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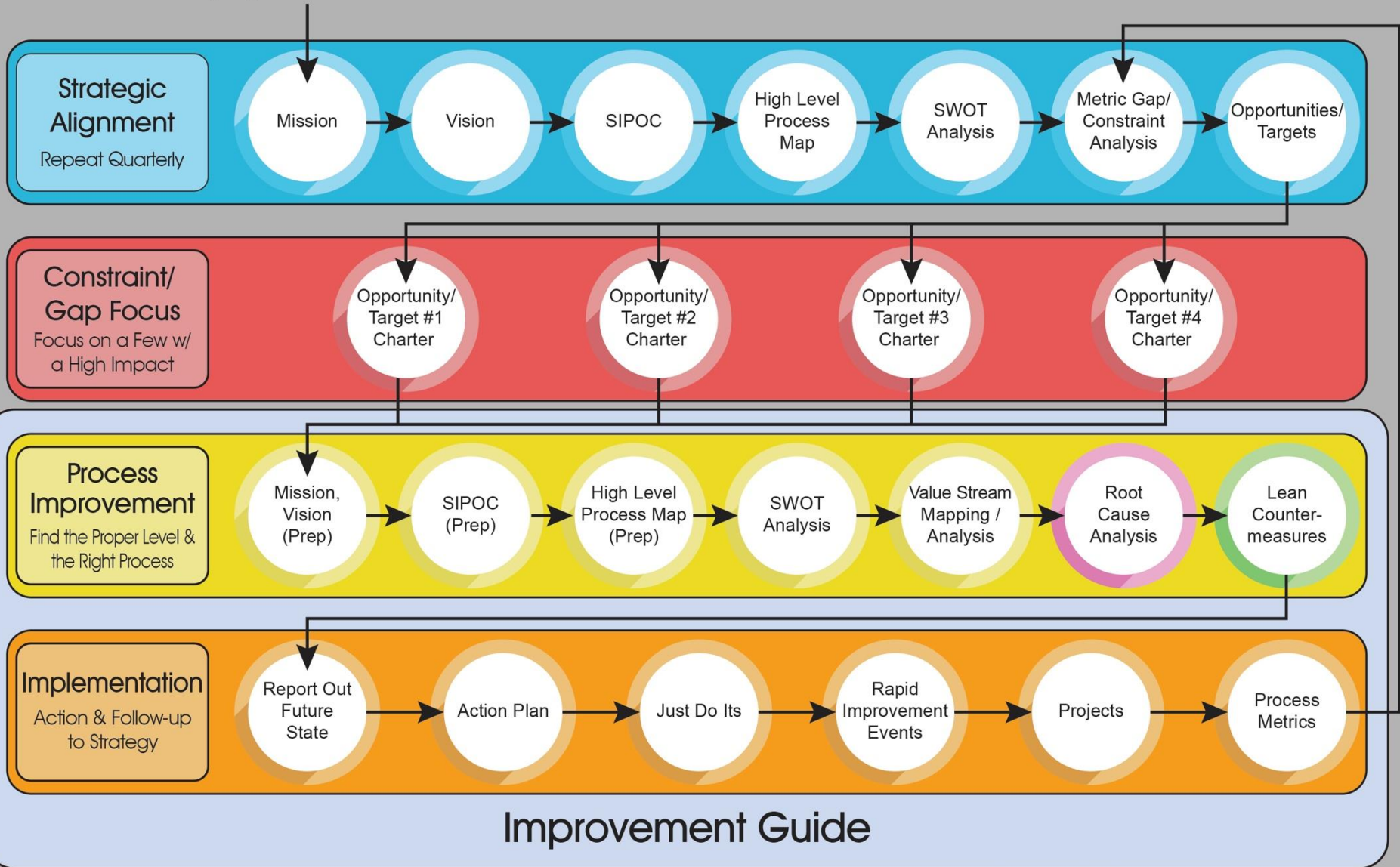
Zero Waste Events



# LABP Cross-Reference Guide

| Types of Wastes  | Recommended Countermeasure   |
|--|--|
| <p><b>1. Lack of Organizational Focus or Situational Awareness;</b> Unarticulated, unwritten, or under communicated mission, vision, norms; too many or incorrect metrics; inability to delegate and micromanagement</p> | <p>Situational Awareness through Visual Management, articulating, documenting and communicating Strategic Alignment and Deployment (SA&amp;D) - Working within Circle of Influence, <i>Leading Change</i> by Example and Communication</p> |
| <p><b>2. Inventory - excessive Work in Process (WIP);</b> projects and tasks started, not finished, prioritizing/reprioritizing, tracking and reporting, batching, multitasking, etc.</p>                                | <p>SA&amp;D to Keep WIP Optimal and Visual (WIP Boards)<br/>Limit Multitasking (Personal and Organizational), focus on finish vs. start too early, determine optimal batch,</p>  |
| <p><b>3. Transportation - inefficient movement of information;</b> handoffs, expediting, facilitating, multiple approvals</p>  | <p>Pull Systems using WIP Boards, Reconciling Handoffs, Single Text Negotiation, and Standard Work</p>   |
| <p><b>4. Motion;</b> Time wasted searching (even mental)</p>   | <p>5S, Information Organization Methodology, Visual Mgt.</p>   |
| <p><b>5. Waiting;</b> Waiting for the person working before us batching, starting another task just to fill time</p>   | <p>Create Battle Rhythms with Optimal WIP<br/>Use Small Pockets of Time to 'Sharpen the Saw'</p>   |
| <p><b>6. Defects;</b> Not handing off 100% complete and accurate, hidden factory</p>   | <p>Single Text Negotiation, Standard Work, Service Level Agreements, and Checklists</p>  |
| <p><b>7. Over-processing;</b> Excessive effort in delivering results with, reinvention, variation, scheduling, micro-managing, inspections, ad-hoc meetings, and excess precision</p>                                    | <p>Common problem solving methodology, understanding the difference between special and common cause variation, Standard Work, and Checklists</p>  |
| <p><b>8. Over-production;</b> Delivering activities that weren't asked for or required; overproduction of initiatives, taskings, emails, reports, metrics, and distribution lists</p>                                    | <p>Theory of Constraints, SA&amp;D (asking customers), 5S applied to reports, metrics, and files, and Email Reduction techniques – daily standups in front of WIP Board, common email protocol</p>   |

