



Hawkesbury City Council SUSTAINABLE EVENTS MANAGEMENT GUIDE



This Sustainable Events Management Action Plan and Guidance is designed to assist events produced in the Hawkesbury City Council LGA to be as sustainable as possible. It is the 'how-to' implementation guide for Hawkesbury City Council's Sustainable Event Management Policy.

CONTENTS		
<u>Identify Issues</u>	3	
<u>Communications & Stakeholders</u>	2	<u>Guidance</u> 6
<u>Power</u>	2	<u>Guidance</u> 7
<u>Transport</u>	2	<u>Guidance</u> 11
<u>Waste</u>	3	<u>Guidance</u> 13
<u>Water</u>	3	<u>Guidance</u> 15
<u>Procurement</u>	4	<u>Guidance</u> 19

How to use this Action Plan – Its Easy!

- Step 1 – Identify Issues -** Read each segment in the following pages in order to identify issues which are unique to your event/s.
- Step 2 – Read the Guidance –** If you are unsure of the background information in order to make an informed decision on an issue and how to manage it, read the guidance on the relevant point.
- Step 3 – Develop an Action Plan -** Once you have identified what the issues are and understand how to manage the issue, develop a plan of action for each issue.
- Step 4 – Set Goals -** Identify measurable and reportable goals for each area you are addressing.
- Step 5 – Reporting -** Monitor, measure and report your performance

STEPS TO IDENTIFYING ISSUES

<input type="checkbox"/>	Identify the issue
<input type="checkbox"/>	Determine if impacts are negative or positive, and if positive, what opportunities for exist legacy leaving.
<input type="checkbox"/>	Determine significance of the issue (size, relative size and frequency of occurrence)
<input type="checkbox"/>	Determine relevance of the issue (including stakeholders' perception of importance)

STAKEHOLDERS, ENGAGEMENT & COMMUNICATIONS

[Guidance 6](#)

<input type="checkbox"/>	Identify stakeholders that can contribute to the successful implementation of sustainability initiatives.
<input type="checkbox"/>	Identify ways to engage and communicate with stakeholder/s around each issue or initiative.
<input type="checkbox"/>	Ensure all sustainability initiatives that are publicized are effectively implemented.
<input type="checkbox"/>	Include green messaging on all promotional materials, including publicity campaigns.
<input type="checkbox"/>	Attract sponsors to your event that can add value and support to your sustainability projects.
<input type="checkbox"/>	Include your expectations to meet sustainability goals into supplier and contractor agreements.
<input type="checkbox"/>	Design creative ways for attendees to be involved in sustainable practices at the event.
<input type="checkbox"/>	Choose an environmental and/or social campaign to support through your event.

ACTION PLAN - POWER

[Guidance 7](#)

<input type="checkbox"/>	Determine what mains power will be used and what percentage GreenPower the mains power is on.
<input type="checkbox"/>	Determine what mobile power will be required, if generators can be run on biofuel, and what % blend used.
<input type="checkbox"/>	Determine if zero emissions energy supply options are available and practical for use.
<input type="checkbox"/>	Estimate likely GHG emissions in a 'business-as-usual' scenario.
<input type="checkbox"/>	Determine what equipment will be plugged in by power users to identify energy conservation opportunities.
<input type="checkbox"/>	Commit to purchase of 100% GreenPower for mains and mobile power not already from renewable sources.
<input type="checkbox"/>	Consider opportunities to promote sustainable energy supply to the event audience/attendees.
<input type="checkbox"/>	Choose indoor venues which are sustainably built and operated and have energy efficiency practices in place.

POWER USE & CONSERVATION

<input type="checkbox"/>	Switch off lighting, equipment and PAs when not in use.
<input type="checkbox"/>	Use energy efficient equipment and ensure any savings translate to reductions in generator size.
<input type="checkbox"/>	Brief all crew and power users on the event's energy goals and how they can participate.
<input type="checkbox"/>	Set formal maximum power supply available to each user in pre-event contract documentation.

