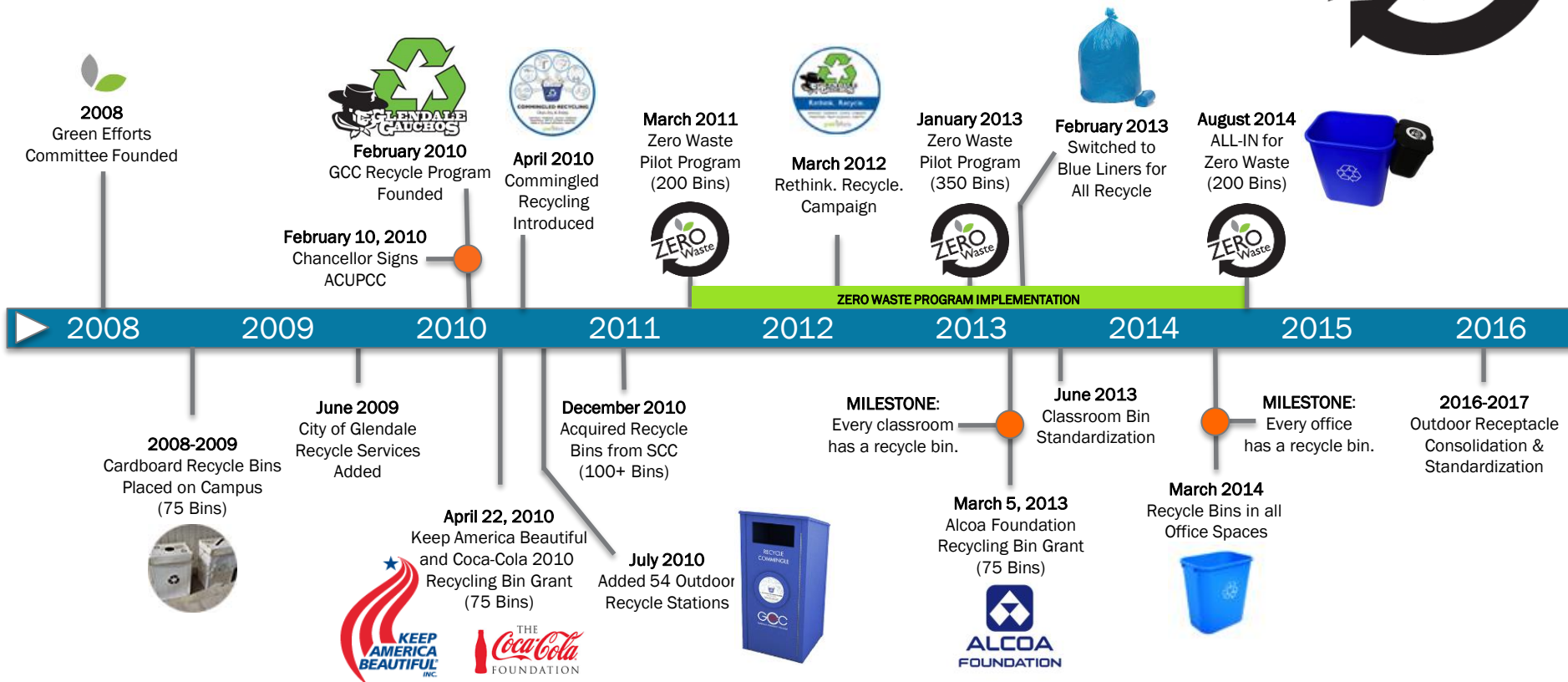


Before



After

# RECYCLE PROGRAM TIMELINE





# THE ZERO WASTE PROGRAM



- Zero Waste is an innovative program to “close the loop” on the waste cycle.
- The Zero Waste program is an initiative to:
  - minimize waste
  - maximize recycling
  - reduce consumption of non-recyclable items
- The program effectively promotes recycling and waste reduction efforts to the campus community by encouraging behavior change.



The size of the bin says it all...

waste less, recycle more!

