



Taking Your Recycling Program to the Next Level

Ideas and lessons in building momentum and resources to expand your waste reduction and recycling program

May 15, 2014

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Agenda

Taking Your Recycling Program to the Next Level

Ideas and lessons in building momentum and resources to expand your waste reduction and recycling program

Speakers:

- Jen Jones, Facilities Coordinator, Office of Sustainability - **College of Charleston**
- Jennifer deHart, Staff Engineer / Sustainability Coordinator, LEED AP, CEM – **Virginia Military Institute**
- Chrissy Cooley, Sustainability Manager, LEED AP, MBA – **Pacific Lutheran University**
- Naina Ummat, MREM – **Dalhousie University**

Q& A (after the presentation)

Your Hosts!



Chrissy Cooley



Naina Ummat



Jennifer Jones



Jennifer deHart

Going from Nothing to Something

Jen Jones, Facilities Coordinator

Office of Sustainability

College of Charleston, Charleston, SC



COLLEGE of
CHARLESTON

OFFICE OF SUSTAINABILITY



College of Charleston

In Fall 2011

- No Data
- ~8% recycling rate
- No one dedicated to managing waste
- 1 full time person to pick up recycling for 73 buildings

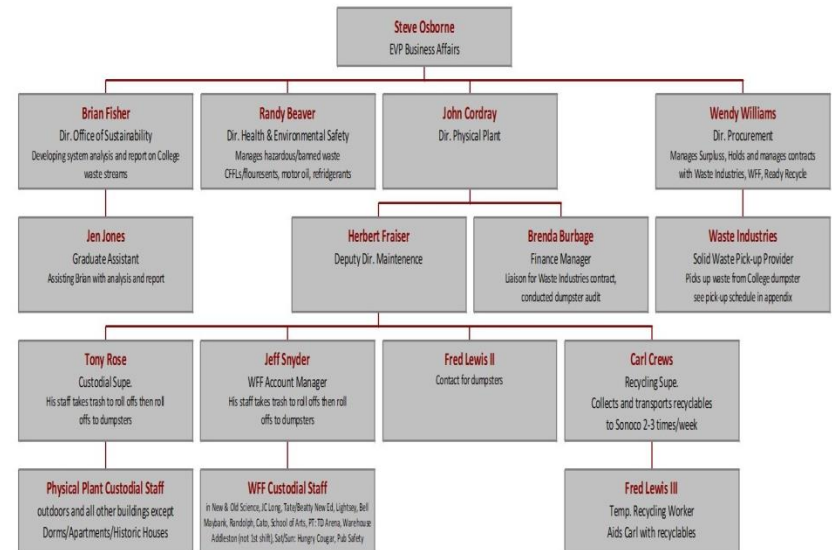
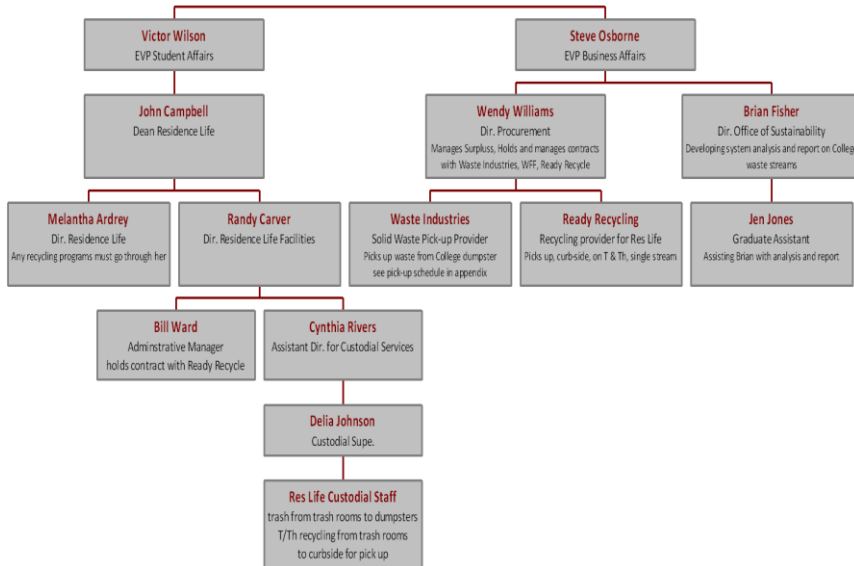
Meet Jen



Understand Your Organization

- How materials move through your institution
 - Conduct systems analysis for waste streams
 - System
 - Structure
 - Behavior
 - Meetings, ride-a-longs
- Identify challenges

Understand Who's Involved



Establish a Plan

Phase 1 – Efficiency

- Standardization
- Information
- Efficient Process

Phase 2 – Enhance & Expand

- Focus on Diversion
- More structure = more opportunities
- Data
 - Move-in/Move-out
 - Events

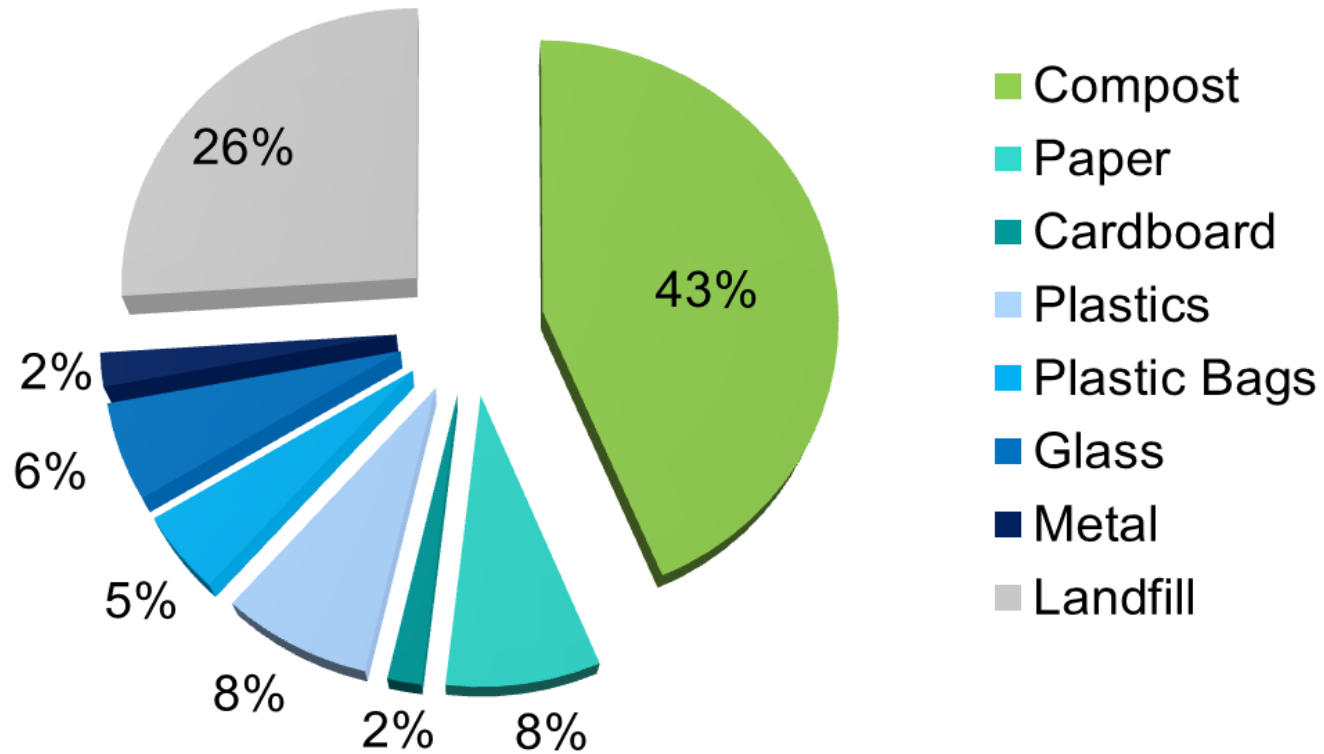
- Focus on improving rates

Phase 3 – Optimize

- Best strategy for removal
 - Internal
 - External
- Focus on diversion
- Purchasing
- Behavior

