



## Zero-Waste Guidelines for Events & Festivals in Miami, FL



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**Miami  
Chapter**

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# Introduction: The Philosophy of Zero-Waste

Our current approach to plastics and waste management functions linearly.\* We produce an object, consume it, and finally discard it without understanding the components of that object or where it may end up at the end of its life. With this linear model, we assume that we have infinite resources and infinite disposal capacity; however, with growing populations and increasing disposal of single-use plastics and other materials, we are quickly realizing these assumptions are false.

## Current Approach to Plastics & Waste Management Assumes Two Fictions



A closed-loop approach to the management of plastics and waste based upon the concept of zero-waste will support itself indefinitely. The “5Rs” framework provides a mechanism through which to implement zero-waste initiatives.

## Zero-waste Lifecycle Approach to Plastics & Waste Management

- **Reduce** consumption of single-use products
- **Reuse** existing products as long as possible
- **Recycle** products that cannot be reused
- **Recapture** waste for use as raw materials
- **Redesign** recaptured material into goods that we need and reuse.



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\* While the zero-waste philosophy can be applied to any resource, these Guidelines target eliminating trash to the landfill.

# The Importance of Zero-Waste at Events & Festivals

Any trash, from plastic cups to beer cans to plastic bags, can find its way into the ocean becoming “marine debris.” Because the ocean is always the last place for water to drain to, any trash littering the ground or blown into nearby streets from trash cans or landfills can become marine debris. Massive quantities of marine debris circulate across the globe, including 5.25 trillion pieces of plastic<sup>1</sup> – a staggering 13 times greater than the amount of stars in our galaxy. One day last year, volunteers removed 17,500 lbs. of marine debris from 40 cleanup sites in Miami.<sup>2</sup> Further, because Miami-Dade County’s landfills will be filled by 2017,<sup>3</sup> we are running out of space to put trash, which subjects any trash created to overflowing from our landfills and entering the ocean.



A crew rows through the Great Pacific Garbage Patch, a 7 million square mile patch of garbage in the Pacific Ocean (left). Pelican dives to eat a piece of plastic in Miami, FL (middle). Plastic enters our waters through the storm drains on Miami Beach, FL (right).

With over 10 million tons of plastic waste entering our oceans each year,<sup>4</sup> scientists project the amount of plastics in the ocean will outweigh fish by 2050.<sup>5</sup> Plastics severely impact marine life, the economy, and public health. Nearly 700 species of marine life are affected by marine debris through entanglement and ingestion,<sup>6</sup> including 90% of seabirds that have consumed plastic.<sup>7</sup> Marine debris eliminates tourists’ desire to visit popular beach destinations subjecting coastal communities dependent upon tourism, such as Miami-Dade County’s \$6.3 billion ocean tourism industry, to severe decline.<sup>8</sup> Lastly, harmful toxins move up the food chain and onto our dinner plates as more fish eat microplastics mistaken for food.



Debris Free Oceans sells reusable cups at festivals (left) and includes cups in the ticket price at its Eco-Fashion Show (right).

Events and festivals provide a unique arena to implement zero-waste policies. Not only will zero-waste initiatives at events or festivals dramatically decrease our impacts on the ocean, but they will also inspire the greater community to adopt a zero-waste ethic into their daily lives. Ultimately, zero-waste events and festivals can serve as catalysts for further environmental stewardship.



# Objectives, Methods, & Metrics

The following charts will highlight certain objectives an event or festival should strive towards in order to become zero-waste. Each objective will contain methods for implementation and a key performance indicator to demonstrate measurable impacts. Objectives are divided into “beginning of lifecycle” and “end of lifecycle” management strategies for limiting event and festival landfill waste.

## *Beginning of Lifecycle*

The most effective means of limiting an event or festival’s impact on the marine environment is to eliminate the waste before it has the opportunity to be created. The following objectives will eliminate an event or festival’s opportunity to create landfill waste.

Objectives	Methods	Metrics
Eliminate single-use plastic water bottles	<ul style="list-style-type: none"><li>• Provide water refill stations</li><li>• Sell or provide reusable water bottles/cups (See next objective below)</li><li>• Provide compostable paper cups</li></ul>	% of reusable bottles sold/used versus bottled water
Eliminate single-use plastic beverage cups <sup>†</sup>	<ul style="list-style-type: none"><li>• Sell or provide reusable stainless steel cups</li><li>• Implement steel cup deposit program</li><li>• Include cup with ticket purchase</li><li>• Keep beers in can or bottle – do not pour in cups</li></ul>	# of plastic cups purchased and used
Eliminate straws & swizzle sticks	<ul style="list-style-type: none"><li>• Do not provide straws at the event</li><li>• Instruct bartenders only provide straws when asked</li><li>• Stir drinks with common spoon</li></ul>	# of straws purchased and used
Reduce waste from marketing material	<ul style="list-style-type: none"><li>• Focus on web and electronic publication</li><li>• Use recycled paper and eco printing dyes</li></ul>	Lbs. of marketing materials used and % waste
Reduce waste from signage	<ul style="list-style-type: none"><li>• Avoid printing dates on banners so signage may be reused in subsequent years</li></ul>	Lbs. of waste produced and % recaptured for reuse
Reduce waste from clothing swag sales	<ul style="list-style-type: none"><li>• Sell products, like clothing or bags, made from reclaimed materials, cotton, or hemp (no plastic)</li></ul>	% of clothing made from each type of materials
Reduce beer can/bottle waste	<ul style="list-style-type: none"><li>• Provide attendees with locally brewed beer on tap in their reusable cups instead of canned or bottled beer</li></ul>	Gallons of beer from kegs sold



