

Julie's Bicycle Practical Guide:



Waste Management at Outdoor Events

The arts and creative industries are ideally placed to lead on environmental sustainability; with creativity and inspiration they can champion a greener economy, energy efficiency, challenge our reliance on fossil fuels, make creative use of otherwise wasted materials and open new ways to greener production and living.

Waste at Outdoor Events: Version 2014

Julie's Bicycle Practical Guide: Waste Management at Outdoor Events

What this guide will cover

This guide will help organisers of outdoor events develop an environmentally sustainable approach to managing waste.

It provides pre-event, event delivery and post-event actions and specific topics include: the waste hierarchy, waste types, waste processing facilities, writing waste management plans and communicating with contractors.

Who is this guide for?

This guide is aimed at anyone involved in waste management decision making at events, particularly event managers, procurement managers and site managers.

What this guide will not cover

This guide focuses on waste management in the context of environmental sustainability and is not intended to be a comprehensive overview to waste management in general at outdoor events.

Further artform specific information, case studies, and support can be found on the Julie's Bicycle website: <http://www.juliesbicycle.com>

Creating the Conditions for Change

There are four key stages to taking action on environmental sustainability:



- **Commit:** put in place the structures, resources, policies and responsibilities necessary to support and action your initiatives.
- **Understand:** understand your impacts and establish systems to measure and monitor them on a continuous basis.
- **Improve:** implement an action plan to reduce your environmental impact.
- **Communicate:** engage your stakeholders including your team, suppliers and audiences; share and exchange knowledge with others in the industry.

Your success at integrating environmental sustainability into the way you work is often dependant on the internal culture of your organisation and the resources available to you.

Your key ingredients are: **knowledge; skills; time and enthusiastic people.**

It's important that the whole organisation should be involved in the process; this is an opportunity to test new ideas, build support and use existing experience.

Without people buy-in, you will at best limit, and at worst fail, to achieve your goals.

And finally, some dedicated, even if modest, budget is also helpful!

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Introduction

Waste is a big feature in our daily lives, and it's easy to forget that it's a relatively modern issue.

It is a massive global challenge, and a consequence of us using too much stuff. We are facing resource scarcity, environmental contamination of our land and oceans and climate change. It's up to us to get smart and think seriously about the way we use our materials, and to find environmentally sustainable ways of disposing of them.

Waste is a huge part of an event's carbon footprint, and environmental impact, (68% of waste from an outdoor event goes to landfill) and can be a big administrative headache for events' organisers.

Bad waste management can lead to negative media coverage and reputational damage, particularly if the audience or local community is affected.

On the up side, there are cost incentives in managing waste sustainably with landfill taxes rising and free servicing available for waste streams, and this guide will help steer you in the right direction. It will help you make cost effective decisions, which will enhance your events' reputation, audience experience, and it's good for the environment!

Events are spaces where audiences are receptive to new ideas and can inspire behavioural change. It's up to your as events organisers to use this an opportunity to send strong messages and set examples through sustainable waste management in order to maintain this behavioural change beyond your event.

A survey of festivalgoers undertaken by Buckinghamshire New University and A Greener Festival found that 43.1% of respondents say they have changed their behaviour as a result of green initiatives encountered at a festival.

The Waste Hierarchy

This Guide uses the European waste hierarchy (shown below) as outlined in the EU's Revised Waste Framework Directive (2008) as a structure to help you prioritise your actions. The waste hierarchy addresses the impact of different waste management options on climate change, air and water quality, and resource depletion, as well as the impacts from transporting waste.



Starting Points

Define your aims



Use the European waste hierarchy to prioritise your aims. Here are some examples of specific targets:

- Increase recycling rates.
- Aim for zero waste to landfill.
- Reduce or eliminate the use of disposable plastics.
- Increase the amount of composting of food waste.
- Reduce the total amount of waste produced.
- Reduce the number of waste streams and restrict to recyclable materials.
- Engage the audience in recycling initiatives.

Aims and targets will be defined by a number of factors: your starting point; the nature of the event; types of waste; the waste facilities available to you locally and the services offered by your waste contractor. However the general approach outlined in this guide applies to all event types and sizes.

Zero Waste / Zero Waste to Landfill?

The UK's Waste Reduction Action Program (WRAP) was set up to promote a 'world without waste' in 2000, and launched the Zero Waste Events 20:20 Vision in 2013. WRAP is a publicly funded not for profit company set up to promote resource efficiency in all sectors of the UK economy. The 20:20 Vision sets out a roadmap for the events industry to achieve zero waste to landfill.

Is it possible? The waste management sector across the UK is responding to European directives, financial incentives in a changing economic landscape, and the landfill escalator tax with the creation of many new facilities to separate waste more effectively. This has led to better availability of local recycling and composting facilities and better systems for unsorted waste to be separated and processed. Zero Waste to Landfill is currently achievable to some events with the waste management facilities available to them locally and depending on how effective their on-site systems are.

The Zero Waste to Landfill approach relies on claiming as much material as possible from waste streams for recycling and reuse, and then using the remaining materials for 'waste to energy' – such as biogas from compostable material or burning waste to create electricity or heat. It is sometimes criticised as a concept for encouraging the incineration of waste for energy rather than reducing the amount of waste generated in the first place, however the ultimate aim should be zero waste, with no materials or resources deliberately destroyed.

For more information on this topic, please refer to the resource section of this guide for links.