MOBILE POWER CONTRACTORS

<input type="checkbox"/>	Mobile power contractors to have their own company sustainability policy and view a copy of this policy.
<input type="checkbox"/>	Provide mobile power contractor with accurate estimates of load requirements.
<input type="checkbox"/>	Include clauses in contract agreements to ensure sustainability initiatives are met.

REPORTING

<input type="checkbox"/>	Report on energy used and GHG emissions produced.
<input type="checkbox"/>	Purchase required GreenPower credits to mitigate greenhouse gas emissions from non-renewable energy use.
<input type="checkbox"/>	Analyse performance, set goals and actions for continual improvement, report and disclose performance.

ACTION PLAN - TRANSPORT

[Guidance 11](#)

<input type="checkbox"/>	Determine most practical modes of transport for accessing the venue site.
<input type="checkbox"/>	Consider whether additional shuttles could be provided to transport audience members from train station.
<input type="checkbox"/>	Create incentives to arrive by public transport and communicate options to attendees in advance.
<input type="checkbox"/>	Create a Cycle to the event campaign, with bike parking and cycling incentives.
<input type="checkbox"/>	Match bike parking with a cycling interest group to service bike parking area (set up and looking after it)
<input type="checkbox"/>	Consider incentives to reward those who arrive with full cars (increasing occupancy decreases GHG emissions).
<input type="checkbox"/>	Procure locally and use local contractors by preference to reduce transport impacts.

REPORTING

<input type="checkbox"/>	Measure attendee travel impacts.
<input type="checkbox"/>	Analyse uptake of public transport and cycling.
<input type="checkbox"/>	Use conversion factors to calculate for GHG emissions for transport.
<input type="checkbox"/>	Disclose performance results to stakeholders/interested parties.

ACTION PLAN - WASTE		Guidance 13
<input type="checkbox"/>	View waste as a valuable resource and at-event waste logistics is undertaken as a resource recovery exercise.	
<input type="checkbox"/>	Determine the type of waste that will/may be produced through all event activities.	
<input type="checkbox"/>	Estimate the percentage of waste that will be produced for each type of waste stream.	
<input type="checkbox"/>	Determine if collected waste will be separated at source (the event) or at waste handling facility (MRF).	
<input type="checkbox"/>	Determine what types of waste can be managed by the waste handling facility.	
<input type="checkbox"/>	Establish a clear list of items that will be included in the each waste bin stream and communicate this to all.	
<input type="checkbox"/>	Ascertain how organic matter can be processed – composted? – and how it will be effectively segregated.	
<input type="checkbox"/>	Work with waste service to plan the most effective onsite waste procedures to achieve waste goals.	
<input type="checkbox"/>	Ensure all working at the event are aware of their responsibility regarding creation and separation of waste.	
WASTE PREVENTION		
<input type="checkbox"/>	Determine how to minimise event production waste – e.g. storage re-use, borrow, rental.	
<input type="checkbox"/>	Consider going bottled-water free and providing water refill points.	
<input type="checkbox"/>	Create an on-site salvage point for all items that can be re-used or gifted.	
<input type="checkbox"/>	Establish a pickup system with Oz Harvest for uneaten food and communicate with food traders.	
