

# The Road to Zero Waste

Arizona State Fairgrounds



# Roadmap

Problem Overview

Composting Brief

Framework & Visioning

Case Study

Public Education

Staff Participation

Disincentives

Measuring Success



# Fairground Waste

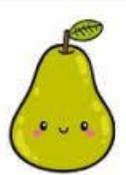
Governor Ducey's survey from about one year ago identified waste reduction as a desirable way to revamp the state fair.

Arizona Department of Environmental Quality (ADEQ) teamed with the State Fair, targeting the following items with these results:

- Cardboard –  $\frac{3}{4}$  of a 40 yard roll off filled, but was contaminated with bags of trash
- Manure – 35 tons composted with the City of Phoenix, 10 tons contaminated with trash
- Food Waste – fell through and was not attempted
- Plastic bags & film – fell through and was not attempted, received 2 empty gaylords with tops to collect material in

# Zero Waste Focus: Compost

Events held at the Arizona State Fairgrounds face a collective action problem in terms of food waste and its disposal. Our aim is to create a zero waste environment that diverts all food waste to composting and eventually eliminates landfill contributions completely.



# Compostable Goods

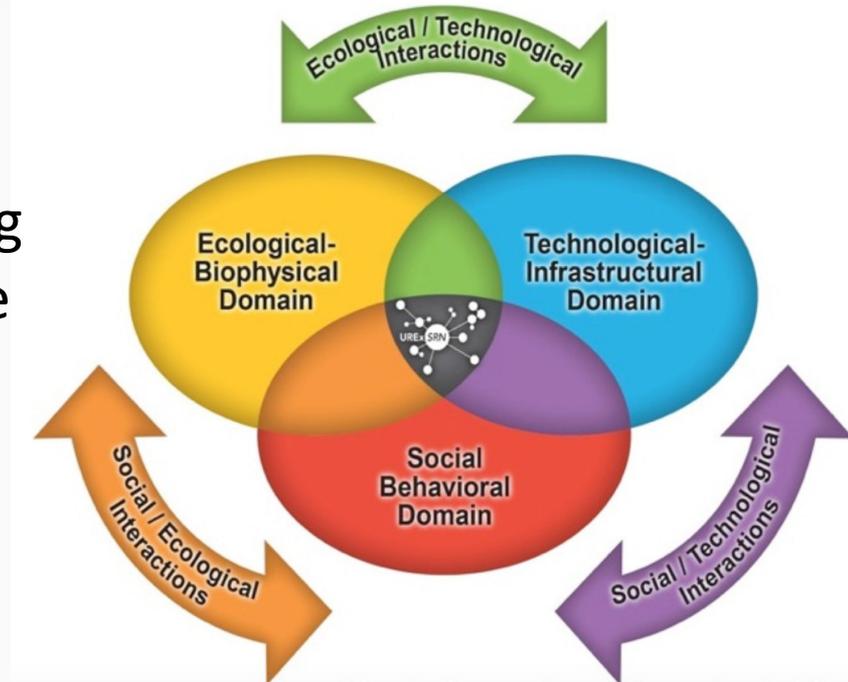
Some of the compostable items found at the fair include:

- Most food items, including meat, fruit, and vegetable scraps
- Paper fast food wrappers, napkins, and paper towels
- Pizza boxes
- Cups, utensils, and plates that are certified compostable



# Social-Ecological-Technological Systems (SETS)

- Goal setting
- Long-term thinking & planning
- Scenarios to explore desirable futures
- Frame problem → define timeline → create scenarios



# Transformative Scenario

Zero waste of any kind, effective  
immediately

# Strategic Scenario

Business as usual

Continue composting manure

Have success collecting cardboard

# Adaptive Scenario

Plausible Scenario: zero food-related waste by 2025



# Materials to be Phased Out

Lids and Straws

Bulk Condiments

Cans instead of glass

Napkins

Styrofoam

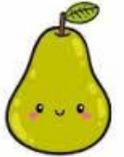
Plates/food containers

Silverware and Skewers

Plastic bags and wraps

Cooking oil must be vegetable oils

Prepackaged foods



# 2019: Phase 1

All straws and lids will be banned.