Pre-Event Actions



Establish what types and amounts of waste you are generating

Start by assessing the estimated types and amounts of waste you are expecting and from what sources: this will inform planning from the outset. Here are some suggestions.

- Include a waste estimation form as part of your trader obligations and combine the information to provide an overview of types and amounts of waste expected.
- This is usually combined with providing a checklist of banned materials and information about the recycling systems in place to traders. Some events require this already and collect information online using a Google Form or similar.
- A waste analysis (see After the Event section for details) of a previous event, or an analysis of waste samples to establish the make-up of waste from certain sources e.g.: bagged waste from campsites or traders you will get a clear indication of the amount of potential for improving recycling rates and the materials you will be dealing with.



Julie's Bicycle's Creative IG Tools

Carbon calculators can help you to understand where your environmental impacts lie, which will help you to create effective management strategies to reduce the negative impacts we have on the environment. The Julie's Bicycle's Creative IG Tools are a suite of carbon calculation tools designed specifically for creative and cultural organisations to help you to measure your carbon footprint on an annual or per activity basis. There is a Tool for Festivals and Outdoor Events allowing you to track impacts including energy use, water use, waste, and audience travel according to industry specific metrics.

www.juliesbicycle.com/industry-green/ig-tools

Julie's Bicycle Benchmarks

Julie's Bicycle also publishes a series of online benchmarks, which you can use to see how your festival or outdoor event compares to the industry average on waste produced, recycling rate, and energy used. The benchmarks are given on a per audience day basis (i.e. per person on site per day). They are based on data collected through Julie's Bicycle Creative Green certifications, the Creative IG Tools, and partner organisations from across the cultural sector:

www.juliesbicycle.com/resources/benchmarks

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SUSTAINING CREATIVITY

Waste Types



Here are some Common Types of Waste at Events:

Type	Source and amounts of waste	Thoughts on recycling
Glass	Amount largely depends on admissions policy and type of event such as camping events.	Glass is easily recycled, either as part of a mixture dry recyclables or preferably as single, colour separated material.
Plastics	Sources include drinks bottles, bar cups, packaging, sponsor materials and signage.	It is important to separate recyclable from non-recyclable plastics to ensure that materials can be reclaimed.
Food Waste	Normally from catering, kitchen areas, dressing rooms.	Should be high on your list for segregation as it causes high negative impacts in landfill and is costly to the environment due to the high impacts caused by its production. Collection services have become more prevalent across the UK in recent years. Food should be kept free of contaminants as much as possible. Cooked food can also be mixed in many services; however you should check requirements with your contractor.
Metals	Aluminium cans, food packaging from concessions and infrastructure waste e.g. damaged fencing and banding strips.	Nitrous Oxide (N ₂ O) canisters can be a problem for some events as they are not easily recycled in the UK. There are usually opportunities for receiving payment for metals.
Clinical Waste	Waste from medical provision including syringes and used bandages.	Should be dealt with by a specialist medical waste contractor.
Wood	Large amounts of wood is often used in creative projects and site infrastructure.	Wood can be reused if you have storage, or recycled or chipped for other uses. Generally it requires nails and screws to be removed so that chipping machinery is not damaged. Consider reusing sets at future events, or offering them to a company which repurposes stage sets.
Textiles	Usually from clothes in lost property or art projects.	Textiles are easily reused or recycled. If your contractor is unable to recycle them, you should consider using local clothes banks or donate to charities which can resell or repurpose clothing.
Tents	Frequently abandoned at event campsites.	This is a big issue. Tents are not easily recycled due to the mixture of materials used in their production. Various initiatives seek to encourage a reduction in tents being left at events – e.g. the Love Your Tent Campaign.
Hazardous Waste	Typically evident at events are plasterboard, aerosol cans and paint tins.	Be aware of what is classed as hazardous waste, as it must be dealt with according to strict legal guidelines. Hazardous waste should be stored separately and dealt with by your waste contractor.

Miscellaneous	Events vary greatly and so do their waste streams. Common materials which are difficult to deal with include furniture (bulky and mixed composition), polystyrene, sponsor materials and wristbands.	Work with your contractor to find the best solutions for your miscellaneous waste, or better, design policy to limit the amount of these materials on site in the first place.
Biodegradable serve-ware	Predominantly from catering and bar concessions.	<p>When mixed with recyclable products such as plastics, glass and newspaper, food is often considered a critical contaminant which can cause the rejection of otherwise clean loads of material. This makes the recycling of 'serveware' (cups, plates and cutlery) difficult because, by their nature, they have been into contact with food and or drinks before they are discarded. In situation where it is not possible to use washable crockery, one solution is to serve food and drinks in 'compostable' serveware. This system can be difficult to manage and may require the cooperation of multiple parties:</p> <ul style="list-style-type: none"> To ensure success the same packaging must be used throughout the entire venue otherwise it will be too complicated for users to differentiate between different materials. Bins must be clearly labelled to avoid contamination by other materials. The message should be commensurate with the type of packaging used i.e. use only paper plates and paper cups and wooden cutlery write "food, paper plates, paper cups, wooden cutlery" on the bin. Only a few composting facilities exist in the UK which will accept this type of material – check that they're not screening out the packaging and that they can actually compost the whole product stream. 'Biodegradable' does not mean 'compostable'. Biodegradable plastics can end up contaminating other recycling streams. Be wary of compostable plastics like PLA and corn starch. These materials look like plastic and usually end up critically contaminating the plastic recycling; we recommend not using these products.
Paper and cardboard	Typically from offices, packaging and concessions.	Widely recycled, if kept separate. In offices consider separating high and low grades of paper (ask your contractor) as you may save money. Prevent it from becoming wet as becomes heavy to manage and can be rejected for recycling.
Sewage ('black water')	Human waste or effluent from toilets.	Not using toxic fluids in toilets can help the organic processes predominantly used to manage municipal human waste. For the purposes of this guide, it is assumed a professional sanitation contractor is used to manage effluent and remove from site. Also see the Julie's Bicycle Practical Guide to Water Management at Outdoor Events.