# ZERO WASTE SUPPORTS SUSTAINABILITY



- **SIZE**

The bins are a visual reminder to reduce daily waste to less than the size of the bin and divert waste from the landfill by recycling more.



- **NO MORE LINERS**

The recycle and Zero Waste bins do not have plastic liners and can be rinsed clean, if needed.



- **LESS CUSTODIAL TIME**

Custodial services are not needed for waste/recycle bins in office spaces, freeing up valuable time to service classrooms and other areas.



# ZERO WASTE REDUCES COSTS



**750+** employee office spaces converted to Zero Waste  
– employees take responsibility for their own waste stream  
by servicing their own bins  
500+ hours custodial time = \$4,250/month saved

**15,000** monthly reduction in plastic liners used  
750 liners per day = \$350/month saved

**\$\$\$** increased cost-savings through waste diversion  
– all fees are waived for recycling  
2015 annual savings = \$10,600  
– look into revenue earning opportunities



# IMPLEMENTATION



## Steps to



### Step 1: Get a Blue Bin!

It all starts with recycling. Every office space gets a blue recycle bin. Educate the campus about what goes in the blue bin and ask employees to do their part to recycle more.



### Step 2: All-In for Zero Waste!

Start with a volunteer or pilot program to implement Zero Waste. Continue to replace trash receptacles with Zero Waste bins until you are ALL-IN for Zero Waste.



### Step 3: Close the Loop!

Reducing consumption of non-recyclable items is the final step to “close the loop” on the waste cycle. Implement other waste reduction initiatives (i.e. reusable cups and water bottle fill stations).

# SELF-SERVICE INSTRUCTIONS



- All recycle and Zero Waste bins in office spaces are self-service
- Provide common area receptacles for employees to empty bins
- Provide bin care instructions to keep bins clean



Employees take responsibility for their waste by servicing their own bins. Empty the bin contents into a common area waste bin.



Zero Waste = No Liners  
If you must line your bin, a brown sandwich bag is recommended. Simply trim the bag to fit the bin.

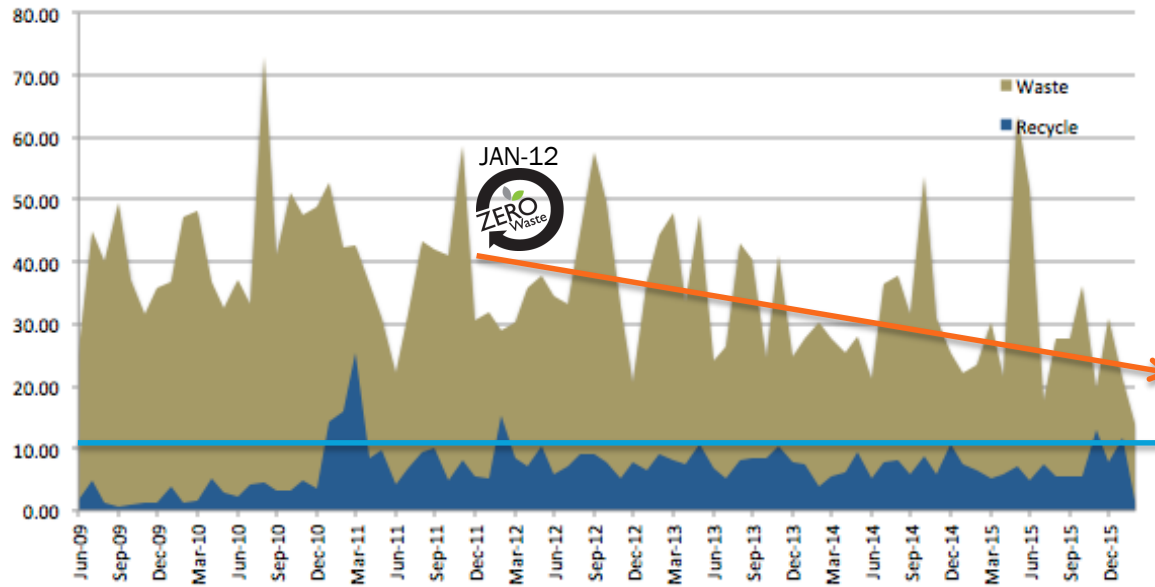


Clean bin by rinsing with soap and water or simply use a Chlorox wipe to clean and disinfect.