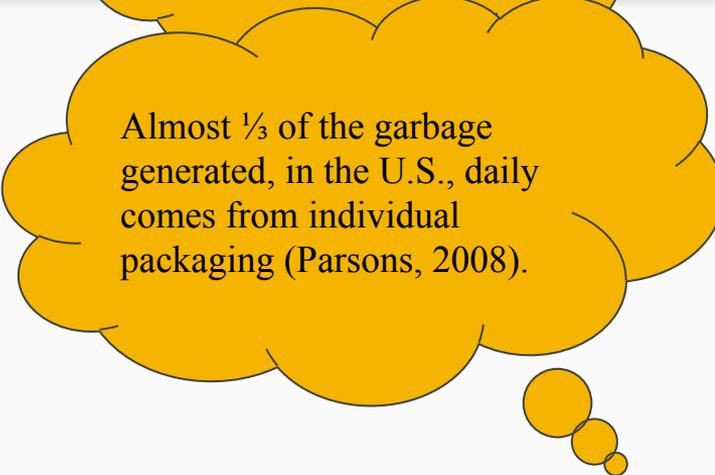
Only bulk condiments will be allowed, instead of individual packages.

Vendors will be required to sign a contract.

Fines for violations of the contract will be implemented.



In the U.S., we use 500 million straws a day, which is enough to wrap the Earth's circumference 2.5 times ([thelastplasticstraw.org](http://thelastplasticstraw.org)).



Almost  $\frac{1}{3}$  of the garbage generated, in the U.S., daily comes from individual packaging (Parsons, 2008).

# State Fairgrounds Vendor Guidelines & Contract

## 2019 Zero Waste Food Vendor Guidelines

Thank you for your participation in the 2019 (title of event) at the Arizona State Fairgrounds! We are proud to be promoting Zero Waste events and excited about your valued participation.

With your help, we can reach our goal of Zero Waste at our venue through distributing permitted materials, designed to completely phase out anything that cannot be reused, recycled or composted by the year 2025. In a recent survey put out by Governor Ducey, respondents identified waste reduction as a desirable way to revamp the state fair. Already, nearly half of all landfills throughout the United States have been closed due to full capacity or groundwater contamination. Zero Waste reduces our ecological impact while promoting a sustainable system of managing our resources.

Food vendors are key components to reaching our Zero Waste goal, as a large amount of waste generated is food related.

In 2019, events held at the Arizona State Fairgrounds will adhere to the following

**Compostable Food Service Policy:**

1. Non-recyclable/reusable Lids and straws will be prohibited
  - a. Reusable souvenir cups or buckets are acceptable
  - b. Compostable paper straws are acceptable
2. Condiments must be offered in bulk containers
  - c. Individually wrapped sauces/condiments are prohibited
3. Vendors in noncompliance will be asked to remove items
  - d. If items are not removed, vendors will receive a fine.

The Arizona State Fairgrounds are providing support to reach this Zero Waste goal by:

- Providing (#) of Resource Recovery Stations throughout the venue
- Staffing Resource Recovery Stations with trained volunteers
- Educating and incentivizing vendors and visitors to participate in Zero Waste efforts
- Coordinating waste pickup

I, \_\_\_\_\_, agree to comply with the Compostable Food Service Policy.

Print name

\_\_\_\_\_

Date

\_\_\_\_\_

Signature

Adapted from the Evergreen State Fair 2017 Zero Waste Food Vendor Guidelines

<https://snohomishcountywa.gov/DocumentCenter/View/45844>

# 2020: Phase 2

All vendors must use compostable/recyclable food service ware.

This includes: plates/food containers, napkins, utensils, skewers, straws, and lids.

Beverages traditionally served in glass bottles must be served in aluminum cans or souvenir cups.

Six million tons of non-durable plastics such as eating utensils and food wrappings are discarded annually (Mishkin, 2016).