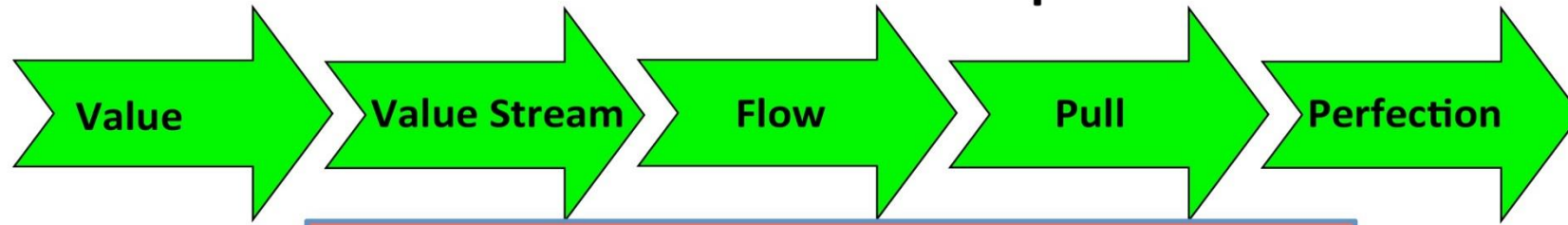
# Lean Applied to Business Processes SA&D Guide



## Improvement Guide

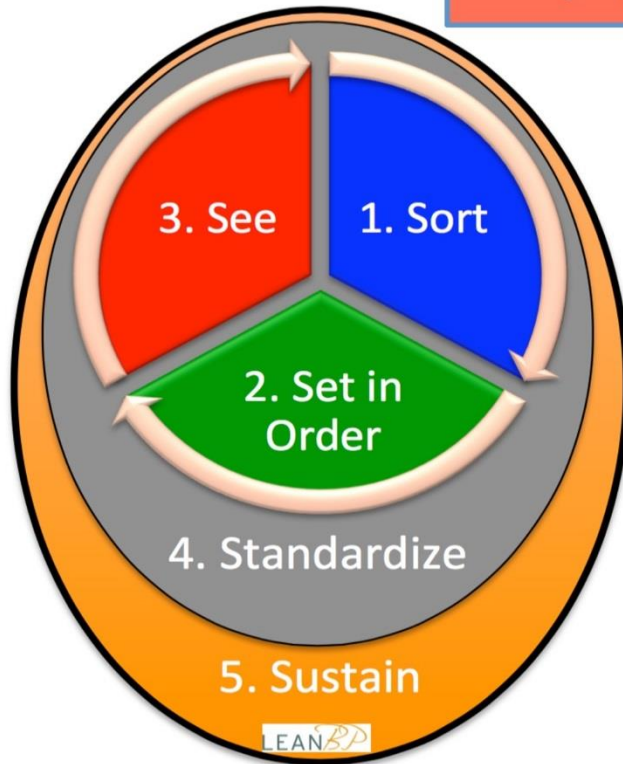


# Lean Concepts



Non-Value Added (NVA) is a task that:

- Does not change fit, form, or function or
- Is done for internal use or
- Would not pass a line-item veto (by customer or end user)

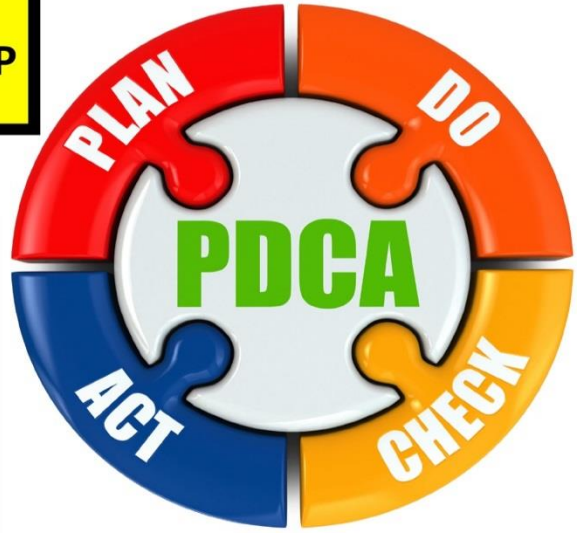


Takt time =  $\frac{\text{Available Time}}{\text{Demand}}$

Little's Law  
 $LT = \text{WIP} / \text{SHIP}$

The 7 W's – M. Hammer  
Future State

1. Who?
2. When?
3. Where?
4. Whether?
5. What interconnections?
6. What inputs & information?
7. What degree?



# Mission

To encourage the Berea College community to meet current needs without degrading the ecological, social, and economic systems to create a sustainable way of life for meeting future needs.

# Vision

50% increase in zero waste events (from 18-27)  
with full implementation by October 1, 2017



# Charter

1. **Mission** – To encourage the Berea College community to meet current needs without degrading the ecological, social, and economic systems to create a sustainable way of life for meeting future needs.
2. **Burning platform** – 99% of Campus events not Zero-Waste therefore failing to meet Great Commitment #7.
3. **Process Description** – From booking of event to recording of waste data.
4. **Problem Statement** – Inability to host “zero-waste” events without the presence of trained “waste ambassadors”.
5. **Sponsor** – Derrick Singleton
6. **Process Owner** – Joan Pauly/Annette Dangerfield
7. **Team Lead** – Rasheka Richardson
8. **Facilitator** – Joan Pauly
9. **Team** – Joan Pauly, Annette Dangerfield, David McHargue, Rasheka Richardson, Cait McClanahan, Brandon Noble, Aaron Beale



# SIPOC

| Suppliers                        | Inputs                              | Policies                         | Outputs                                    | Customers          |
|----------------------------------|-------------------------------------|----------------------------------|--|--------------------|
| Admissions<br>Campus Departments | Green Events Form                   | Catering Policies                | Food/Beverage                              | Berea College      |
| Catering                         | CaterTrax Database                  | Room Rental Policy               | Event                                      | Campus Departments |
| Farm Store                       | Emails/Phone Calls/<br>Conversation | Conference<br>Services Contract  | Compost                                    | Outside Customers  |
| Facilities                       | Paper Products<br>(Compostable)     | Compostable Guidelines           | Trash                                      | Janet              |
| Ronnie                           | Meetings                            | Recycling Guidelines             | Recycling                                  | Kevin              |
| OS                               | Bins & Bags                         | 7 <sup>th</sup> Great Commitment | Business for the college                   | OS                 |
| Kevin                            | Transportation                      |                                  | Data on lbs. of<br>trash/recycling/compost |                    |
| Building Captains                | Furniture                           |                                  | Education                                  |                    |
| Jeffrey                          | Box Truck                           |                                  | Sustainability Operations                  |                    |
| Conference Services              |                                     |                                  |  |                    |



# Hi-Level Process Map



Volume = 1800+ Campus events  
WIP = 103 (1800/365 x avg. lead time)  
Lead Time = 1-6 weeks  
Rework = 100% Always a scramble  
Constraint = Secure/Train waste ambassadors. Lack of awareness of “Green Events Form” and its mission.