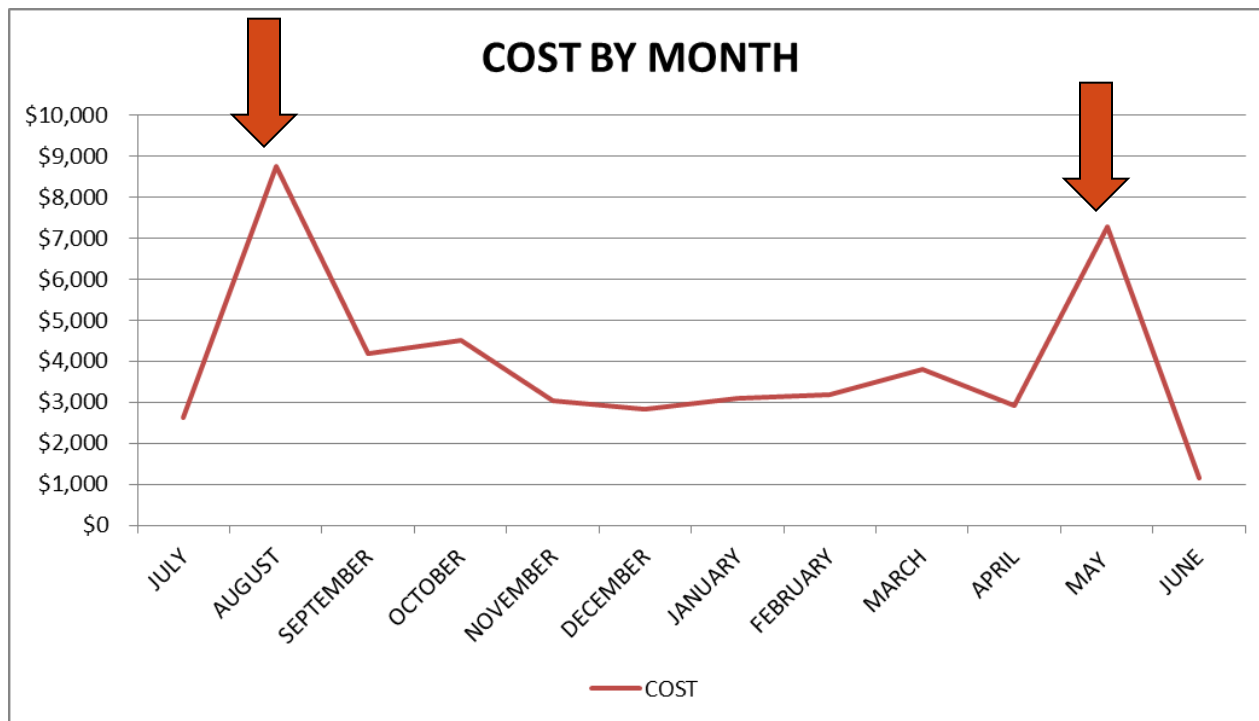
The Importance of Data

Data show focal areas



The Importance of Data

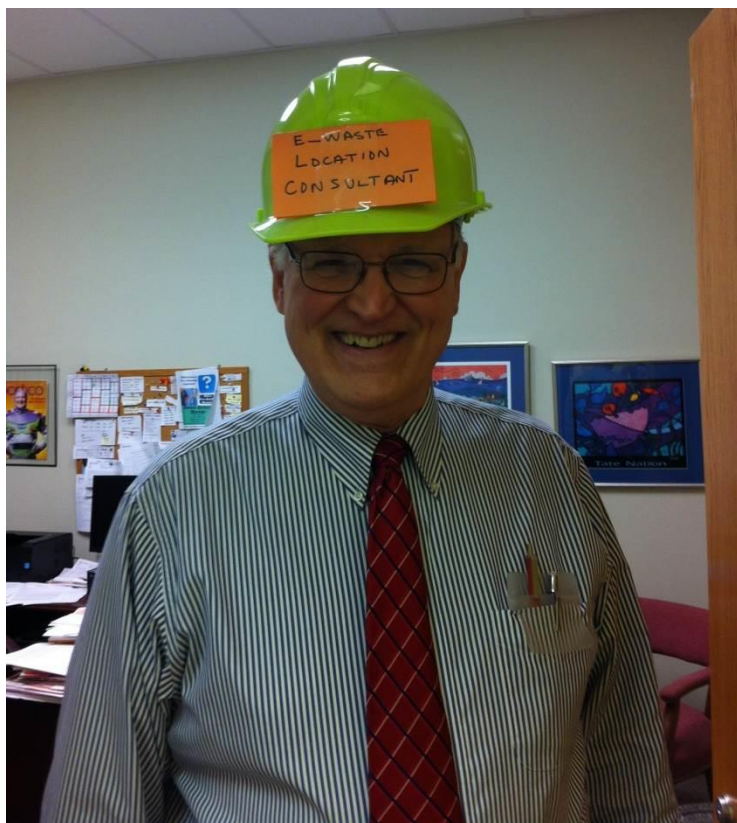
Data show focal areas



Look for Help

- **DHEC Collegiate Recycling Program**
- **Webinars**
- **Conferences**
- **Mentors**
 - Christine Cooley
 - CURC
 - Recyc-L Listserv
- **Laws and Regulations**
- **Grants**

Build Relationships



- Find your allies
- 1,000 cups of coffee
- Meet people where they are
- Collaborations

Get the Administration on Board

- A champion
- Meet them where they are
- Be careful with cost-savings talk
- Be persistent & strategic
- Timing is important
- Prove yourself

JUST DO IT!

- **People are busy, this is not their priority**
- **Learn when it's ok to ask for forgiveness rather than permission**
- **Get your hands dirty – lead by example**
- **Galvanize your allies – students, STAFF!, faculty**

College of Charleston

In Fall 2011

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College of Charleston

In Spring 2014:

- Facilities Coordinator (est. 2012) + 1 FTE, 1 PTE
- Tracking majority of our waste streams
- Composting front of house and back of house at 2 dining locations + auxiliary
- Specialty Recycling Program



College of Charleston

- FY13 14% recycling rate, 16% with composting (anticipating 20% FY14)
- Hosted 2 Zero Waste events





Still work to do!