Grey water	Sources usually include shower water and traders' 'slops'.	Usually stored safely in tanks onsite to prevent land and water course contamination, and removed by sanitation contractor.
Oils and fats	Generally produced by catering concessions.	Ideally kept separate from grey water to prevent complications in processing. And can often be collected separately to provide fuel for transport (depending on the type of oil and fat collected).
Batteries, printer cartridges and phones	Usually from offices, stages and lost property.	These items can generally be sent freepost to charities that manage their reuse or disposal responsibly and create a revenue stream by doing so.
Used gas canisters/bottles	From catering concessions, space heating, and shower blocks.	Generally trade gas bottles will be returned to the supplier/wholesaler onsite or taken by the concession if not fully used. Camping gas canisters from campers should be kept separate onsite for safety reasons and then recycled as metals. Consider providing a designated drop off point for the audience to deposit these.

Embedded and Embodied Energy

Embedded and embodied energy is the energy used to make the item in the first place, and the energy inherent in the material itself. Metals, for example have high-embedded energy due to the intense extracting and manufacturing process.

Re-Usable Cups

A reusable cup has less environmental impact if used only two and a half or more times compared to a single use, throwaway PET cup.

These have been used at events in many European countries for over a decade (some local authorities even make their use a condition of license), but have only been used at a handful of UK events to date.

A recent study undertaken by Open Air St. Gallen (Festival, Switzerland) shows their use can significantly reduce environmental impact compared to single use plastic cups.

The study considered five years of data and showed that cups at this event were used on average seven times in their life, and between 80% - 93% were returned annually. 80% of the environmental impacts associated with plastic cups can be attributed to the manufacturing process. Transport distance adds little to the overall footprint of each cup, and reusable cups remains the more sustainable choice even taking into account the energy needed for washing them. It should however be noted that the study did not take into account the carbon footprint associated with the cup's disposal. Events such as Latitude and Shambala have successfully introduced reusable cups for all their bars. In the case of Shambala, the initiative met with a 95% approval rating in an audience survey, saved costs overall, dramatically improved the cleanliness of the site, and prevented over 100,000 cups being used once and discarded.

Waste Treatment Processes



The variety of waste treatment and disposal options available can make it overwhelming to choose.

However you can establish your needs by thinking about which processing facilities your waste contractor has access to, and/or intends to use? What services they provide? Are they within a reasonable distance? And can you discuss options with your contractor?

Some urban events will use existing municipal services, which narrow down your choices, but it's good to discuss this with your contractor to explore available options.

Summary of the most common waste treatment and disposal options available in the UK:

Type of process	The process explained	Issues and impacts (in brief)
Anaerobic Digestion	Organic materials such as food waste, sewage, silage and crops are "digested" in the absence of oxygen to generate biogas (methane), for energy, and digestate (compost-like material), which can potentially be used as fertiliser in agriculture.	Material must usually be very 'clean' (i.e. not contaminated with other types of waste) and hence operators are sometimes reluctant to deal with events. Soon to become a much more common technology due to government subsidies.
Composting	Organic material is broken down by microbes in an oxygenated environment to make compost, which is often used in agriculture. Composting can "bio-stabilise" the organic material effectively enough for it to no longer be considered waste. "In-vessel" systems compost material in containers. In this case meat wastes can be effectively broken down along with vegetable and woody material.	An effective and well-established waste treatment method that is a viable option for event waste. As with anaerobic digestion (but less critically), material should as free from contaminants as possible. Some processes are capable of accepting compostable paper packaging, though in practice this is rare. Check with your waste contractor what type of compostable packaging they will accept. Some recent studies ³ have criticised commercial composting sites for pollution of the surrounding air with bio-aerosols (airborne bugs).
Landfill	Usually an ex-quarry is lined and filled with mixed waste in "cells". A protective cap is placed on top. Organic waste biodegrades without oxygen and the resulting biogas is sometimes collected and burned for energy ⁴ .	Takes up space. Burdens future generations with the longer-term issues resulting from the toxicity of landfill sites. All landfill sites could potentially leak at and pollute the surrounding area in some way. Methane gas (a much more potent greenhouse gas than CO ₂) escapes and contributes to the Greenhouse Effect driving climate change.
Recycling	This term usually describes the act of collecting and sorting materials such as cans, paper, plastic bottles, textiles, cardboard and glass which are sent to "reprocessors" and refined back into raw materials to make new products. There are different types of recycling facilities able to process different types of materials.	Recycling materials ensures that the highest level of embodied and embedded energy is recovered compared to other methods of treatment. Not all recycling processes will yield materials of the same quality as the virgin materials which is why it is important to consider waste reduction and preparation for reuse before recycling. Embedded energy is the energy present in a material and used in the extraction and manufacture of a material.