Customer books event using Green Events Form

Green Events form auto notifies all parties

Secure volunteer ambassadors

Train ambassadors if necessary

Ambassadors run stations

% waste reported



# SWOT Analysis for Campus Events

Internal

- Commitment
- Compostable Resources
- Student Labor Dedicated
- Place for compost
- Great teamwork between OS and Catering
- Rasheka

Strengths

- Scale of responsibility
- High Student Staff Turnover
- Culture of saying “yes”
- Catering and food service run by same crew

Weaknesses

External

Opportunities

- Require use of compostable materials for events
- Campus Culture

Threats

- Variability based on location
- Outdoor events create more waste
- Lack of enforceable policies
- Customers don't know what they need
- Student Turnover
- Weather

# SWOT Analysis for Green Events Form

Internal

- Electronic Form
- Notifies office of sustainability of event
- Recycle compost bins/ambassadors
- Notifies Berea College catering of event for food
- Notifies Ronnie of event for supplies (tables, chairs)
- Notifies Kevin of event to deliver and pick up bins
- Creates awareness of zero waste events
- Easy to navigate
- comprehensive

Strengths

- Doesn't link to room reservation
- For Berea College catering cater transfer still needed
- Work order still needed for tables and chairs
- If not using dining services you need a second form to order supplies

Weaknesses

Opportunities

- Policy mandating "Zero Waste"
- Standardized training
- Educational benefit

Threats

- No policy to define how events have to happen
- Lack of confidence in form

External

# Problem Statement

Need for trained waste ambassadors to achieve success and lack of awareness of the role hosting “zero waste” events plays in achieving our mission.

Proliferation of non compostable and non sustainable event materials.

# Lean Applied to Business Processes Improvement Guide

## Seeing the Process

- » Strategic Alignment & VOC
- » SIPOC / High Level Map
- » Constraint / Gap Analysis
- » Value Stream Mapping
- » Value Added (NVA) Discussion
- » Walk the Process
- » Spaghetti Diagram
- » Ideal State / BPR
- » Theory of Constraints

## Lean Countermeasures

- » Information at Point of Use
- » 5S - Sort, Set in Order, See, Standardize, Sustain
- » Visual Management
  - » Situational Awareness
  - » Method Sheets / WIP Boards
- Text » Standard Work / Error Proofing
  - » Templates / Checklists
  - » Optimize WIP » Email Protocol
- » Cell - No Multitasking
  - » Battle Rhythm Meetings
  - » Single Text Negotiation

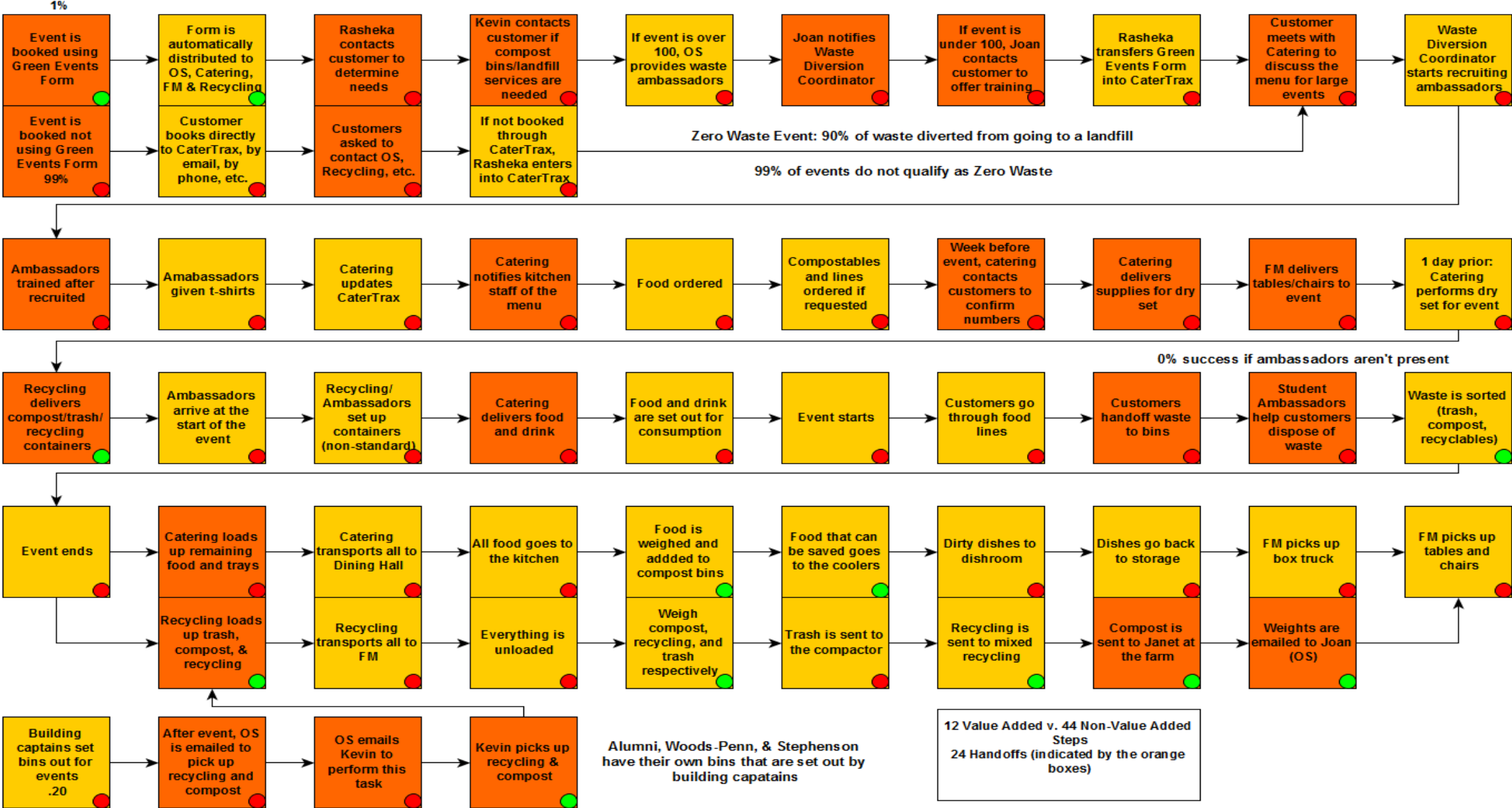
## Root Cause Analysis

- » Brainstorming Eight Wastes
- » Cause & Effect Diagram
- » 5 Whys
- » Check Sheets / Pareto Analysis