*Water refill station and stainless steel reusable bottle and cup photographed above.*

<sup>†</sup> Regardless of the recycling symbol indicated on single-use plastic cups, these cups are not recyclable in Miami, Florida as of March 5, 2016.



## End of Lifecycle

Despite efforts to eliminate waste prior to its creation, more waste will be created and require proper disposal. The following objectives will enhance an event or festival's ability to divert materials from the landfill.

Objectives	Methods	Metrics
Establish multiple waste streams – compost, recycling, and landfill waste	<ul style="list-style-type: none"> <li>Each “trash” location should have a three-piece bin for compost, recycling, and trash</li> <li>Obvious signage should clearly denote proper waste disposal procedure</li> </ul>	Lbs. of compost, recycling, and landfill waste collected % of landfill trash
Reduce food packaging waste	<ul style="list-style-type: none"> <li>Coordinate with food vendors to use all compostable materials, including cutlery</li> </ul>	Lbs. of landfill waste produced
Enhance composting and recycling	<ul style="list-style-type: none"> <li>Opt for aluminum beverage containers over glass</li> <li>Provide event staff and vendors with waste management protocol to ensure consistent information dissemination to all attendees</li> <li>Simplify contamination detection by using clear garbage bags</li> <li>Coordinate with compost and recycling companies to pick up all waste at the end of the festival</li> <li>Ensure composting and recycling methods are compatible with local composters and recyclers</li> <li>Encourage attendees to collect bottles and cans in exchange for event or festival swag</li> </ul>	Lbs. of compost, recycling, and landfill waste collected % of landfill trash
Reduce uneaten food waste	<ul style="list-style-type: none"> <li>Donate unused food to local charity that feeds those in need</li> </ul>	Lbs. of food donated to charity
Reduce cigarette butt litter	<ul style="list-style-type: none"> <li>Strategically place cigarette butt trash cans</li> <li>Provide attendees with pocket ashtrays</li> </ul>	Lbs. of cigarette butt litter collected
Reduce waste from signage	<ul style="list-style-type: none"> <li>Signs can be made from wood if they require specific dates and cannot be reused the next year</li> </ul>	Lbs. of signage composted



*Examples of three-piece waste stream bins and cigarette trashcan are photographed above.*

# Implementation Strategy & Cost

Objective: Eliminate single-use plastic water bottles

- Strategy 1: Purchase of water bottle includes unlimited access to free water refill stations.
- Strategy 2: Provide attendees with a reusable water bottle with their ticket purchase, noting that the attendee will have access to unlimited free water if the bottle is brought to the event.
- Marketing: All water bottles can be branded with the event or festival name
- Cost: Water bottles can be sold at a mark-up subjecting the host to an initial upfront cost that will be recaptured, or the ticket price may be increased to compensate for the bottle so there are no upfront costs. Volunteers can staff the water refill stations.

Objective: Eliminate single-use plastic beverage cups

- Strategy 1: Vendors and bars can sell the cups. Attendees will be incentivized to purchase them if they are included with the first drink.
- Strategy 2: Provide attendees with a reusable cup with their ticket purchase.
- Marketing: All cups can be branded with the event or festival name
- Cost: First drinks can be sold at a slightly higher cost to offset cup cost, or ticket price may be increased to compensate for the cup so there are no upfront costs.

Objective: Eliminate straws & swizzle sticks

- Strategy 1: Do not purchase straws or swizzle sticks for the event or festival
- Strategy 2: Instruct bartenders to only provide straws when asked
- Cost: Host will save money by purchasing less or no straws.

Objective: Reduce beer can/bottle waste

- Strategy 1: Provide attendees with a locally brewed “on tap” option in lieu of bottled or canned beer, including a reusable cup with the first beer purchase.
- Cost: Because kegs are cheaper than bottled or canned beer, the host will have a higher return on beer sales, which can offset the initial cost of the cups.

Objective: Establish multiple waste streams – compost, recycling, and landfill waste

- Strategy 1: Encourage local artists to design visually-appealing and informative sets of waste bins, including a compost, recycling, and trash bin
- Strategy 2: Contract with Waste Management to provide bins
- Cost: Volunteers will create the visuals for the signage for free entry tickets. Waste removal services are required regardless of whether there are multiple waste streams so costs will not increase.