Type of process	The process explained	Issues and impacts (in brief)
Materials Recovery Facility (MRF)	Various mixed "dry" recyclable materials such as cans, paper, plastic bottles (and glass) are separated mechanically into types before being baled and sold to reprocessors.	<p>A prevalent and effective technology for segregation of clean, dry material. Food contamination causes problems for MRF operators limiting the benefits of this system at events. Including glass in this system can damage the quality of paper products making them unrecyclable, hence the preference for separating glass.</p> <p>If you are using a Mechanical Recovery facility (MRF), establish what comingled waste it will take (i.e. mixed dry recyclables such as cans and plastic bottles). Ask for a list of acceptable materials and work out if the list matches the materials being generated on site.</p> <p>Ask what quality the material should be e.g. "is it alright if in a bag of cans there are 20 plastic bottles?"</p>
Mechanical Biological Treatment (MBT)	Mixed household and commercial wastes are mechanically separated to recover recyclable materials. The biological fractions are then landfilled, used in landscaping or made into Refuse Derived Fuel, which is used to generate energy.	This technology is becoming more common, and is often wrongly marketed as a solution for not separating materials at the point of collection. Many of the products of this type of process are of low quality and should be viewed as a last resort for recovering material after other separation has been attempted.
Waste to Energy Plants (incinerators)	Waste is burned to reduce its volume and hazardousness. Most facilities use the generated heat to make electricity. A small percentage also captures waste thermal energy (i.e. heat) to heat water and space in buildings.	<p>A common and controversial waste treatment technology. All modern incinerators follow strict EU emissions thresholds and are monitored in real time so that air pollution is negligible; however there is a significant disincentive for operators to breach these limits.</p> <p>Between 20% - 30% of the incinerated material will remain as "bottom ash"5 which needs to be disposed of in landfill. Furthermore, residues from the pollution filters are toxic and need to be safely contained in special hazardous waste landfill sites.</p> <p>Another objection to incineration as a treatment option is that, in contrast to recycling, much of the embedded energy is lost, in some cases this also involves the loss of the embodied energy.</p> <p>In the case of plastics, fossil fuels are being burned which increases the greenhouse effect.</p>

Waste Management Plan

Having a Waste Management Plan (WMP) is a vital element in delivering a safe and sustainable approach to waste management. Many events rely on their contractor to provide this, and maintain all of the relevant documentations such as waste transfer notices and relevant safety operations, however it's good to not expect this and draw up your own plan to successfully deliver your sustainable approach to waste. WMP's vary considerably in their scope and detail.



Example outline of an Event Waste Management Plan:

- Event details.
- Overview and purpose – what are you aiming to achieve?
- Roles and responsibilities – who has overall responsibility for delivering the plan and who else has a key role or contractual obligation?
- Key performance indicators – what are your targets and how will you determine success?
- Planning – how will waste be managed at your event? Break this down into areas: campsites, production, markets, bars and crew catering, offices and backstage, arenas, sanitation waste/grey water. Ask your waste contractor to provide these plans for review, based on the targets you have put forward and the event details supplied.
- Assessing waste types and estimated amounts. This could include a form for stakeholders to estimate their quantities and types of waste.
- Communication and information – This is vital. Break this down into the following areas: crew/staff; concessions; audience pre-event and on-site (e.g. signage, info); artists.
- Monitoring and reporting – how will you measure your performance, and what is in place with your contractor in terms of reporting figures?
- Post-event evaluation – a review of the figures and debriefs from stakeholders form a valuable resource for making improvements next year: how will you obtain this information?



What's recyclable?

Recycling icons, such as these, are universally understood to denote the recyclability of materials.

However, these icons are 'theoretical' and do not guarantee that the facilities or technology to recycle it is available. Check with your waste contractor which materials can actually be recycled responsibly.



Top Tips for Reducing Waste

Simple measures and policies can reduce the amount and types of waste you have to deal with in the first place, and help to eliminate materials which either cannot easily be dealt with or tend to contaminate recycling.

- Have a policy of only using compostable serve-ware and packaging.
- Ban single-use sachets for salt, sauces and milk etc.
- Limit give-away merchandise onsite.
- Provide lists of banned materials to everyone involved with production or trading.
- Provide guidance to creative projects about materials to avoid and how to break down projects in a way where materials can be prepared for reuse.
- Ban bottled water onsite, and encourage audiences and crew to use refillable bottles.

Waste Sources and Stakeholder Engagement

There are a lot of stakeholders involved in the process at all stages of your event, planning, delivery and post-event management. Festivals pose a particular challenge with staff engagement as most of the staff will either be short term, a contractor or a trader and not directly connected to your organisation. This is why including a strategic plan to communicate your approach to waste, as part of a WMP, is essential in achieving your aims. You can do this by including clauses in contracts about environmental commitments and ensuring all contractors are aware of and comply with your policies to help with the green running of your event.

Bars

- Define the types of materials being used at the outset, to ensure they can be managed effectively onsite and recycled post-event.
- Particular attention should be taken to ensure that effective separation takes place within bar serving areas. Bar managers should provide adequate facilities for separation and ensure there is enough space for the separated waste.
- Often the workforce is temporary, so separation training is essential.