- **20% is not a good recycling rate**
- **Satellite locations, C&D**
- **Building standardization**
- **Behavior**

Questions

Continuous Improvement at Virginia Military Institute

Jenny deHart
Sustainability Coordinator



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VMI Primer

Developing citizen-soldiers

- **1839; first state-run military college**
- **4-yr undergrad; BA, BS, STEM focus**
- **~1600 cadets; 100% residential**
- **134 acres**
- **1.5 M sq ft**
- **\$3 M utility + \$75 K waste budget**



Continuous Improvement

From Start to Re-start

- **Take Stock of Existing Assets**
- **Progress to Date**
- **Challenges: Internal and external factors, education, tracking...**
- **Recommendations**






Taking Stock

Become the program expert

- **Current processes**
- **Current containers**
- **360 degree view of material**
- **Existing assets and resistance**



Taking Stock

-  Trash 2yd (City → Landfill)
-  Trash Cmpct (Cont'r → Landfill)
-  Cardboard 8yd (Hauler → Recycler A)

Exterior Collection Process (2011)



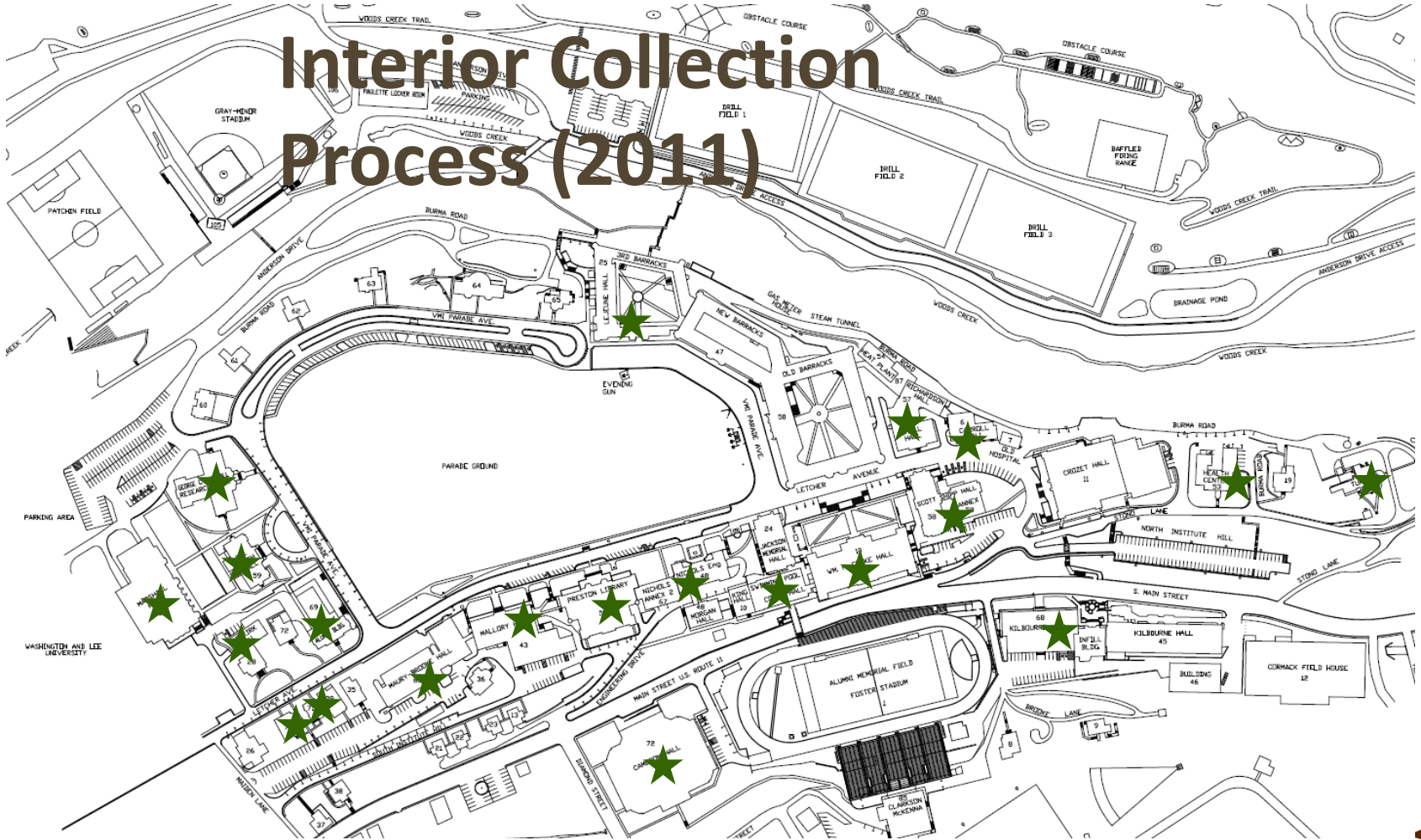
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Taking Stock

★ Paper (Supply → City)

Interior Collection Process (2011)



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Taking Stock Containers



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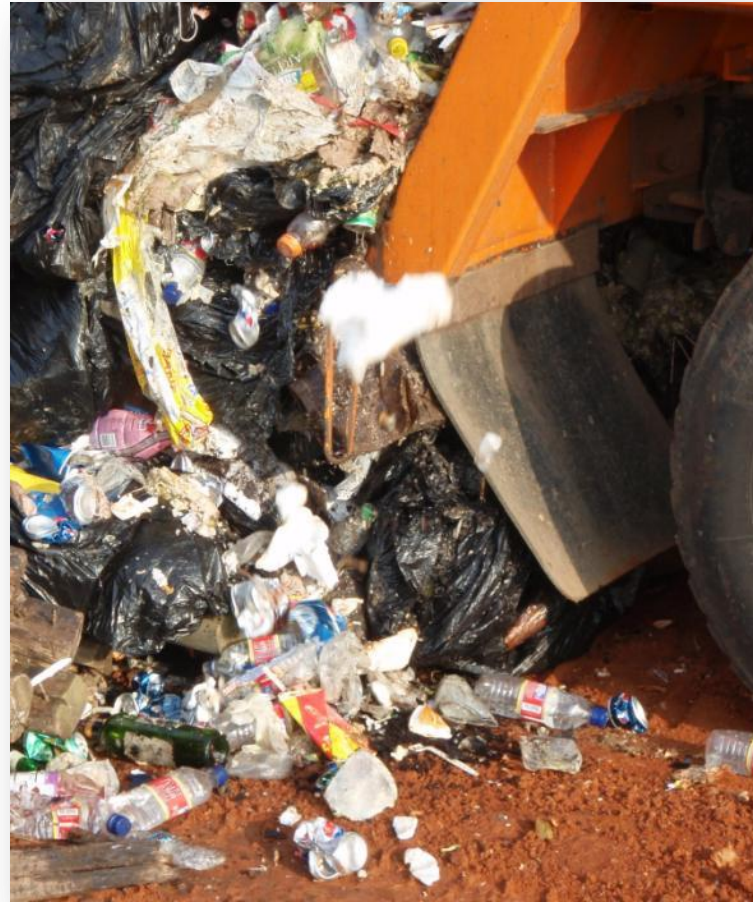


Taking Stock

Where does it go?

Summer 2011

Typical landfill
load from
campus



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Taking Stock

Who and what is in my favor?