Service your bin before the weekend or scheduled time off.

# MEASURE PROGRAM SUCCESS



**24%**

waste reduction  
in 5 years  
(waste+recycle)

**20%**

waste diversion  
in 5 years  
(increase in recycle)



# WASTE/RECYCLE STREAMS



- Waste Compactor (Bagged Waste Only) – Municipal Waste Services
- Bulk Waste – Municipal Waste Services
- Commingled Recycling – Municipal Waste Services
- Cardboard – Cardboard Baler
- Paper – Document Destruction Services
- Bulk Metal – Metal Recycler
- Bulbs & Batteries – Hazardous Waste Recycling
- Writing Instruments & Inkjet Cartridges
  - Terracycle Recycling Brigades
- Waste Diversion (Furniture & Equipment) – Surplus Auction
- Miscellaneous eWaste – Electronics Recycling



# WASTE AUDITS



- The Green Efforts Committee hosts two annual waste audits:
  - **Recycle Dive - November (America Recycles Day)**
    - Volunteers sort through an entire day of recycling to determine the percentage of contamination in our recycle stream.
  - **Dumpster Dive – April (Earth Day)**
    - Volunteers sort through an entire day of trash to determine how much should have been recycled. Recyclables are source separated into paper, plastics, and metal.



# WASTE AUDIT RESULTS

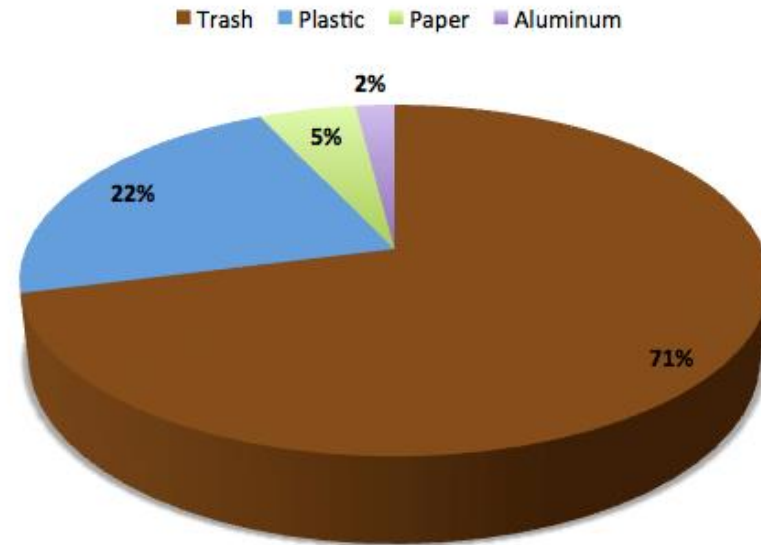


## ■ 2015 Dumpster Dive

- 22% waste comprised of recyclable plastics
- Paper in waste stream has decreased to 5%
- Less than 2% aluminum in waste stream