<input type="checkbox"/>	No waste-producing throwaway items to be sold or given away by sponsors or stallholders.	
<input type="checkbox"/>	Ensure food traders use bulk dispensers rather than single serve sachets or packets.	
<input type="checkbox"/>	Food traders, bars and sponsors are required to use prescribed food and beverage packaging.	
<input type="checkbox"/>	Communicate waste system to stallholders before the day, and again at the event.	
BIN SIGNAGE AND SEGREGATION		
<input type="checkbox"/>	Instigate a triple-waste stream front of house to capture compostable, recyclable and general waste if possible	
<input type="checkbox"/>	Utilise ‘bin-toppers’ or other signage that clearly identifies the different waste streams for each bin.	
<input type="checkbox"/>	Ensure all bin stations always include all segregation options.	
<input type="checkbox"/>	Ensure all bin signage explains what can be put in each bin rather than just ‘recycle’ include images/graphics.	
<input type="checkbox"/>	Consider creative ideas for on-site attendee participation in waste recovery and segregation.	
<input type="checkbox"/>	Consider volunteers to assist with waste collection, separation and education on site.	
<input type="checkbox"/>	Determine the process for collection of cooking fats, oils and wastewater.	
<input type="checkbox"/>	Provide butt bins and ashtrays, or instigate no smoking where food is consumed (segregate a smoking area).	
<input type="checkbox"/>	At-stall signage: create a 3D sign with the biodegradable food service products that can be composted.	
REPORTING		
<input type="checkbox"/>	Measure and report waste created for each waste stream.	
<input type="checkbox"/>	Onsite auditing of compliance is undertaken to check waste handling and that segregation is effective.	
ACTION PLAN - WATER		Guidance 15
<input type="checkbox"/>	Estimate water requirements.	
<input type="checkbox"/>	Determine how water is supplied to the event site.	
<input type="checkbox"/>	Invite Council to promote their water sustainability programs.	
TOILETS/AMENITIES		
<input type="checkbox"/>	Ensure toilets used are a maximum of 500ml of water per flush.	
<input type="checkbox"/>	Use chemical-free toilet additives.	
<input type="checkbox"/>	Use waterless men’s urinals.	
<input type="checkbox"/>	Use hand wash taps fitted with ‘spring load return’ or aerators for efficiency.	
<input type="checkbox"/>	Use environmentally sound cleaning products to prevent chemical contamination of wastewater.	
<input type="checkbox"/>	Use hand sanitiser (alcohol free) to reduce water used in amenities.	
<input type="checkbox"/>	Use environmentally sound cleaning products to avoid chemical contamination of wastewater.	
<input type="checkbox"/>	Use toilet paper which is made 100% recycled paper content.	
WATERWAYS PROTECTION		
<input type="checkbox"/>	Investigate local waterways that may experience disturbance due to event.	
<input type="checkbox"/>	Consider regulations protecting these waterways.	
<input type="checkbox"/>	Consider legacy opportunities for regeneration, enhancement or protection of waterways.	
MEASURE PERFORMANCE		
<input type="checkbox"/>	Report total water consumed at the event.	
<input type="checkbox"/>	Calculate total wastewater produced.	
<input type="checkbox"/>	Determine total water used per person per day at event.	
<input type="checkbox"/>	Analyse performance, set goals and actions for continual improvement, report & disclose performance.	