- Enthusiastic staff/faculty
- Student club
- Receptive City Public Works
- \$5,000/yr materials budget



Taking Stock

Don't fear the naysayers

- Learn their game and play along
- Perfect small projects
- Apologize, accept input and responsibility, adjust
- Create an environment for others to have the good ideas



Progress

Academic



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Progress

Academic



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Progress

Residential

Summer 2011

Typical contents of compactor from Barracks



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Progress Residential



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Progress

Dining

Summer 2011

Typical landfill
load from
dining hall



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Progress

Dining



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Progress

Optimize changes to local services








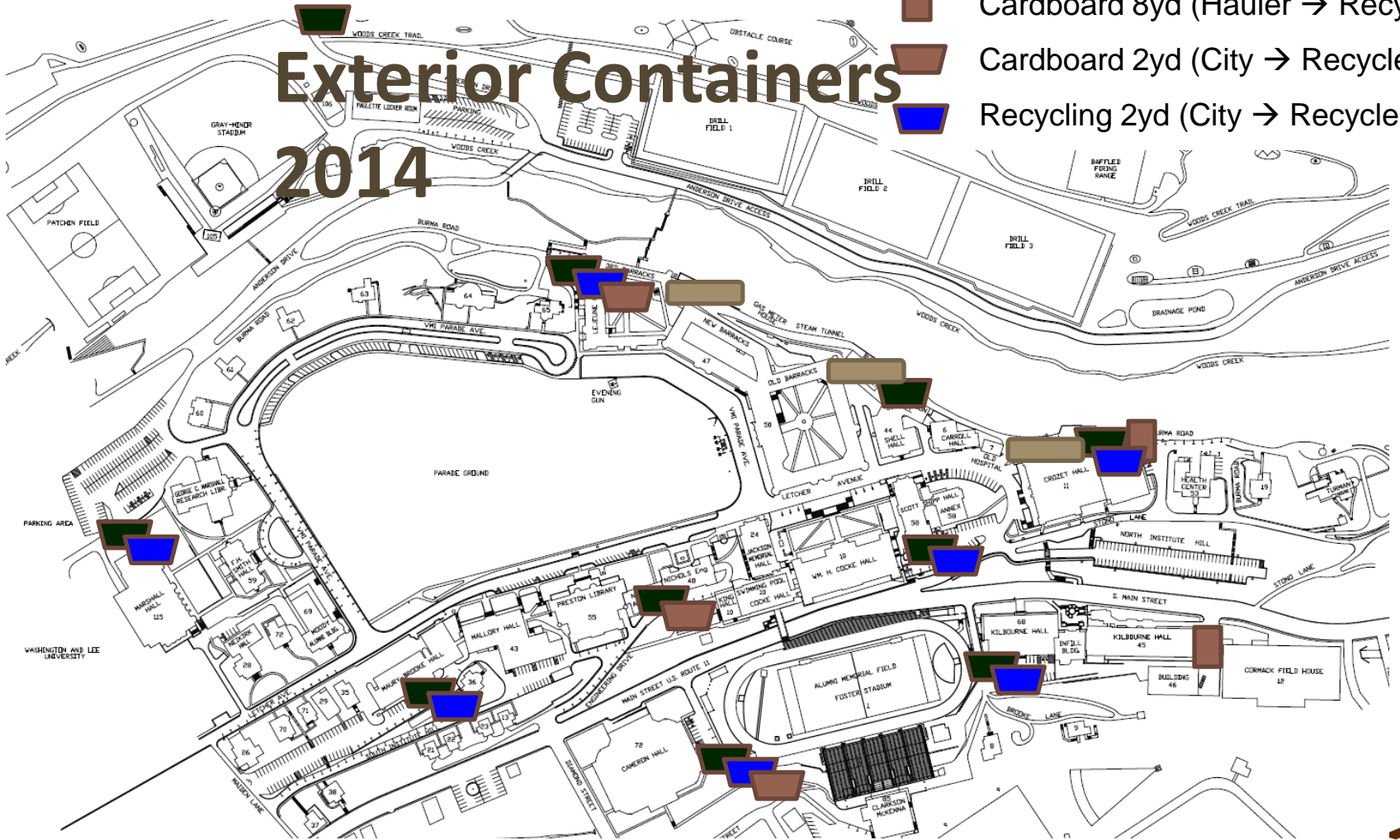
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Progress

Exterior Containers 2014

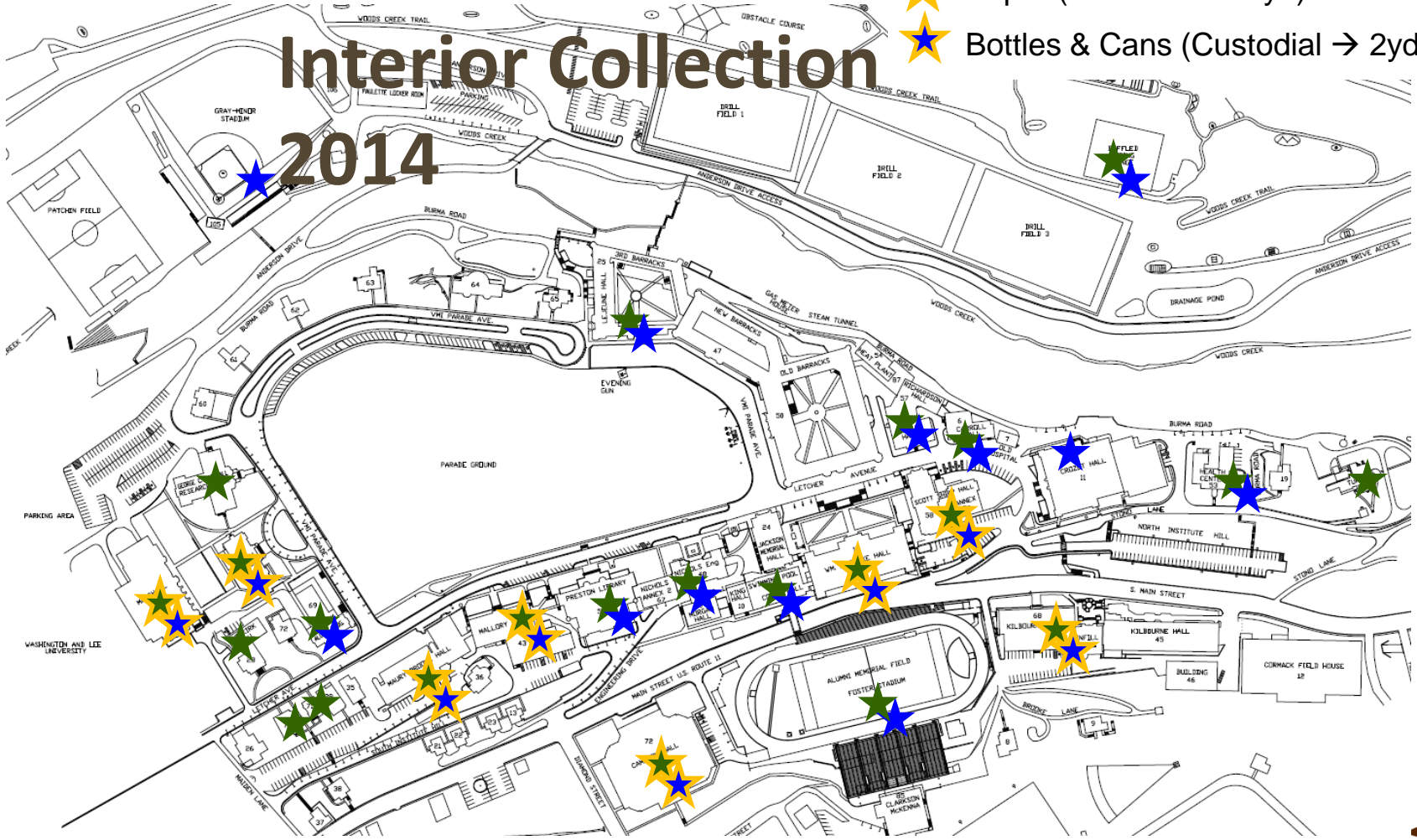
-  Trash 2yd (City → Landfill)
-  Trash Cmpct (Cont'r → Landfill)
-  Cardboard 8yd (Hauler → Recycler A)
-  Cardboard 2yd (City → Recycler B)
-  Recycling 2yd (City → Recycler B)