## Implementation

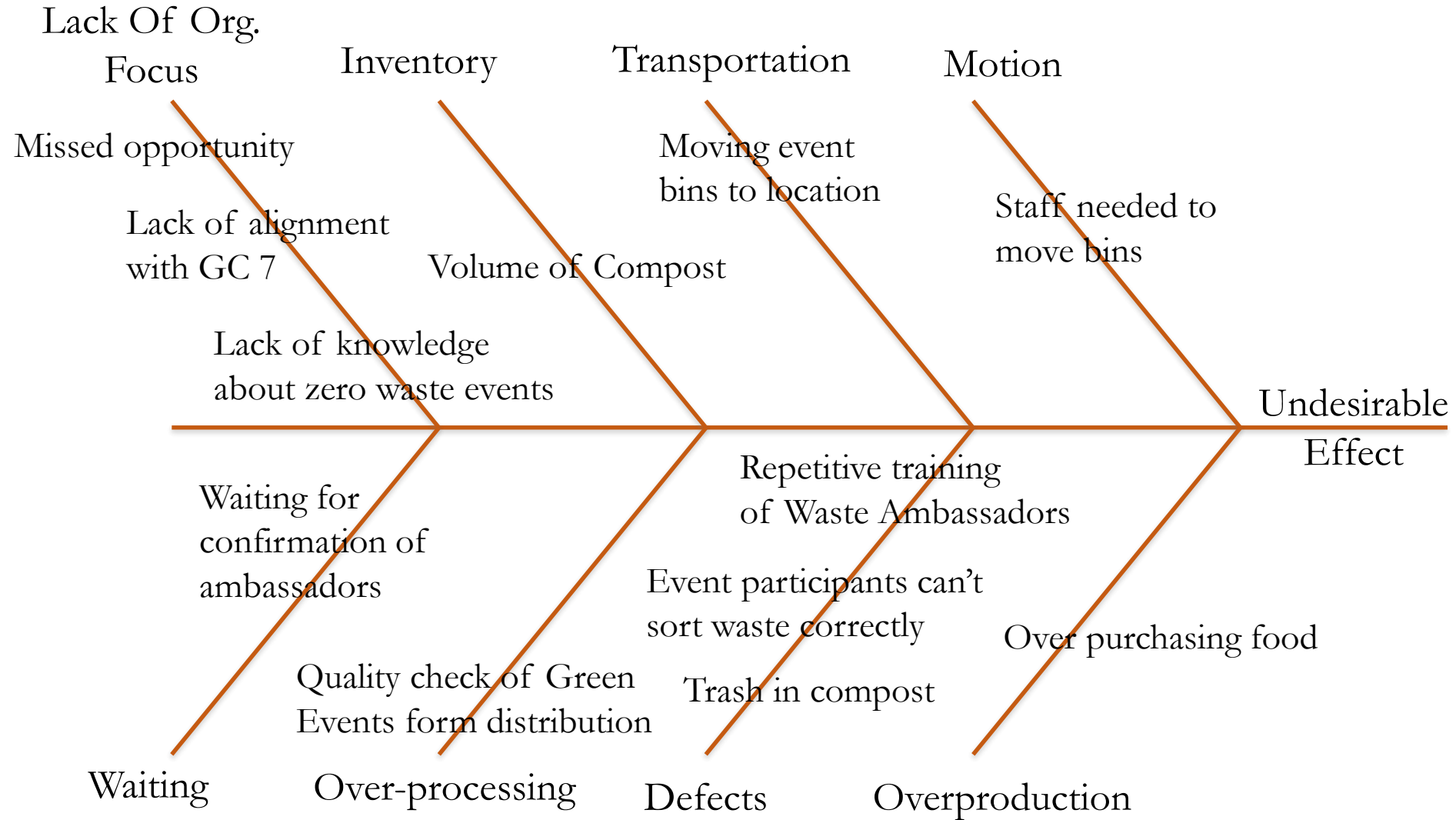
- » Future State (7Ws)
- » Action plan / Implementation
- » Feedback Loop