Production, Artists and Hospitality Catering:

- Depending on the scale of the event, these stakeholders will arrive several days before the event and will need to be provided with adequate containers to separate their waste during build and break down periods.
- Include your site's waste management arrangements in their briefing or briefing pack.
- The catering hub will be a central location for all stakeholders. Use this space to educate everyone on the elements of your waste management plan.

Concessions (food)

- Ensure that effective separation takes place within kitchens.
- Remind this group every day to ensure they both understand and comply with the system.

Concessions (non-food):

This group is broad and, although most non-food concessions produce little waste, there are occasionally one or two that might produce some unexpected material.

- Gather quality information in conjunction with the markets team prior to the event so you know what you're expecting.
- Liaise with this group when the event goes live.

Creative:

This group represents an opportunity for waste prevention and reuse.

- During early planning stages, ensure that everyone understands the event-wise approach to waste.

Medical:

- Ensure, clinical waste is stored, transported and disposed of legally and safely and that facilities for this are present particularly in First Aid areas.

Site services:

This is a diverse group encompassing a range of services. Although each stakeholder will have specific and differing needs the overall waste volume from this group is likely to be low.

Sponsors

This group plays a variety of different roles in the event sector. Sponsors can produce huge volumes of litter through distribution of product samples and branding. They should be liaised with early in the planning stage to establish if they have specific waste management needs.

Technical

These are a very low waste producing group however they have the potential to produce some unusual hazardous materials.

- They may generate a quantity of disposable batteries; make sure you have a collection process for these.

Stakeholder Engagement Ideas:

Who	Aim	How	Suggested Documents and Policies
Key Staff Members	Commitment and effective delivery of Waste Management Plan (WMP).	Consult all staff when developing the WMP and ensure the document is shared and integrated into planning.	Waste Management Plan
Food Concessions	Engagement with recycling systems to maximise composting and recycling and reduce wastage.	Clear pre-event communication. Effective onsite liaison and support Bonds or deposits.	Trader Recycling Briefing Serve-ware policy Banned items checklist.
Bar Concessions	Reduction in non-recyclable materials and number of waste streams.	Define type(s) of bar cups and other consumables being used, and recycling systems in place.	Contract
Audience	Engagement with recycling system onsite.	Pre event communications including website, social media and direct emails. Clear signage onsite.	Printed Festival Information programme.
Creative Project Managers	Eliminate materials that cannot be recycled and maximise the recycling of used materials.	Accept proposals on the basis of adhering to the recycling policy.	Recycling Policy Banned materials list.
Contractors (Various)	Prevention of the use of materials which cannot be recycled or jeopardise the recycling systems in place.	Communication of the recycling policy e.g. list of banned materials, explanation of recycling system in place, and any penalties for non-compliance.	Recycling Policy Banned materials checklist.

The Greener Wristbands Project

Greener Wristbands is the new sustainability initiative from ID&C and More Bins. The project has been designed to reduce the carbon footprint of festivals and other live events by recycling and reusing their discarded or unused fabric wristbands and lanyards. The recycling procedure involves reusing and re-crafting the old security wristbands and lanyards into everyday useful products using hand cranked sewing machines and hand sewing technique. They have made beautiful pieces of craft such as plaited bracelets, coasters, handles for bags and bows to sew. This helps to mitigate landfill and reduce the carbon footprint of festivals. As well as working closely with organisers on their eco-initiatives, the Greener Wristbands project hosted a series of innovative recycling workshops at festivals across the UK, engaging with audiences and promoting the issues of sustainability in exciting ways. They are currently working on introducing these workshops to schools and to businesses as team building exercises to teach about waste and upcycling.

<http://www.idcband.co.uk/greener-wristbands/>

Wood Festival: Sustainable Artistic Direction

Wood Festival is the famed Truck Festival's "folkier, younger, cleaner, greener and mysteriously beardier brother". A small festival set in the beautiful grounds of Braziers Park, Oxfordshire, Wood is a beacon of environmental sustainability run almost entirely on renewable power, aiming to highlight green issues and promote ecologically friendly living, with composting toilets, showers heated by wood burning stove and a solar powered stage as well as participatory activities that encourage consideration of environmental concerns. The team invested considerable cost and labour in building a permanent green oak stage at Brazier's Park. The oak was from Mackroy Timber Yard, Nettlebed, and was built by friends who specialize in oak frame construction, using no nails or screws. The stage should last for at least 10 years, and represents not just a long term vision for the festival but also a commitment to working with the community that own the site - it is used in a variety of ways by other events held there throughout the year. In 2009 a living roof made of Sedum was added to the stage. In 2010 some of the herbs and flowers planted on the roof were visible for the audience to see.

<http://woodfestival.tumblr.com/>

Latitude and Festival Republic:

Latitude is produced by Festival Republic. Festival Republic's sustainability policy is updated annually and overseen by a Sustainability Coordinator working across the festivals. Staff are provided with targets and strategies both operationally and for communicating to audiences, staff, volunteers and suppliers. Minimising volume of waste to landfill is a priority. This is achieved through various initiatives including: Audience recycling and composting on-the-go; Recycling incentives including deposits/refunds on beer cups and plastic bottles; Aluminium can campaigns; Provision of camper's waste kits; Bag of rubbish return incentives to litter exchanges and recycling and Green Messenger Stewards. Separate waste bins were available for compostable, recyclables and landfill and green messengers were on hand to make sure people threw their rubbish in the right bin. Results from their 2010 report showed just a 0.33% increase in emissions from 2009 to 2010, indicating a stabilisation in the festival's overall emissions, a small increase of 2% in emissions from energy use, and a 30% recycling rate of total waste (47 tonnes).

www.latitudefestival.com

Love Your Tent:



Love Your Tent has been working with festivals since 2011 to raise awareness of the devastating amount of waste left in the campsites after each event, the majority of which ends up in landfill. The recent Love Your Tent survey, compiled in association with Bucks New University, revealed that campsites contributed to a whopping 86% of total festival waste, of which 71% caused lasting damage to local plantlife.