Progress

Interior Collection 2014

- ★ Paper (Supply → City or 2yd)
- ★ Bottles & Cans (Supply → 2yd)
- ★ Paper (Custodial → 2yd)
- ★ Bottles & Cans (Custodial → 2yd)



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Progress

Small changes add up

- Adoption will vary
- Snowball effect
- Gain visibility via events, competitions



Progress

Events & Competitions



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Challenges & Considerations

The fun never ends...

- Processes currently a hybrid
- New leadership in key areas
- External factors in flux
- Limited access due to location
- Awareness



Challenges & Considerations

Unusual items



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Challenges & Considerations

Habits hard to break

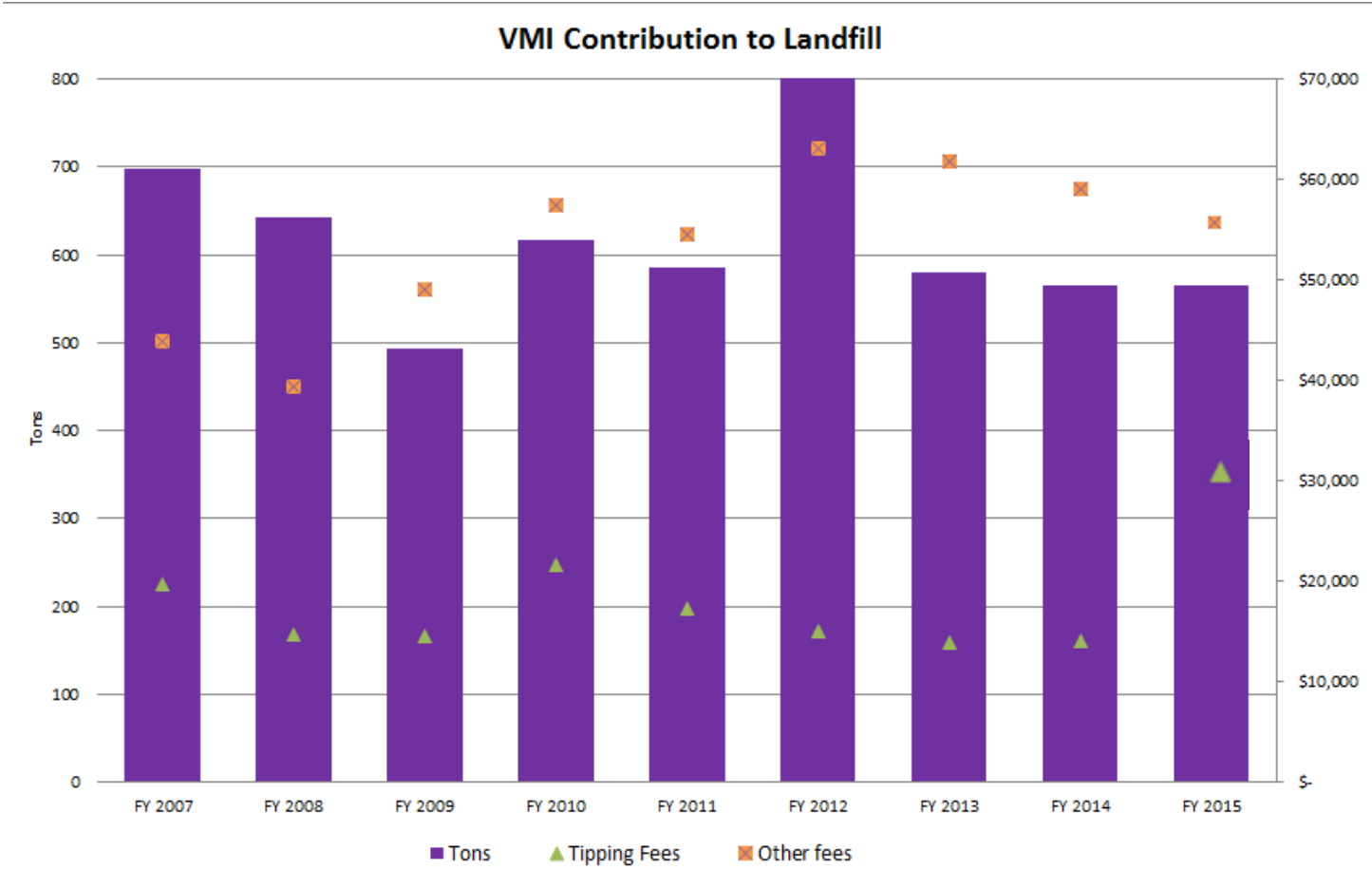


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Challenges & Considerations

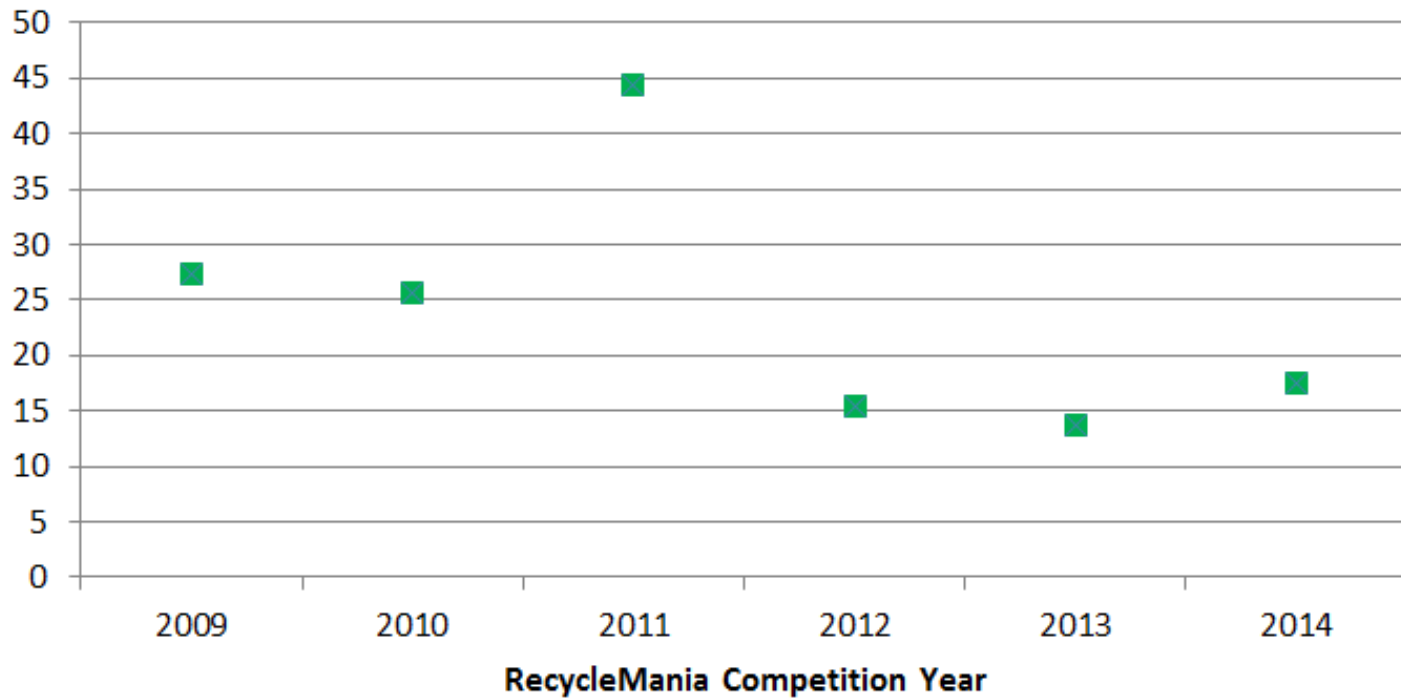
Tracking



Challenges & Considerations

Tracking

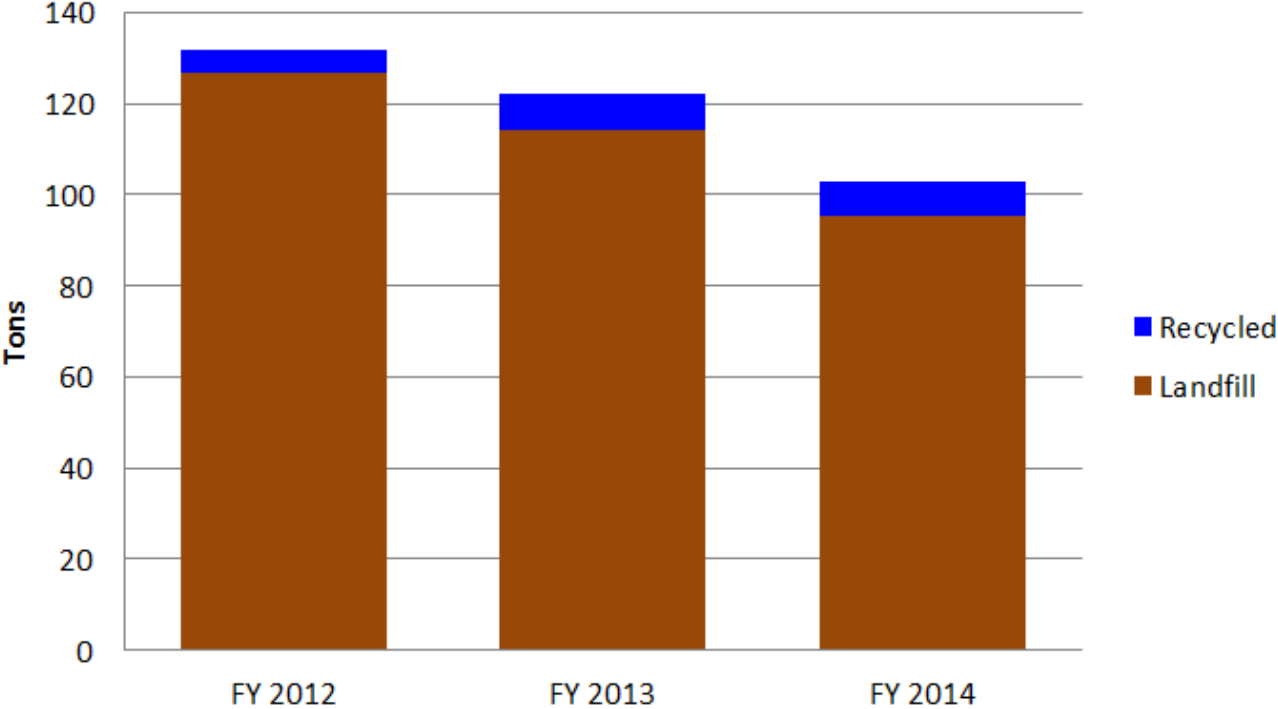
Post-Wide Recycling Rate (%)



Challenges & Considerations

Tracking

Recycling Trend in Barracks



Closing Thoughts

- Customer service is first priority
- All within vacuum of goals or leadership
- Local manufacturing – can we close the loop?
- Curricular connections unexplored