# Current State



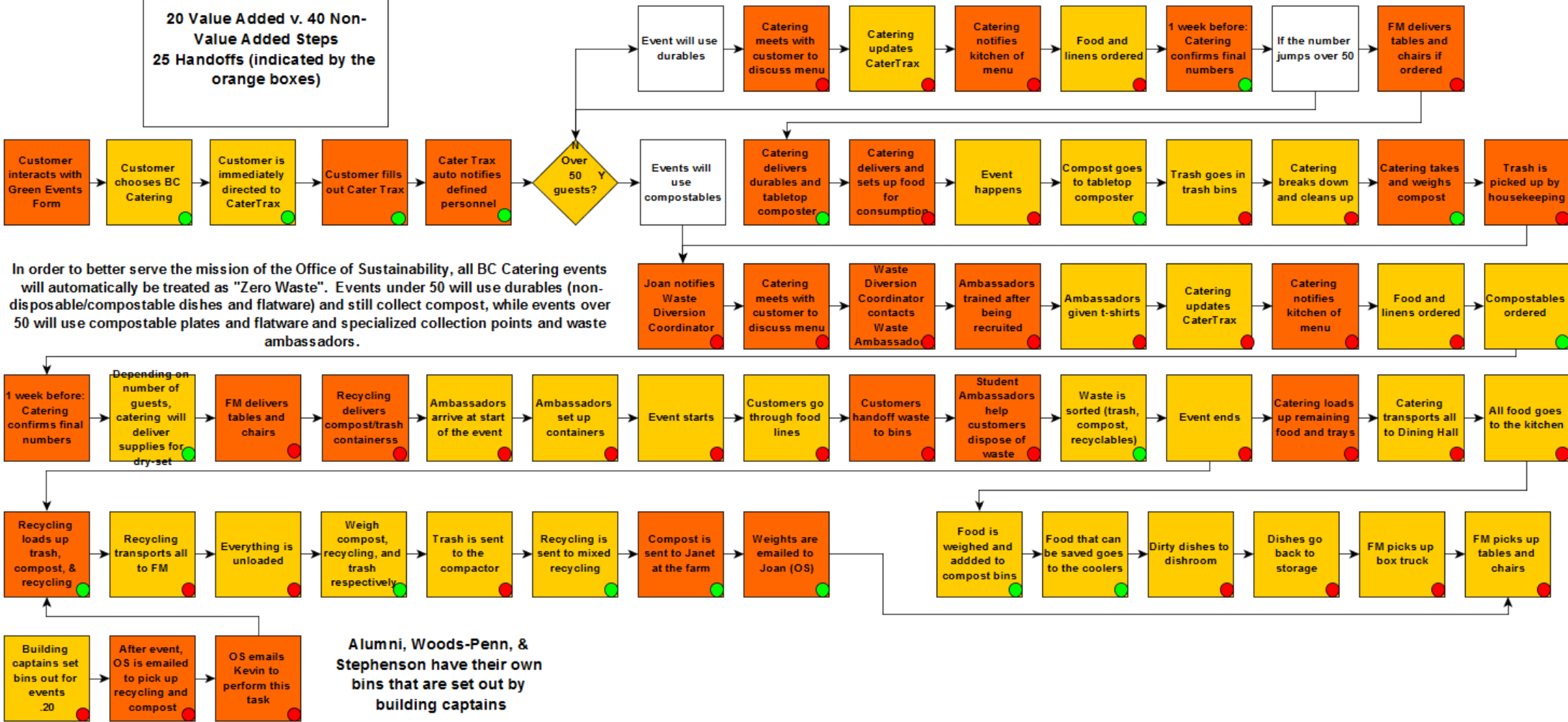


# Cause and Effect Diagram



# Ideal Future State BC Catered Event

20 Value Added v. 40 Non-Value Added Steps  
25 Handoffs (indicated by the orange boxes)

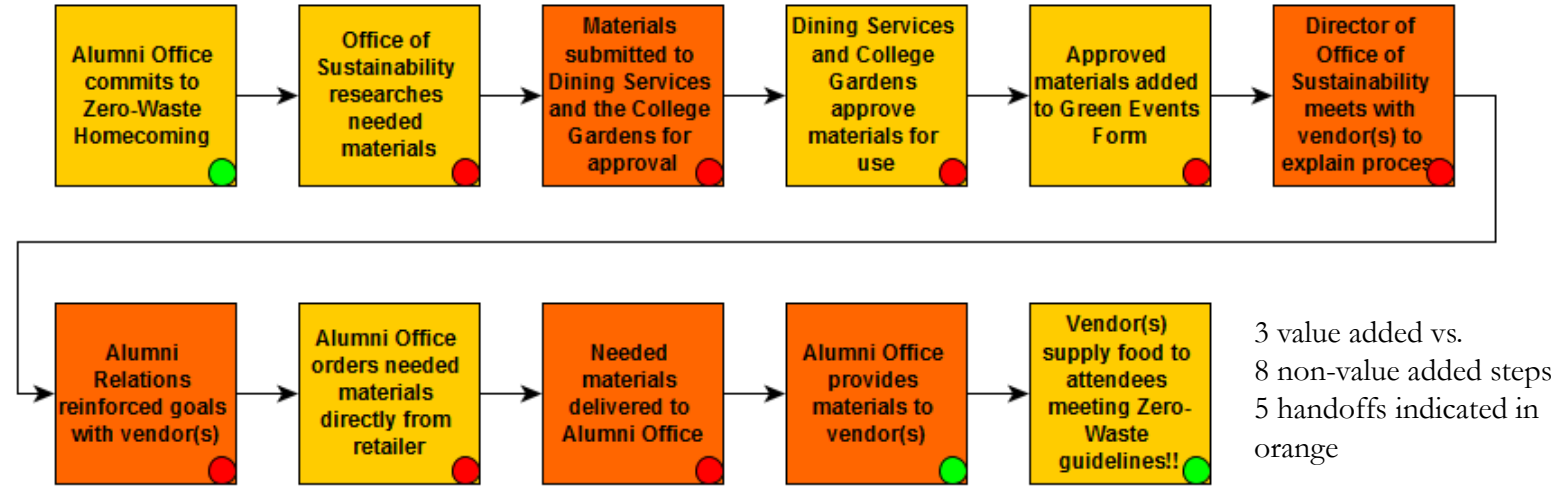


In order to better serve the mission of the Office of Sustainability, all BC Catering events will automatically be treated as "Zero Waste". Events under 50 will use durables (non-disposable/compostable dishes and flatware) and still collect compost, while events over 50 will use compostable plates and flatware and specialized collection points and waste ambassadors.

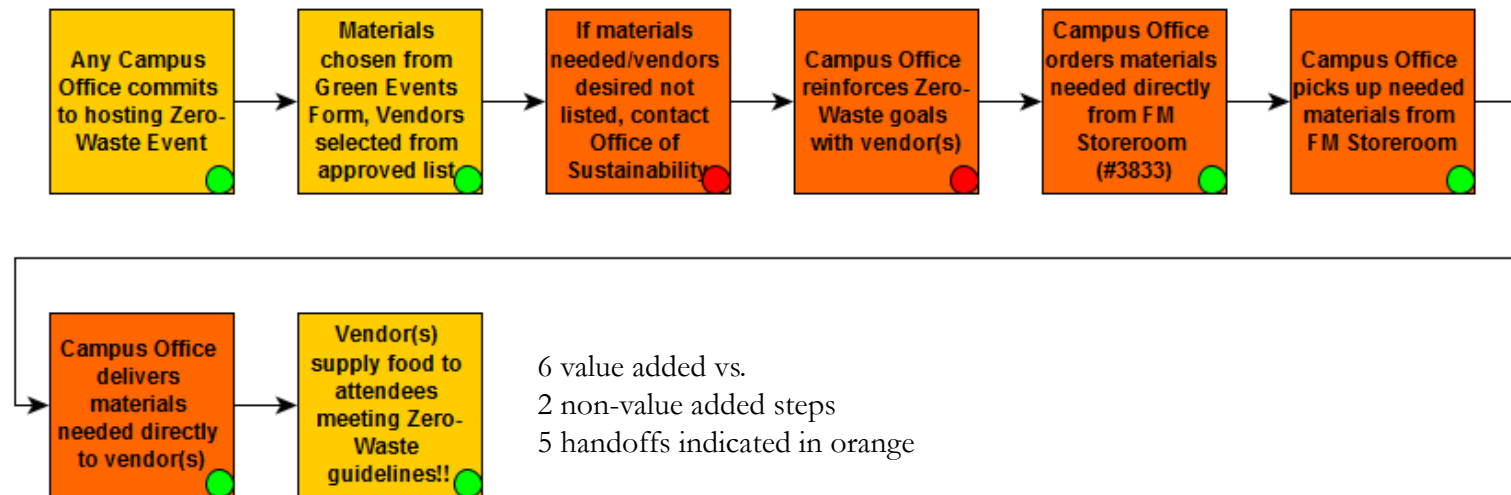
Alumni, Woods-Penn, & Stephenson have their own bins that are set out by building captains

# Ideal Future State External Catering

## Zero Waste Homecoming 2017



## Future Events



## What does it mean to be a Zero-Waste event?

We define Zero Waste as diverting 90% of waste from the landfill. We are able to do that at Berea College by having an on-site recycling center and an on-site composting location.

- All the recycling and compost we collect is weighed and incorporated into a yearly total to be compared against the amount of trash collected that goes to a landfill. Last year, we came close to a 60% diversion rate, meaning we were able to recycle or compost 60% of the waste produced by all of campus. Our goal is to reach 90% diversion for all of campus, and making Zero-Waste events the norm will greatly help to achieve this goal.
- At events we have Recycling, Compost, and Landfill bins with signage that shows what can be accepted in each category.

- We have Waste Ambassadors from the Recycling Center and the Office of Sustainability who "Talk Trash" with event attendees: that is, they are there to maintain the integrity of the compost and recycling, since we are held to high standards in those categories.
- For compost especially, we have Certified Organic standards at the Greenhouses, which is where the compost is taken. Plates, cups, and napkins that will break down in that compost have to be specially ordered.

# Decreased Transportation

- Extra bins purchased to keep at locations that hold a large numbers of events so they do not have to be hauled across campus

# Increased Situational Awareness



- Logo created and used consistently to raise awareness of zero waste events.



# Increased Organizational Focus



# Increased Organizational Focus

- Green Office Challenge promotes sustainable habits and increases awareness of Sustainability Office. One of the requirements to be Green Office Certified is to be educated concerning zero waste events.