The Love Your Tent mission is simple, to create clean campsites for everyone where campers are respectful of each other, as well as the space they call home for the weekend. Meaning in short that while onsite campers keep their pitch clean and when they leave they take everything home with them.

"It sounds simple doesn't it? But we know this unsociable behaviour isn't going to change overnight after such a long time going unchallenged, so the Love Your Tent team are in it for the long haul. Together with festivals, retailers and audiences worldwide we're promoting our core message Love Your Tent #JustTakeItHome and pleading with festival goers social consciousness to start doing the right thing," says Juliet Ross-Kelly, Joint Founder of Love Your Tent.

Love Your Tent also offer their own campsites, Respect and Love Your Tent, which are gaining in popularity with campers who are fed up with the mess and anti-social behaviour encountered in general camping. These campsites, which are bound by the campaign group's 'Tent Commandments' have been trialled at the Isle of Wight Festival over the last few years and are being rolled out to the other festivals thanks to increasing popular demand, over the next few seasons.

www.loveyourtent.com

During the Event / On-Site Actions



Segregating Waste Onsite



Segregation is the most effective way for events to ensure the best end-use for materials, and is the most cost-effective option.

Contamination in waste streams often lead to materials which could be recycled going to landfill, as waste facilities either do not have the technology, or it is not economically viable, to separate materials at the facility.

Keeping your separate waste streams "clean" of uncontaminated waste when you send it offsite, does ensure that your waste will be recycled.

Events often quote recycling figures based on the general (e.g. annual) performance of their waste facility

which often doesn't represent the recycling rates related to their specific event waste. Waste streams contaminated with more than 5% of other materials will be diverted to landfill.

Debates over the merits of two-bin versus multi-bin recycling in the events industry still continue. The former can be less costly to deliver onsite, but it's likely your event will not achieve good recycling rates due to the mix of materials being taken offsite together, and it increases the cross contamination of the two streams.

Successful source segregation onsite requires:

- Effective multi-bin clusters front of house.
- Effective back of house arrangements for traders and bars to separate waste streams.
- Litter pick teams segregating during clearance of campsite and arenas.
- Provision of clearly labelled skips and bins for production waste.

Can we ask our contractor to re-sort waste onsite from black bags to maximise the recycling leaving site?

It is illegal to re-open and manually process mixed waste in bags onsite, unless the contractor holds an Environmental Permit (Environmental Protection Act 1990) specifically for the purpose. These can be difficult and costly to acquire, and only permit the sorting of up to 10 tonnes of a restricted range of materials onsite for a 10 day period. Thus they are not generally considered a viable option for temporary events. This highlights the importance of getting the recycling systems right at the outset, to maximise the recycling obtained by source segregating. It's worth noting that litter pickers are still able to pick materials into different bags under current legislation, another form of source segregation available to events.

Hay Festival: Food Composting

For seven years, Hay Festival has been engaged in a programme of managing and mitigating its environmental impact through the Greenprint programme. They focused on three key areas; their own direct impacts, impacts of their audience and the programming of events that will stimulate debate and discussion about key issues. In 2011 they introduced food composting for all their catering outlets. This enabled them to save two and a half tonnes of waste from landfill, recycling 75% of the waste produced on site including 1.687 tonnes of paper and 1.59 tonnes of plastic and can. Based on their 2011 experiences, in 2012 they increased the amount sent for composting to 4.8 tonnes.

www.hayfestival.com

Bins and signage



Visibility is essential in successful source segregation. It takes two seconds for an event goer to make their decision about which container to throw their object in.

Make it easy:

- Place bins in easily visible and accessible locations.
- Bins and signage should be identical throughout the site.
- Bin signage should be bold and easily visible.
- Provide lighting around the bins at night.
- Use clear and bold wording.
- Use consistent colour coding for material types, ideally following the national WRAP guidelines.
- Supplement signage with symbols or illustrations.
- Avoid negative instructions, which can confuse (e.g. "no glass").
- Avoid long lists of dos and don'ts.
- Do not overshadow with advertising or branding.

T in The Park, Citizen T:

T in the Park is Scotland's largest music festival and one of the world's most critically acclaimed music events on the international festival scene. T in the Park was one of the first festivals to undertake a carbon audit with Julie's Bicycle in 2008, and the company behind the festival, DF Concerts, has played a key role in kick-starting the cultural response to the Scottish Parliament's commitment to the most ambitious carbon emissions targets in the world: a 42% cut by 2020. Public engagement with environmental initiatives has been driven through social networking platforms and the online 'Green T' information. Environmental issues are communicated via bulletins, and the Essentials Guide and info leaflet provided with ticket sales. The 2010 event implemented a highly visible initiative called The Citizen T initiative which aimed to increase audience awareness of environmental issues and gain festival goers support by asking campers to sign a manifesto pledging to look after their camping area, respect others, pick up litter and take their tent home.

www.tinthepark.com/camping/citizen-t

Waste Reduction Action Programme (WRAP) is a government funded agency that provides extensive resources for a wide range of sectors. One of its aims is to standardise the colour coding used for recycling materials/bins across the UK. Its guide, Recycle On The Go is designed to help organisations choose bins types, placement and signage. See the Further Reading and Resources section.