Questions

On a Path to Zero Waste

Or, What You Can Learn
from RecycleMania

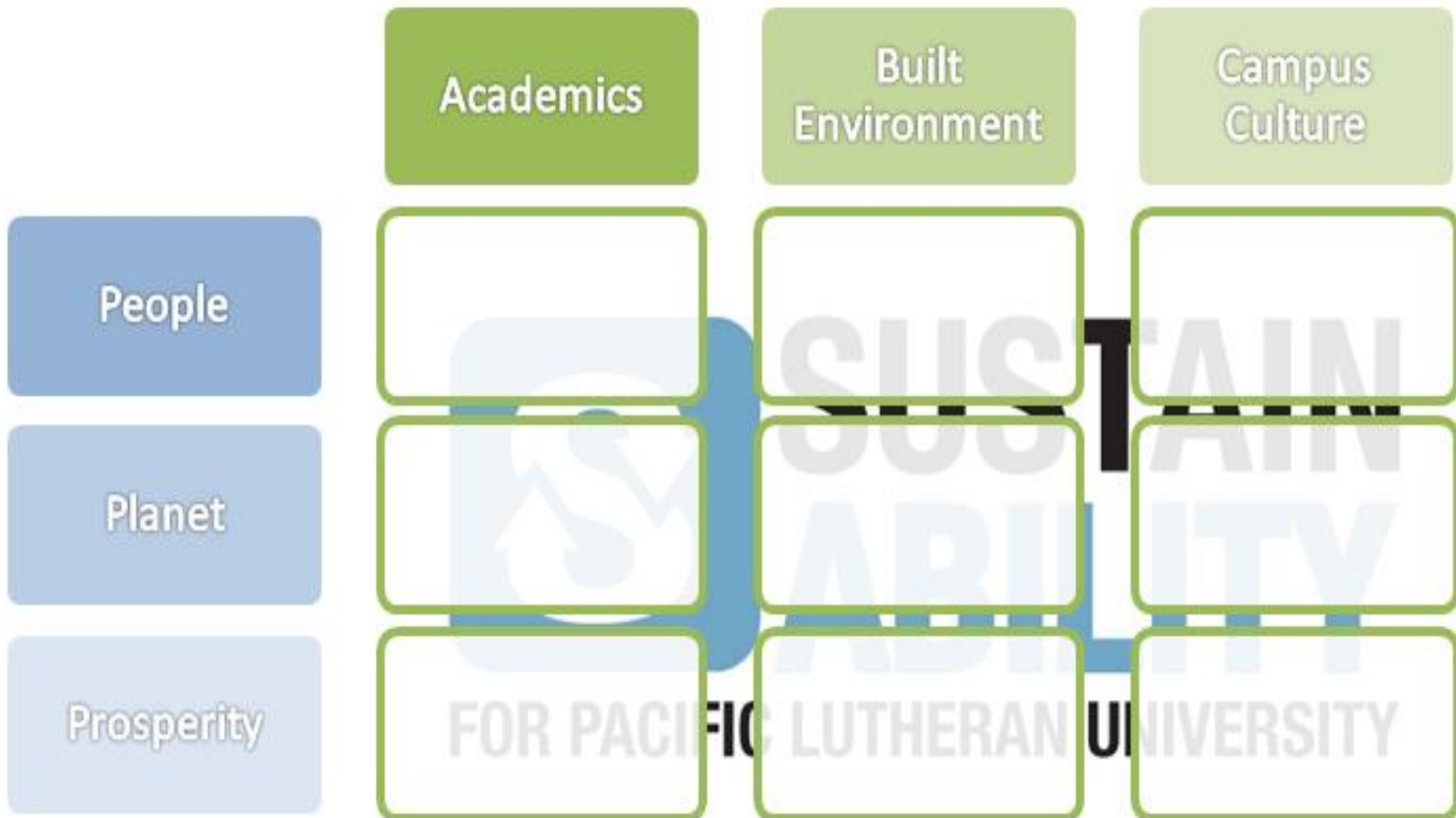
Chrissy Cooley MBA LEED AP

Sustainability Manager, Office of Sustainability

Pacific Lutheran University

Tacoma, Washington

This matrix shows the “3 P’s” of Sustainability, People Planet Prosperity, are overlaid with the three most prominent areas of campus to create a complete matrix of sustainability at PLU.



What is Recyclemania?

An Intercollegiate Competition

- Over 250 schools in 2014, across US and Canada
- Motivates colleges to increase recycling efforts and decrease waste generation
- Encourages measurement and benchmarking that could improve efforts over time
- Generate attention and support for recycling

RECYCLE MANIA

8 WEEKS
1 WINNER
RECYCLE
TO WIN

PLU is competing this year from February 2 to March 29 to recycle the most and take the title.

THE COMPETITION:

Antioch University
University of Missouri
University of California
California State University
Baylor College of Medicine

Who can recycle the most?



8 WEEKS • 1 COMPETITION

RECYCLE MANIA!

Join the cause! Help PLU recycle more than any university on the continent!

- Feb 8 PLU Recyclemania Kickoff
Garbology in Red Square
- March 4-8 Recycle Olympics



Promotional Strategy

- **Passive Advertising**
- **Social Norming**
- **Competition for the sake of habit formation**
- **Collaborate with groups wherever possible**
 - Residence Hall Grocery Bingo
 - Student Government Recycle Olympics
 - Diversity Center Wasteland film showing
- **Campus Wide Garbology**

Garbology

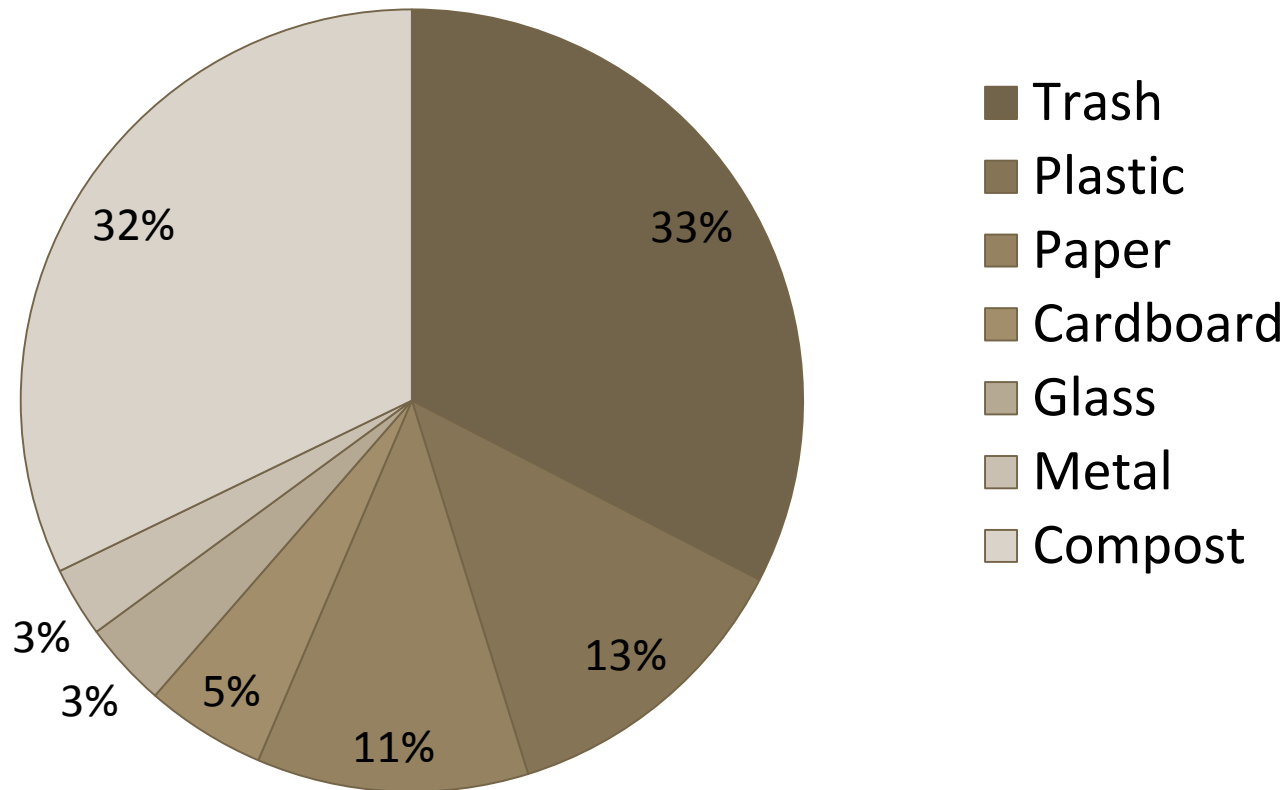


Garbology results



- <http://recyclemaniacs.org/school-stories/pacific-lutheran-university>

Garbology '13 Results



Our Results

- **2014: 47th with a waste diversion rate of 42.6%**
- **2013: 13th with a rate of 71.1%**
- **2012: 15th with a rate of 58.7%**

Overview of PLU Waste Diversion

- By refusing waste inflow and diverting waste outflow from operations, the University will reduce the total amount of waste leaving campus by 30 percent from 2011 baseline, and completely prevent that going to landfills by December 31st, 2020.