# Visual Management





# Visual Management



On behalf of the Office of Sustainability, welcome all new students! Here at Berea College, we pride ourselves in being mindful, practical, and responsible when it comes to taking care of ourselves and the planet. We'd like you to join us! Below you will find helpful tips about **RECYCLING AT BEREA COLLEGE**, one of the many ways we can reduce our environmental impact.

## HOW TO RECYCLE AT BEREA COLLEGE



Recycling at Berea College is single-stream, which means that all items that can be recycled are placed in the same bin. You will see many of these bins on campus, labeled "MIXED RECYCLING."

These are items that can be recycled:

**cardboard • paper • plastic and glass bottles • cans • plastic lids**

In addition to recycling, we can also compost many things at Berea College, however, **only at events**. Composting is a process that breaks down biodegradable items into soil. Berea College compost goes to the Greenhouse and the Farm and is used to grow fresh produce.

These are items that can be composted:

**plates\* • napkins • cups\*  
food scraps**

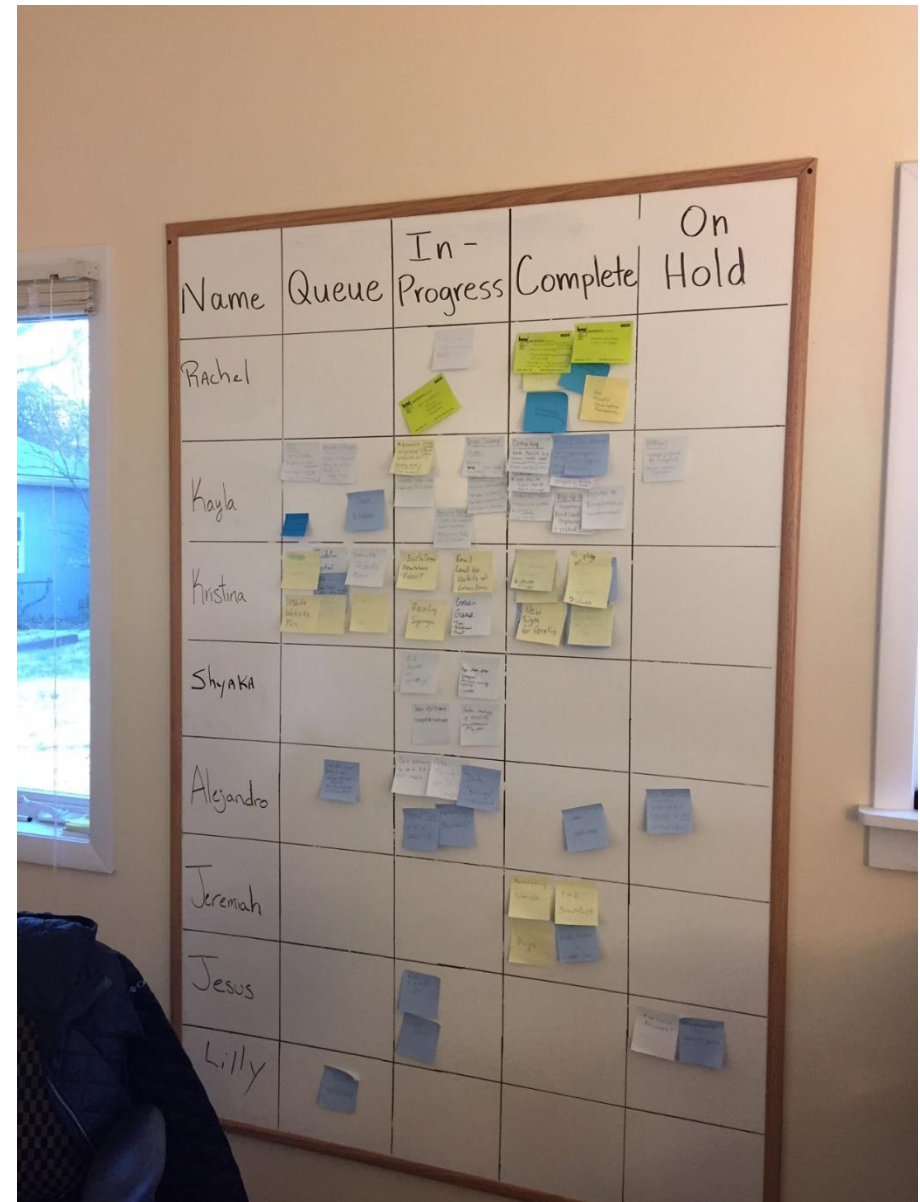
\*Unbleached "Compostable" • Biodegradable Brand



Items that cannot be recycled or composted will go to a landfill. Please be mindful of how many of these items you buy and reuse them if you can.



These are items that cannot be recycled or composted and must go into the trash:  
**plastic bags • plastic silverware  
paper plates • soiled food wrappers**



# Standard Work

BEREA  
COLLEGE

[ABOUT](#) [ADMISSIONS](#) [ACADEMICS](#) [NEWS](#) [ALUMNI](#) [EVENTS](#) [GIVE](#) [DIRECTORY](#)



## Office of Sustainability

### Zero Waste Events Planning Form

This form provides you with ONE FORM to request items from Facilities Management and Catering Services, and ensures all of our campus events are zero waste. We also have a Zero Waste Event – Supplies Only form if you are in need of EVENT SUPPLIES ONLY.

#### Zero Waste Events Planning Form

Use this form to contact BC Catering, Facilities Management, and the Office of Sustainability to make your next campus event zero waste! USE WILL STILL NEED TO USE AD ASTRA TO RESERVE YOUR EVENT LOCATION.

#### Contact Information

#### HOME ABOUT

[Staff](#)  
[Contact Us](#)

#### GET INVOLVED

[Student Labor Positions](#)  
[Volunteering Opportunities with Sustainability](#)  
[Academic Programs and Opportunities](#)

#### TAKE ACTION

[Zero Waste Events Forms and Info](#)  
[How to Recycle at Berea College](#)  
[Transportation](#)  
[Live Green Everyday Tips](#)



# Standard Work

## Zero Waste Event – Supplies Only Form

Are you having an event, but don't need Berea College Catering services? No problem! Use the link below to order supplies and recycling, compost, and trash containers ONLY for your event.

**Compostable materials** supply orders must be placed at least **five working days** prior to your event date. Once the order is placed, Ronnie Vanhook, Storeroom Manager with Facilities, will notify you when the order is ready for pickup, or will make arrangements with you for delivery. Pickup hours are Monday – Friday 8:00 AM – 5:00 PM (closed noon to 1:00 PM for lunch). Pickup location for compostable supplies is Facilities Storeroom, 310 Main Street (across from The Farm Store). If you have placed an order for the **event bins**, the following procedures apply. If your event is NOT located at these locations, Kevin Long with Facilities Recycling will deliver to your event location. If your events are located in one of these locations, please see below.