ACTION PLAN - PROCUREMENT

Guidance 18

<input type="checkbox"/>	Develop a comprehensive list of products, materials, equipment and supplies required.
<input type="checkbox"/>	Understand the sustainability issues and existing eco-labels for each area of procurement listed above.
<input type="checkbox"/>	Identify policy items you will enforce on sustainable procurement, in relation to ethical, environmental, seasonal, sustainably harvested, toxicity, local, social enterprise, and waste reduction specifications.
<input type="checkbox"/>	Identify items that can be borrowed, rented and re-used; utilise these as a priority before purchasing items.
<input type="checkbox"/>	Encourage all traders to procure as sustainably as possible and communicate why this is important.
PRINTING & PAPER	
<input type="checkbox"/>	Use printing companies that have sustainable production practices in place, and/or are certified.
<input type="checkbox"/>	Choose inks and printing processes that have the least environmental impact. (veg & low voc inks/varnishes)
<input type="checkbox"/>	Use 100% post consumer recycled paper (preferable), tree-free or FSC certified paper stock.
SIGNAGE	
<input type="checkbox"/>	Use sign writing companies that have sustainable production practices in place, and/or are certified.
<input type="checkbox"/>	Create signage with wording that can be used across multiple events/years.
<input type="checkbox"/>	Use 'Encore' instead of 'Corflute'. Encore is manufactured from post-use Corflute rather than virgin materials.
<input type="checkbox"/>	Send signs for reuse/repurposing by organisations such as Reverse Garbage.
TIMBER	
<input type="checkbox"/>	Use plywood in preference to MDF. Use FSC formaldehyde free MDF if used.
<input type="checkbox"/>	Use only timber which has been sustainably forested and has a sustainable forestry certification.
PAINT	
<input type="checkbox"/>	When purchasing paint, buy Australian made, zero VOC, non-toxic, water-based, eco-labelled paint.
CLEANING PRODUCTS	
<input type="checkbox"/>	Purchase cleaning products that are environmentally sound:
<input type="checkbox"/>	Use toilet paper and paper towels/hand towels made from recycled paper.
DRINKING WATER	
<input type="checkbox"/>	Consider going bottled-water free and providing water refill points instead.
<input type="checkbox"/>	Ensure suitable numbers of free water refill stations, which help to reduce bottled water waste.
<input type="checkbox"/>	Encourage the audience to bring re-usable bottles.
<input type="checkbox"/>	Provide re-usable bottles to crew and artists.
<input type="checkbox"/>	Provide/sell water bottle holders/carriers and/or reusable water bottles (sponsor opportunity).
FOOD & BEVERAGE	
<input type="checkbox"/>	Require caterers and food traders to source sustainable food and beverage products.
<input type="checkbox"/>	Consider going Coca Cola or Pepsi free. Support local and/or fresh beverages.
<input type="checkbox"/>	Require food traders and bars to use prescribed food and beverage packaging.
<input type="checkbox"/>	Ban use of polystyrene containers. This includes polystyrene (no '6' PS) coffee cup lids.
MERCHANDISE	
<input type="checkbox"/>	Prioritise the purchase of products that are manufactured locally.
<input type="checkbox"/>	Consider the manufacturing process, trade & labour issues, toxicity issues and transport impacts.
ACCESSIBILITY, COMMUNITY, HABITAT, SAFETY	
<input type="checkbox"/>	Accessibility for those attendees with mobility and sensory impairment issues are identified and managed.
<input type="checkbox"/>	Dietary, cultural, religious and health related issues are considered when planning food traders at event.
<input type="checkbox"/>	Channels are available for event attendees and general community to communicate with organisers.
<input type="checkbox"/>	The event ensures respect for, and acknowledgment of traditional owners.
<input type="checkbox"/>	Areas of ecological sensitivity on or near the event location/site are identified and managed if needed.
<input type="checkbox"/>	Areas of heritage conservation on or near the event location/site are identified and managed if needed.
<input type="checkbox"/>	Sound and lighting issues which may disrupt local amenity are identified and managed.
<input type="checkbox"/>	Traffic and congestion issues which may disrupt local amenity are identified and managed.
<input type="checkbox"/>	A Risk Assessment is undertaken to identify risks throughout the entire event life cycle.
<input type="checkbox"/>	Food handling activities meet regulatory requirements



GUIDANCE



GUIDANCE: Stakeholders

The production of most events relies on the coming together of many stakeholders external to the core event production organisation. Having these many stakeholder groups engaged in the process of producing the event sustainably will be pivotal to the success of your plans.

The purposefully planning of recruitment of the stakeholders into your events sustainability plans, will enhance the success of producing the event sustainably. The communication and engagement process will also have the twin benefit of educating your event's stakeholders with the deeper issues around sustainability and hopefully ignite their active participation in developing solutions alongside you.

Stakeholders may include individuals and groups both inside and outside the organisation that have some direct interest in the event's planning, production and implementation, or in participating in it.

To identify stakeholders, ask the following questions;

- **Do they make purchase decisions?**
- **Do they make operational decisions either pre/post event or on show days?**
- **Do they interact with the audience and therefore have the potential to influence their behaviour?**

Different groups of stakeholders include:

- **Event Organiser** – event owner, event management company, partners, sponsors, funders and investors.
- **Employees and Workforce** – including volunteers, contracted crew, and staff supplied by contractors or labour hire firms. All levels of the organisation.
- **Supply Chain** – venue, product and service suppliers. It could also include emergency services, fire, ambulance, safety, and security. This could also include sponsors.
- **Participants** – speakers, performers, athletes, exhibitors, contestants, traders.
- **Attendees** – customers, audience, fans, spectators, visitors, delegates.
- **Regulatory Bodies** – local authority/municipality, licensing authorities, police, state/federal government and their departments, agencies and bureau.
- **Community** – local community and neighbourhood including indigenous people, NGOs, media, protestors. It could include sector interest organizations (industry bodies) and networks; consumer and/or environmental groups.