Characteristics of *Strategies*: Strategies were selected on their ability to:

- Save waste stream costs to the University
- Prioritize the greatest potential reduction in the waste stream as identified from the billing spreadsheet and campus garbologies
- Obtain a high score on the ABCs of PPPs
- Exemplify the purpose of using the campus as a living laboratory
- Directly lower the carbon footprint as identified by the Greenhouse Gas Inventory
- Anything that can close a loop in a cycle
- Limit virtual waste

- Follow the 5Rs flow of the waste management hierarchy (refuse, reduce, reuse, repair, recycle)



THE BUYERARCHY
of NEEDS
(with apologies to
Maslow)

What We Learned

- **Focus on the front end**
 - Education/outreach will have bigger impact
 - Dispel the “away” myth with
- **Make recycling fun**
 - Make sustainability more interesting to students and staff
- **Partner with others both on campus and off**

Questions

Taking your Recycling program to the next level



Dalhousie University

- Mixture of old and new buildings
- Different bin and signage for every building
- Recently added another campus in another city
- Numerous single bins in all buildings

Project goals

- **Remove/minimize single garbage bins across the university**
- **Create a standardized bin system for one space type**
 - **Example: All classrooms across the university will have one bin system with a standard signage**

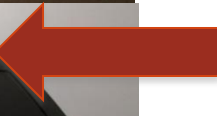
Visual eye – level signage



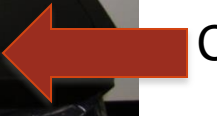
PROG Order



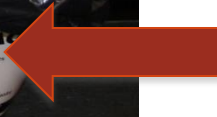
Text Label



Colour coding



Descriptive text label



Shape of opening



*** Implement as much as possible**

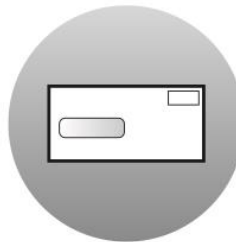
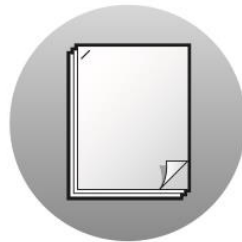
Challenges

- **Limited space in some buildings for signage and bins**
- **Too many potential sites for the project**
- **Limited time to do the project since part of my internship program**

Project Steps

- **Focus Groups with the FM staff to discuss potential implementation sites**
- **Worked with the Communications and Design for new waste signage**
- **New bins**
- **Before and after waste audits**

PAPER



Newspapers
Magazines
Office paper
Envelopes

RECYCLABLES



All glass / plastic bottles
All cans
All milk cartons
All plastic containers
All plastic bags / wraps

ORGANICS



Food leftovers
Pizza slice trays
Food napkins / paper plates
Soiled paper
Wooden stir sticks
Coffee sleeves
Wax paper

GARBAGE



Chip bags
Coffee cups
Plastic utensils
Styrofoam containers

BROKEN GLASS



Broken glass items

PACK IT UP, PACK IT OUT.

Please take your



to the hallway.

Table 2. Locations chosen and the changes applied

Location	Before	After
McCain Classrooms	Single – use garbage bin	Remove garbage bin & put sign to take waste out
McCain Hallways	Four bin system without any picture signage	Addition of new signage with pictures; addition of two new four bin systems (PROG) with colour coded lids, special openings & new signage with pictures
Mona Campbell	Single – use garbage bin	Small four bin system (PROG) with colour coded lids, special openings & new signage including pictures
Residence Recycling Room, 3 rd floor Risley Hall	Bins not colour-coded, no bins for recyclables, inconsistent signage	New five bin system (PROG + Refundables) with colour coded lids, special openings & new signage with pictures
Lunch Room, 2 nd floor, Central Services Building	Single – use garbage bin	Sign to take waste out; did not take out the waste container



New Bins



New Bins



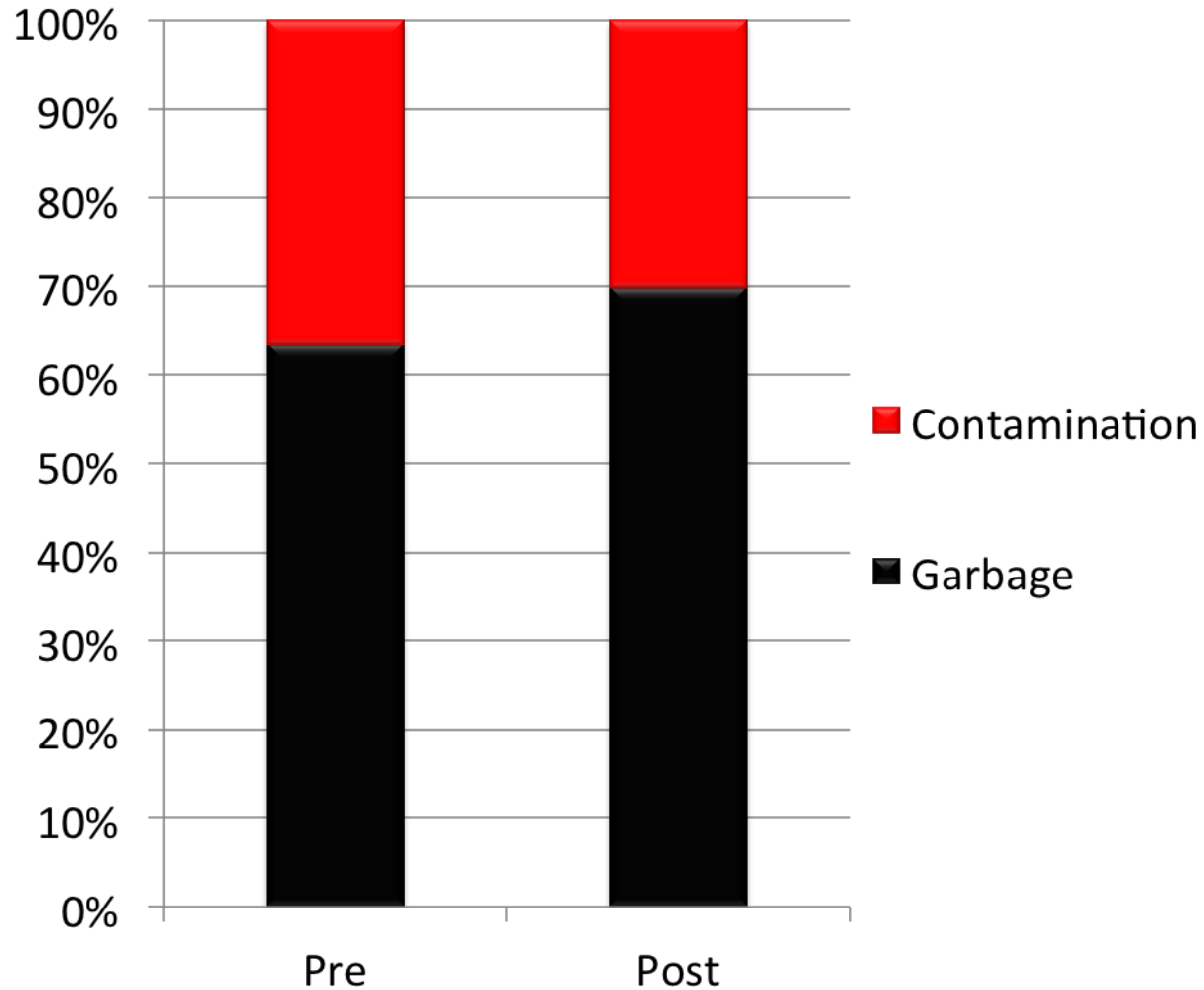
Residences - Before



Residences - After



Residences numbers



Recommendations

- **Signage with pictures and consistent signage**
- **Distinctly designed collection bins**
- **Colour consistency of bins**
- **Ensure buy-in at the top level**
- **“Ownership” of the program by the FM supervisors.**

Questions

Contact Information

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Join us for Future CURC webinars:

A Different Look at Game Day and Special Event Recycling

Thursday, July 10

1PM – 2:30 PM ET

A Deep Dive into Food Waste Program Design

Thursday, September 11

1PM – 2:30 PM ET

Creating a Leaner and Meaner Waste Management Program

Thursday, November 13

1PM – 2:30 PM ET