**Alumni Building:** Campus Life Office has the keys to the storage area to the bins. Please return bins to the Campus Life Office once you are finished.

**Stephenson Hall:** Bins are located under the stairs in stairwell on the first floor. Please return to the area once you are finished.

**Woods Penn:** Bins are located in the kitchen area. Center for International Education office has the keys to the kitchen if locked. Please return to kitchen once you are finished.



# Standard Work



## How to Green Your Event

An event primer for planning events and working with your outside caterer.

### When using outside caterers:

Ask your caterer to serve food on permanent-ware (plates, cups, and cutlery) rather than disposables. If your caterer does not have permanent-ware and you need disposables, supply your own with our approved BC compostable disposables. **Order [HERE](#).**

Request that your caterer **platter food** as opposed to the waste generated from individually boxed meals.

Whenever possible, support our local economy by **selecting local caterers** that use food **from local farmers**. Organic preferred.

Request recycling, composting, and trash bins for your event. **Order [HERE](#)** (located under the Waste Containers section of the form)

## Good Greening Practices:

**Be mindful of Kentucky's growing season when planning your menu.** Check [HERE](#) to see what's in season.

**Keep accurate event attendance records for recurring events**, and make sure your caterer is updated each year when ordering. **Reducing food waste** is THE MOST sustainable act you can take.

**Order snacks in bulk rather than individually packaged** items like chip bags. Trail mix, whole fruit, cheese, crackers, bagels are examples of items that are not individually packaged.

**Provide refillable salt and pepper shakers and condiment and cream bottles** rather than individual packages.

**Select reusable or recyclable event** decorations, signage, table covers, and organic floral displays that can be used somewhere else once the event is finished.

**Ditch the plastic water bottles.** Request water in reusable pitchers. Encourage attendees to bring their reusable water bottles. One liter of bottled water takes four liters of water to produce.



# Standard Work

## Related Resources

- [Recycling Program Information](#)
- [2014-2015 Recycling Statistics](#)

## Downloadable Signage

- [What can be composted at Berea College?](#)
- [What has to be thrown away at Berea College?](#)
- [What can be recycled at Berea College?](#)
- [All-in-one Recycling, Compost, Landfill How-to](#)



With your help,  
we hosted our first

# Zero-Waste



Homecoming

*November 17-19*





**BC Sustainability** @BC\_Live\_Green · 18 Nov 2017  
BereaFest is Zero Waste!



**BC Sustainability** @BC\_Live\_Green · 18 Nov 2017  
Thanks for helping make Homecoming Zero Waste! Here are our volunteers and attendees at the TAD breakfast this... [fb.me/1sGfDCoVw](https://fb.me/1sGfDCoVw)





## What made Homecoming 2017 a Zero-Waste success?

During the week of Homecoming 2017 (Nov. 13-19), Waste Ambassadors from the Recycling Center and the Office of Sustainability set up Recycling, Compost and Landfill bins at five major events. They compared the weights of recycling and compost against the trash to determine the total percentage of waste that we were able to divert from the landfill.



A Waste Ambassador from the Office of Sustainability helps maintain the integrity of the composting and recycling collection.

### Five tracked events

- \* **Caramel Apple Bar to kick-off Spirit Week** - 0 trash | 27lb. of compost
- \* **Block Party on the Square** - 27lb. of trash | 41 lb. of recycling | 68 lb. of compost
- \* **TAD Breakfast** - 0 trash | 2lb. of recycling | 10lb. of compost
- \* **BereaFEST** - 0 trash | 4lb. of compost
- \* **Men's Basketball game** - 0 trash | 15lb. compost | 5lb. of recycling

# We're throwing a Zero-Waste Summer Reunion

*June 8-10, 2018*



Homecoming 2017 was our first zero-waste event, and the first of its kind in Kentucky. With the help of our alumni, we diverted 90% of our waste from the landfill.







# Results

- Number of Zero-Waste events hosted increased from 13 in fiscal year 2016-2017 to 49 in fiscal year 2017-2018.
- 84% of the events successfully achieved Zero-Waste status (defined as diverting 90% of waste from the landfill) as compared to only 46% in the prior fiscal year.

## Future Steps

- Do 5S project in buildings with permanent zero waste bins to create standard for bin placement and use

# Project Anecdotes

“At the Office of Admissions, we are always looking for ways that allow visitors to see our commitments in action. We can *tell* them about our commitment to sustainable living, but being able to *show* them through Zero Waste efforts during our events really goes above and beyond to help them learn about who we are.”

*Denessa McPherson*, Coordinator of Campus Visits and Events, Admissions

"The Campus Christian Center is very pleased to do our part in making our two weekly lunch events Zero Waste. Every Tuesday we serve approximately 75 people and on Thursdays we serve approximately 30. It's so simple to setup a container where all the items can be disposed. Sustainability student labor comes by and picks up the bag later in the afternoon. We have received many positive comments from both regular attendees and guests that it's nice that this is being done in our area."

*Marsha L. Elliott*, Office Manager, Campus Christian Center

# Project Anecdotes (cont.)

“In spring of 2018 Career Development hosted a “lunch with the recruiter” event for students. After the event, a faculty member commented on all the excess waste because the caterer used so many boxes and wrappers for their food. I had always ordered from that caterer because I thought it was fast and easy for me to give out lunch boxes to all the students... but there was a big pile of empty boxes that couldn’t be recycled and we were part of the problem!”

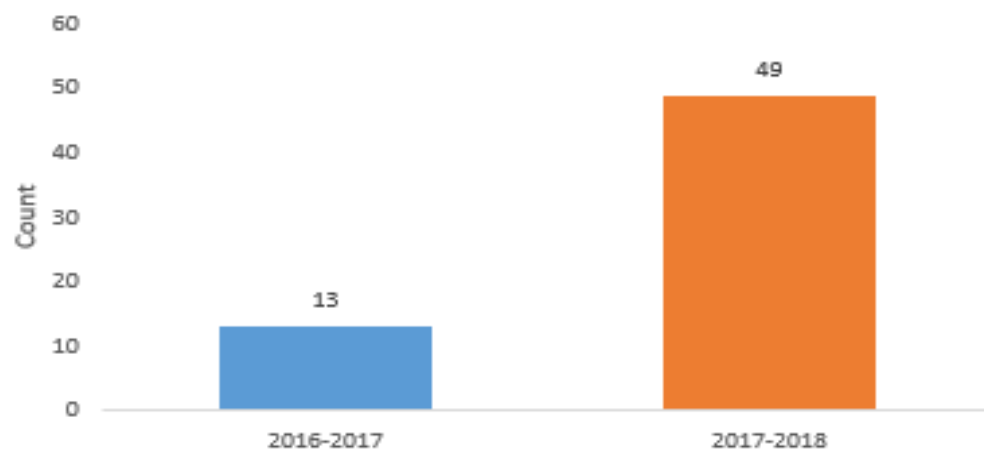
“Joan followed up with me after this event, it was eye opening for us to learn how critical it is for our office to make a commitment to sustainability. After a few changes, we’ve been able to make most of our lunch workshops and events “no waste” events. Not only are we talking to caterers about offering different packaging, but we (staff and labor students) are much more conscious of our own behavior, in and outside of the office.”