Aluminum has a smaller carbon footprint than glass; it has more recycled content than any other beverage container at 68%. If a new can is made of recycled content it requires 95% less energy (Kim Moratta, director of social sustainability at MillerCoors).

# 2021: Phase 3

All vendors must be in compliance following a strict no plastic bag/plastic wrap policy. Styrofoam as well.

Reusable souvenir bags will be handed out instead in accordance to the new phase.

Vendors must find other viable options that reduces chances of environmental impact.



Much of the plastic ever made still exists. Worldwide, as many as one trillion plastic bags are used each year and less than 5 percent of plastic is recycled.

(<https://blog.epa.gov/blog/2016/11/confronting-plastic-pollution-one-bag-at-a-time/>)



In the United States, according to the EPA, we use over 380 billion plastic bags and wraps yearly, requiring 12 million barrels of oil to create.

# 2022: Phase 4



All vendors must be in compliance with cooking oil disposal, or be fined.

Vegetable oils can be added to the compost.

Contaminated cooking oils must be properly collected and recycled, Grand Natural.

EPA categorizes vegetable oils and animal fats with petroleum and non-petroleum oils.

(<https://www.epa.gov/emergency-response/vegetable-oils-and-animal-fats>)

Vegetable oils such as olive, corn, grapeseed, or sunflower oil can be composted if they haven't come in to contact with meat or cheese.

# 2025: Zero Food Waste

By 2025, the Arizona State Fair will have...

- A fully implemented composting system
- Accessible recycle and composting bins
- Support from volunteers, employees, and fairgoers
- Full vendor cooperation

Arizona  
State Fair  
2025



**Sustainable Practices and Zero  
Waste Procedures**

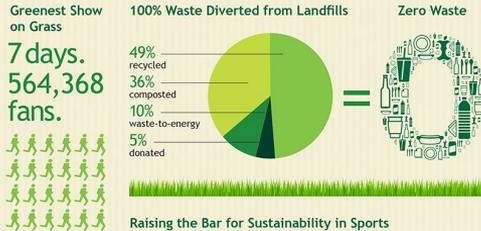
A guideline for vendors, employees, and fairgoers

# Case Study - Waste Management Phoenix Open



## ✓ Zero Waste Success.

For the third consecutive year, the 2015 Waste Management Phoenix Open transformed the tournament into a Zero Waste event.

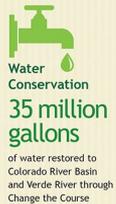


### Raising the Bar for Sustainability in Sports

For the third year, the WMPO earned UL Environment's highest landfill diversion rate designation, "Zero Waste to Landfill Operations with 10% Incineration with energy recovery."

The WMPO elevated the Council for Responsible Sport certification from Gold to Evergreen status, making it the largest event and the first-ever PGA TOUR to achieve Evergreen certification.

For more information and the full 2015 WMPO Sustainability Report, visit [ThinkGreen.com](http://ThinkGreen.com).



### Reuse and Donations

**25,000+ pounds**  
Mesh fencing, carpet, turf and used vinyl banners donated to Habitat for Humanity ReStore

**More than 75%**  
Signage stored for possible reuse in 2016

**53,082**  
Square feet of signage reused from 2014

THINK GREEN.®

- Achieved zero waste in 2013.
- Zero landfill bins on course, only clearly labeled compost and recycle bins.
- All waste is composted, recycled, converted to energy, or donated.
- Vendor participation and fan education.

# Public Education / Involvement

100% Waste Diverted from Landfills

49%  
recycled  
36%  
composted  
10%  
waste-to-energy  
5%  
donated

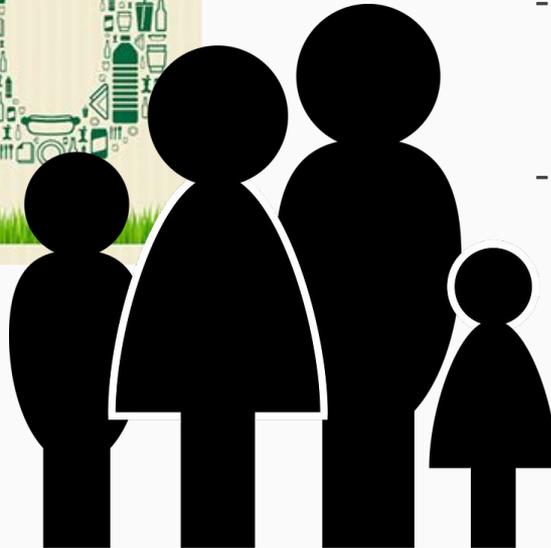


Zero Waste



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- Make the zero waste goal known.
- Provide information on how their participation makes a difference.
- Clearly label bins to minimize contamination.