**GOAL** Get plastics out of the waste stream and into recycle bins.

## 2015 Dumpster Dive Results



# RECYCLE AUDIT RESULTS

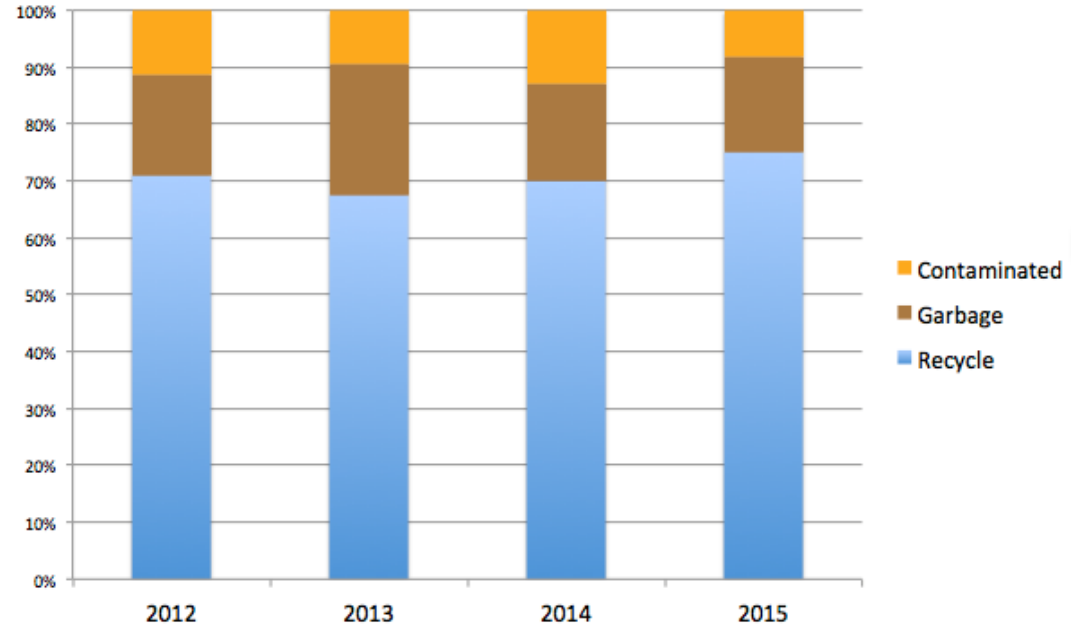


## ■ 2015 Recycle Dive

- 75% clean recyclables
- 16.7% waste in recycle stream
- 8.3% contaminated bottles/cans

### GOAL

Get students to empty liquids out of bottles and cans before recycling.



# TIPS FOR STARTING A MINI BIN PROGRAM



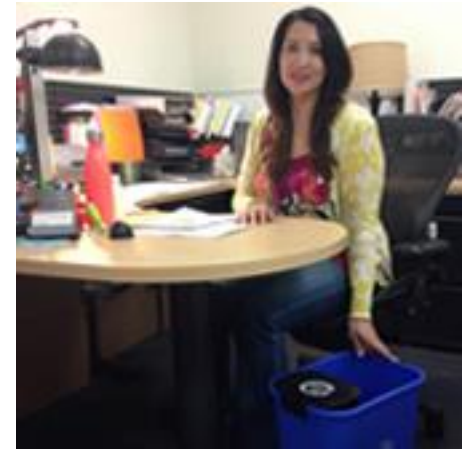
- Survey buildings and count office spaces
- Estimate funding needed to convert spaces to Zero Waste
- Develop an implementation plan (phased vs. full implementation)
- Custodial support is integral to program success
  - Distinguish between participating vs. non-participating offices
  - Not servicing bins in participating locations
- Standardize waste/recycle receptacles for common areas, hallways, employee workrooms, classrooms, etc.
- Secure administrative support for 100% implementation



# ANTICIPATE PROGRAM CHALLENGES



- Staff Limitations
  - Recruit volunteers to support your program
- Custodial Support
  - Distinguish between participating and non-participating offices
  - Zero Waste window cling used to identify participants
- Bin Abandonment
  - Zero Waste bins found in hallways
- Employees Purchasing New Trash Cans
  - Not serviced by custodial staff
- Address Outsourcing/Downsizing Rumors





# GOALS FOR ACHIEVING SUCCESS



- Annual Total Waste Reduction
- Consistent Waste Diversion Ratio of 25% or more
- Improvement to Waste/Recycle Audit Results
- Next Project – Outdoor Waste Receptacle Consolidation & Standardization  
200+ Receptacles / Converting 50% to Recycle



# MAKING A DIFFERENCE

- **Engage** your campus community
- **Educate** about recycling and waste reduction
- **Empower** employees to contribute towards a sustainable future

**Rethink** your waste stream.  
**“Close the Loop”**  
on the waste cycle.



**Recycle** what you can.  
**Zero Waste...**  
it makes a difference!