*Amanda Clemens Tudor, Director of Career Development*

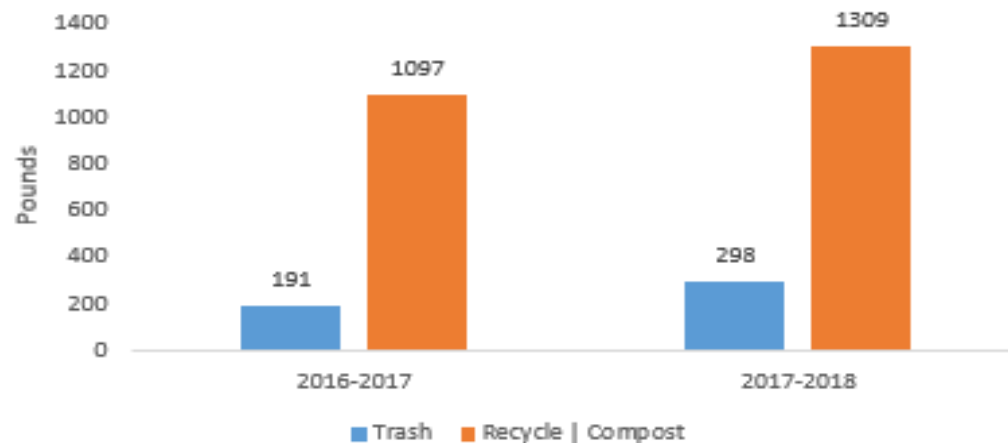


# ZERO WASTE EVENTS REPORT

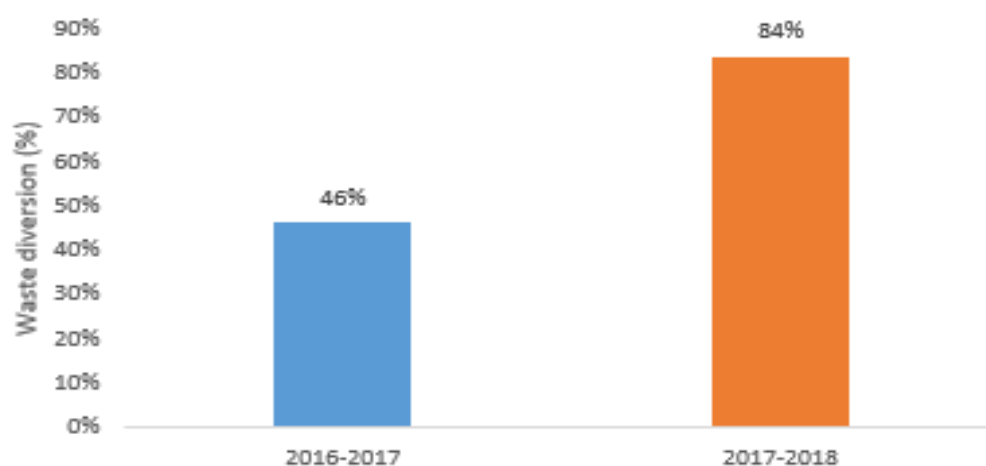
## Number of Zero Waste Events



## Zero Waste Yearly Comparison



## Percent of Zero Waste Events Achieved



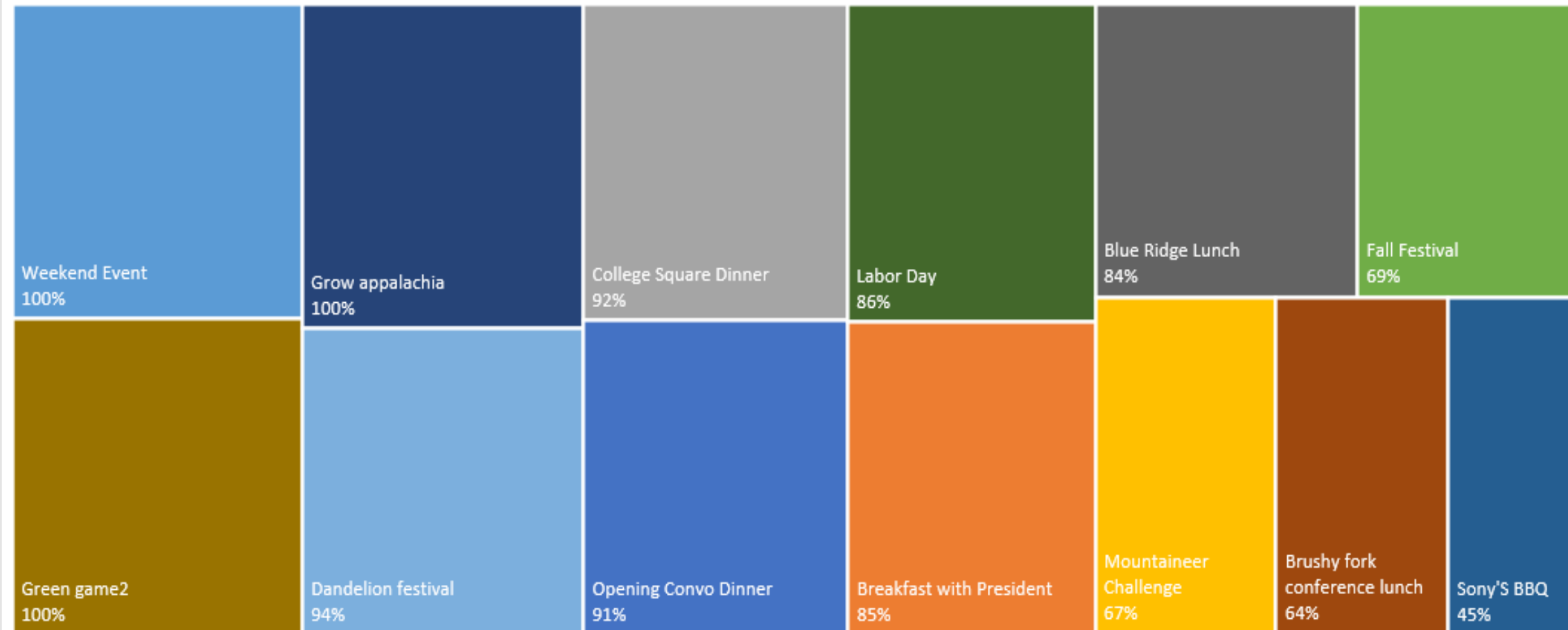
Percent increase in zero waste events 2016-2017 to 2017-2018.

# 82%

\*Zero waste = 90% waste diversion.

# All Events

2016-2017



# All Events Continued

2017 - 2018