Audience Engagement



There are two key parts in engaging your audience, providing a motivating context to recycle and making it easy to recycle.

- Run a campaign pre-event to engage people in your recycling, for example: a social media pledging campaign or 'cleaner site' photo challenges.
- Make it fun and engaging, for example: run awareness workshops and have recycling champions interacting with the audience.
- Make it easy: Have recycling stewards distribute recycling bags and black bin bags directly throughout the campsite to encourage your audience to recycle.
- Make recycling prizes; such as offering a small cash prize for the most bar cups returned.

Recent research by Bucks New University suggests that festivalgoers see waste as the biggest environmental impact of events. If you raise awareness about your recycling aims and efforts onsite, and keep on top of your litter, you can help influence your audience behaviour. Research points towards a responsive audience tipping point, if you provide a clean site, your audience will act more responsibly to keep it that way.

Deposit initiatives

Many events operate a waste or recycling deposit initiative in some form to encourage audiences to return their waste or materials. Cup deposits on reusable bar cups at events in Europe have ensured a high percentage of reusable cups are returned and reused.

Events such as Boomtown and Shambala have introduced a recycling deposit or eco-bond at the time of ticket purchase, which is reclaimed when a bag of recycling is returned to a central point (this is particularly useful for managing waste in campsites). Other events such as WOMAD and Reading have incentivised the audience to return cans or plastic bottles by offering either a small payment or a privilege e.g. free beer.

Shambala: Bring a Bottle:



Shambala is now firmly established as a focus for innovation in sustainable technologies and the more elusive "science" of drawing people into a deeper dialogue about the environmental sustainability issues confronting us all today. They have developed a robust waste reduction and management approach, and increased recycling rates by 10% between 2012 and 2013. This has been greatly supported by a high level of both trader and audience engagement, including campaigns such as Bring a Bottle - their most successful audience engagement ever, with the sale of water in plastic bottles banned onsite completely - and Surplus Supper Club.

www.shambalafestival.org

Managing Traders



Traders create a significant amount of waste of different types at events. Improving their waste behaviour can be a challenge as they work across a variety of events that use different waste systems. This is why advance communication and clarity are an important part of effective back of house recycling initiatives.

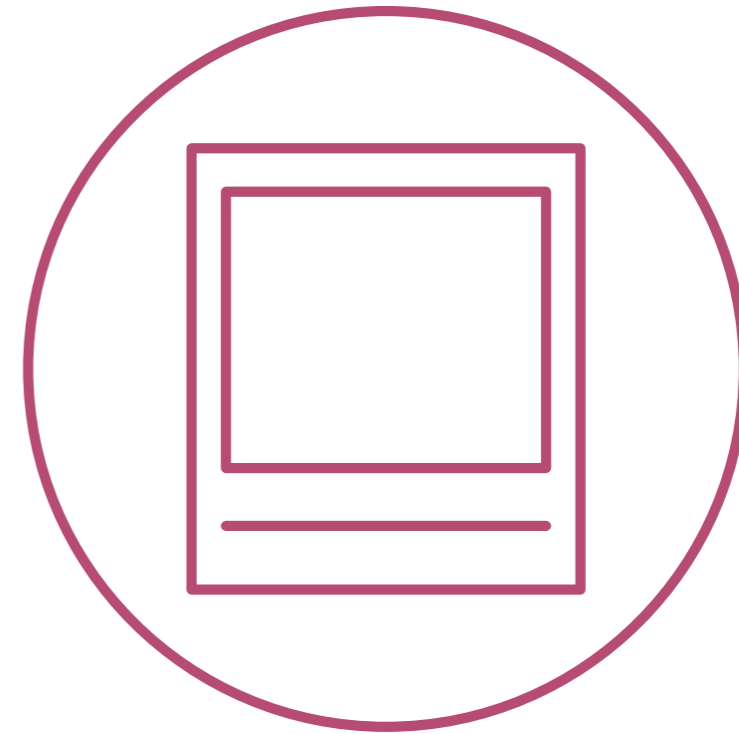
- Include recycling obligations in contractual arrangements in advance of the event.
- Include a list of banned items and materials, such as single-serve sachets of salt/pepper/sugar.
- Include a list of approved packaging types.
- Provide a clear recycling system using laminated posters at each concession.
- Make the waste bins visible and clearly label them.
- Ban the use of black bags as they encourage people to 'hide' waste. Use clear bags for landfill waste.
- Nominate a Trader Liaison from your Waste Management Team to encourage recycling practice.
- Implement financial penalties to ensure the pitch is left in a clean state after departure. Use a clear colouring system e.g. initial warning, yellow card, and red card for the non-return of deposit.
- Offer a surplus food collection at the end of the event, to avoid food waste.
- Encourage traders with incentives, such as a green award initiative. Offer winners signs for stalls, website and programme spaces to boost profile.