# Resource Recovery Stations

## Uniform look

- Same order of bins
- Everywhere there is landfill trash, there must be receptacles for each Stream
- Color coded bags for easy sorting

## Key Locations

- Entrance
- Seating areas
- Exit



# Attendees	<100	100-500	500-1000	1000-5000	5000-10,000
Recommended # of Stations	1-3	3-5	5-8	8-12	12-15

# Event Staff Participation

Volunteers will need:

- Gloves and tape
- Extra liners for receptacles
- Information sheets on what can be recycled and composted
- Venue map
- Contact information for zero waste lead

Bag runners to take filled bags to back end diversion

Making it convenient for vendors to switch to recyclable products by providing them with:

- Clear list of policies
- Clear list of sources for compostable items along with pricing



# Disincentives



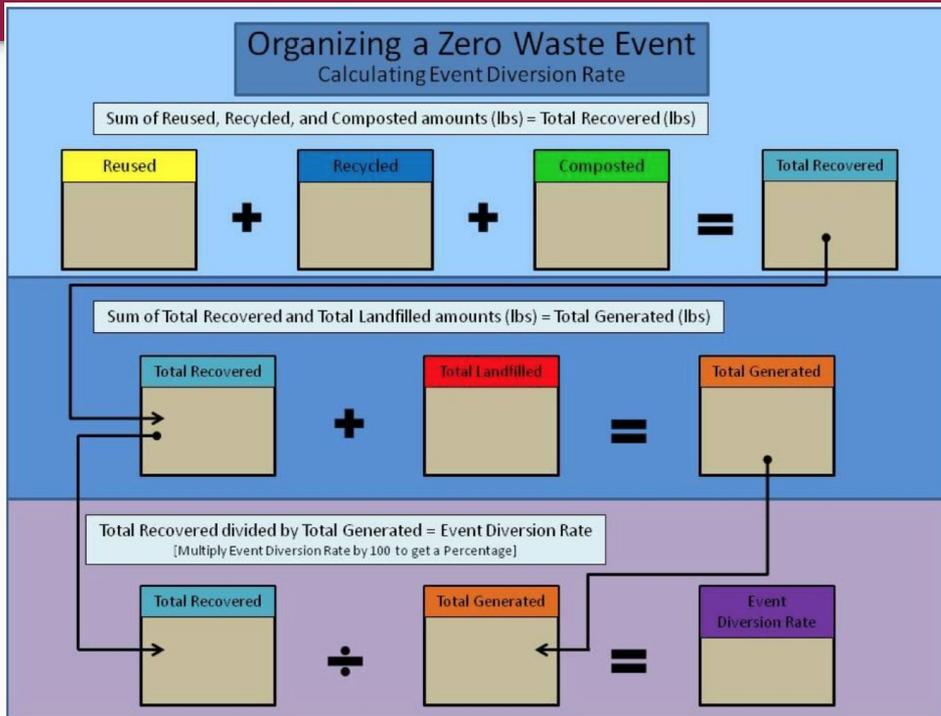
Fines for not adhering to fair policies.

Requiring a refundable recycling deposit when vendors' permits are applied for.

A pay as you throw system for vendors to lower the amount of waste they generate.

State or federal laws requiring large venues to divert a specific amount of their waste.

# Measuring Success



- Track the number of dumpsters filled for compost and recyclables OR weigh bags
- Get tonnage measurements of compost from Recycled City
- Distribute online surveys to volunteers, vendors, and attendees

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