Objective: Reduce food-packaging waste

- Strategy 1: Each vendor at the event or festival can be required to ensure all disposables used are compostable
- Strategy 2: Each vendor can be required to use one particular compostable materials company
- Cost: Any cost is passed through to the vendor, and the host may even make a commission should they decide to require all vendors to use a particular compostable materials company

Objective: Enhance composting and recycling

- Strategy 1: Ensure pre-event or festival marketing highlight zero-waste efforts
- Strategy 2: Ensure trash bins are also located next to recycling and compost bins to make recycling and composting easy on attendees
- Strategy 3: Establish a recycling for swag program
- Cost: Zero-waste event marketing can be incorporated into ongoing marketing strategy. Swag to recycling program will require merchandise to be distributed at no cost.

Objective: Reduce uneaten food waste

- Strategy 1: Partner with local charity to provide leftovers to those in need
- Strategy 2: Require all vendors to partner with a charity to provide leftovers to those in need
- Cost: None

Objective: Reduce cigarette butt litter

- Strategy 1: Install standing cigarette butt trashcans near trash bins and other high smoking traffic areas
- Strategy 2: Provide attendees with pocket-sized cigarette ashtrays
- Cost: Rental of cigarette butt trashcans or purchase of pocket-sized ashtrays; however, a local nonprofit may be able to sponsor the event with the trashcans and ashtrays.



## Examples from Other Events & Festivals

**Bonnaroo** - In 2015, Bonnaroo diverted 197.66 tons of waste from the landfill by implementing its “Refill Revolution” Program.



*“There was so much demand for [the Refill Revolution Program] last year that we knew we had to bring it back. We almost doubled the amount of cups sold as well as the amount of water bottles kept out of the landfill, thanks to our water refill stations.” – Quote from Bonnaroo’s 2015 Annual Report to the Fans and photo from Coachella website.*

**Coachella** - Through Coachella’s “TRASHed” Program, the festival engages local artists to enhance recycling. Artists submit designs to Coachella, which will be used as the recycling bins throughout the festival. Artists post their concept online and tag Coachella bringing awareness to the festival’s initiative to better their recycling efforts as well as notoriety to the Coachella brand.



Photos from Coachella website.

***Coachella*** — The “Recyclosaurus Rex” provides attendees with an artistic and engaging method of recycling while also providing Coachella with ample photo and marketing ability.



Photos from Coachella website.

***Coachella*** — Coachella’s “Recycling Store” incentivizes attendees to collect bottles/cans/cups that are found on the Coachella grounds in exchange for event merchandise (including reusable bottles and cups).



Photo from Coachella website.



***High Sierra Music Festival*** — In partnership with Clean Vibes, this Festival diverts tens of thousands of pounds of recyclables from the landfill by using triple-stream waste bins placed closely together.



Photo from High Sierra Music Festival website.

***Lollapalooza*** — Through its water refill program over the past four years, Lollapalooza has poured enough water to fill over a million single-use water bottles. Lollapalooza also offers raffle entries for those who collect recyclables at the event through its Rock & Recycle Program.



Photos from Lollapalooza website.



# Conclusion

Events and festivals encouraging zero-waste significantly increase community engagement and appreciation for the event or festival. Costs of implementing zero-waste initiatives are easily recaptured, and the promotional and marketing possibilities of a green event or festival far exceed traditional, wasteful events or festivals. As a city known for nightlife, events, and parties, Miami should be taking the lead in zero waste initiatives, and these Guidelines are a stepping-stone for local events and festivals to start taking action now to protect our beaches, reefs, and oceans into the future.

## Citations

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<sup>1</sup> Eriksen, Marcus et al., "Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea." *PLOS One*. Published 10 December 2014. Available at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0111913>.

<sup>2</sup> Volunteercleanup.org, International Coastal Cleanup Day statistic provided by Executive Director, Dara Schoenwald.

<sup>3</sup> Miami-Dade County, Solid Waste and Recycling, Table 4 at page 3. 2008.

<sup>4</sup> Lawson, T.J. et al., "Characteristics of marine debris that entangle Australian fur seals (*Arctocephalus pusillus doriferus*) in south Australia," *Elsevier*. Published 21 May 2015.

<sup>5</sup> World Economic Forum. "The New Plastics Economy: Rethinking the Future of Plastics." January 2016. Available at: [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf).

<sup>6</sup> Gall, S.C. et al., "The Impact of Debris on Marine Life," *Science Direct*.

<sup>7</sup> Wilcox, Chris et al. "Threat of plastic pollution to seabirds is global, pervasive and increasing." *PNAS*. Published 2 July 2015. Available at: <http://www.pnas.org/content/112/38/11899.abstract>.

<sup>8</sup> NOAA, Ocean Jobs Snapshot: Miami-Dade County, Florida. 2012. Available at: <https://www.coast.noaa.gov/snapshots/#/process?action=ocean&state=12&county=086&bounds=null>. See also Balance, A., Ryan, P.G., and J.K. Turpie, How Much is a Clean Beach Worth? The impact of litter on beach users in the Cape Peninsula, South Africa, *South Africa Journal of Science* 5:210-213 (2000).