FareShare

FareShare is a South West- based charity that works to minimise fit-for-purpose food going to waste, and delivers it to organisations working with people in the UK experiencing food poverty. In 2013, FareShare collected, processed and redistributed two tonnes of food from three festivals.

www.fareshare.org.uk

After Your Event



After Your Event

It's important to be able to document what happens to your waste post-event to compare performance against your aims, evaluate the contractor and make future improvements.

The Clean-up



The 'get out' time for most events is often short, and can be quite a stressful time for stakeholders. This often results in abandoned recycling systems and waste left in piles of black bags. There is a culture of assuming that 'someone else will deal with it' which compromises waste systems and recycling targets.

There are many ways to deal with this:

- Ensure the waste contractor maintains adequate recycling bins for the break period.
- Communicate what you expect from stakeholders onsite before their departure throughout your planning stages.
- Introduce litter and/or recycling bonds for traders.
- Ensure creative projects leave materials broken down separated and stacked safely.
- Brief any litter pickers to continue to separate waste properly.

UpCycle: The ExChange



"UpCycle provides the Eco-Rangers and the ExChange to environmentally conscious UK festivals. The Eco-Rangers are a team of volunteers who work to creatively engaging the public in the complex issues surrounding waste and recycling. They setup and manage the waste collection system throughout the festival, build bins, position them and ensure they are empty and washed after the festival. The ExChange is our 'upcycling' station. There we reclaim and creatively reuse whatever waste materials we can especially those that do not recycle well. We aim to create something beautiful, or functional. The purpose and value of these objects is not their 'use' but their ability to inspire us all to be more conscious of the waste that our lifestyles produce."

Chris Hardy, Upcycle
www.up-cycle.org.uk

What to Expect from Your Waste Contractor(s)



Demand the following as part of the contract with your waste management company:

- Detailed report/evaluation of systems onsite including recommendations for improvements.
- Full and complete collection of waste disposal/weight bridge certificates (note that it is a legal requirement for your contractor to gain and retain these for all waste disposed of).
- A summary breakdown of all waste types and percentages of recycling for your event.

Keep your communications channels clear to protect any details that may be overlooked.

Continuity



Targets and aims were discussed earlier in the guide in the context of a Waste Management Plan. Many events choose to set out a three-year plan with annual targets and overarching targets.

Often you will have a de-briefing and/or annual review of your event or events programme. This is a good opportunity to learn lessons and tweak systems to achieve your ultimate goal.

Within this you can prepare a waste performance report, which you can then share with stakeholders, and implement an action plan for early planning stages for the following event. This helps maintain momentum and motivates people to improve their performance.

Tools such as the Julie's Bicycle Creative IG Tools can help to capture the carbon impacts associated with waste on an annual basis.

Regulations and Legislation



Here are some useful references on the UK applicable regulations and legislation that any environmental sustainability measures your organisation undertakes should comply with. Please note that this is not an exhaustive list and should not be considered as legal advice!

Landfill tax per tonne for 'active' waste (which almost all event waste will fall into) has been increasing by £8 per tonne annually since 2010/11 to drive an increase in recycling rates and help the UK meet its goals under the Landfill Directive. It currently stands at £80 per tonne for 2014/15. The landfill tax for 'inert' waste, such as building fabric and excavated earth, is £2.50 per tonne.

Waste transfer and duty of care. All events have a legal obligation, a duty of care, to be able to demonstrate that they know exactly how waste is being managed. Waste must be stored, carried and disposed of in accordance with the Environmental Protection Act Section 34. When removing waste from site, a Waste Transfer Note (WTN) or Consignment Note (CN) for hazardous waste, must be completed prior to or at the point of removal. WTNs must be used for all shipments of inert and non-hazardous wastes.

Defra provides the following guidance:

[Duty of Care Waste Transfer Notes](#)
[Non Hazardous Waste Consignment Notes](#)

Further Reading & Resources



[Julie's Bicycle Creative IG Tools](#)

[Julie's Bicycle Benchmarks](#)

[Julie's Bicycle Practical Guides](#)

The following guides would be useful to read alongside this

- [Water Management at Outdoor Events](#)
- [Team Engagement](#)
- [Procurement](#)
- [Communications and Marketing](#)
- [Production](#)

[WRAP: advice for event management sector](#); including an online waste management tool and guide to recycling

Raw Foundation/Kambe Events: Making Waves: Global lessons to inspire local actions: [plastic-free festival guide](#).

[Sustain: Good Food for Festivals Guide](#)

[London 2012 Zero Waste Events Protocols](#)

[Love Your Tent Campaign](#)

[The Purple Guide to Health, Safety and Welfare at Outdoor Events](#) (2014) (££ subscription of £25 for 12 months' access to the Purple Guide website)

Sustainable Event Management: A Practical Guide, Meegan Jones (Book, ££, Routledge, 2009)

Acknowledgements



We would like to thank Chris Johnson and Ed Cook for their contributions to this guide.

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Ed Cook is a Julie's Bicycle Associate and independent waste management consultant with over 12 years' experience in solid waste management and operations. He has managed the waste at more than 350 UK outdoor events over his career; pioneering innovative sustainable waste management solutions all across the UK. He worked on the waste management strategy for the London 2012 Olympics and now provides technical advice across the waste and events industries. Ed has a Master's Degree in Waste and Resource Management from Cranfield University and is a Chartered Waste Manager.

Julie's Bicycle

SUSTAINING CREATIVITY

Julie's Bicycle

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