Internal Stakeholders

- Event Director
- Event Manager
- Programming Manager
- Production Manager
- Site Manager

- Event Assistant
- Infrastructure Manager
- Marshalls & Stewards

- Licensing Manager
- Website
- Safety, Medical, Welfare, Security
- Traffic Management
- Artist liaison
- Backstage manager
- Guest & VIP manager
- Stage Managers
- Sound & lighting production
- Site crew
- Signage
- Race Officials
- Marketing, Advertising, Publicity
- Sponsorship
- Community Liaison

External Stakeholders

- Sponsors
- Market Stalls
- Program & Promotional Printing
- Contractors and Suppliers
- Regulating Authorities

- Audience
- Local Community
- Volunteers & Stewards
- Clients
- Participants/Artists/Speakers/Performers
- Venue Owner
- Industry Sector Organisations
- Relevant Community Organisations
- Interest Groups and Associations



GUIDANCE: Power

Planning

The potential impacts of power use at events in the HCC LGA include the consumption of fossil fuels in energy production, greenhouse gases emitted, and localised pollution. Power is required for lighting, equipment, offices, dressing rooms, stallholders, caterers, bars, and general site lighting.

Power for outdoor events is supplied in most cases through mobile power generators. Some parks in HCC LGA have access to mains power, however this is limited. Indoor events will use building-based power, primarily through mains supply.

The total energy consumed has a direct and measurable impact on the total greenhouse gases (GHG) produced by an event. Reductions in the impact of power use at events through:

- Using energy efficient equipment.
- Reducing demand for power.
- Using renewable or zero emissions energy supply.
- Neutralizing unavoidable emissions through purchasing Green Power credits for mains and mobile.

Consider the following when planning energy logistics at HCC LGA events:

- Is power sourced from non-renewable fossil fuels, resulting in greenhouse gas emissions?
- If mains power is supplied to the site, is it signed up to Green Power?
- Is renewable or zero emissions energy possible for mobile power generation?
- What initiatives are in place to conserve energy?
- Is equipment, lighting, plant and machinery energy efficient?
- Have the power requirements of the event been accurately estimated? Cumulative overestimations will result in a larger generator supplied than necessary.
- Can peak power demands be harmonized to optimize the most efficient power demand?

Set Energy Goals

The overarching energy goals for an event should be to:

- **Reduce total energy used through demand management and energy efficiency.**
- **Maximise use of renewable energy.**
- **Reduce greenhouse gas emissions as a result of energy use and source of energy supply.**

Follow these steps to establishing detailed energy goals

- **Establish a baseline**
Understanding energy demands at previous events is important to establish reduction goals. Alternatively estimate the amount of energy demand there could be used if no interventions were put in place.
- **Estimate business as usual energy consumption**
- **Identify where saving can be made**
Investigate the likely power habit, usage peaks and troughs. Trouble shoot potential high energy users or usage scenarios which need to be managed to achieve reductions.
- **Establish and Communicate your energy goals**
Work with energy users to engage them in reducing energy demand. Establish 'energy diets' to give maximum provision to power users. Communicate goals and actions.
- **Monitor compliance**
This is key to keeping your goals on track. Have someone constantly reviewing what people are plugging in and reminding users of the power diet.



GUIDANCE: Power

Communicate Energy Goals

Successful implementation of energy conservation programs means ensuring energy users and energy providers are involved. For example switching off lighting and PAs when staging is not in use is dependent on the commitment of crew. Once you work out what you will do to conserve energy consumption, ensure you have engaged those individual staff members, crew and contractors whose involvement is needed to ensure success.

Contract-in Performance Requirements

Providers of energy (venues, power contractors) or users of energy (staff, crew, contractors, stallholders, exhibitors, other third parties) will be engaged with energy goals for the event through your communication efforts above. The next step should then be taken with contracted agreements to include expected behavior.

Generator Suppliers: Requirements may be placed on mobile generator suppliers such as: Reporting of total fuel used (including proof to ensure 'guestimates' are not used), total kVA capacity to allow ongoing efficiency analysis, load capacity monitoring for ongoing planning and analysis, provision of certain equipment and fuel, turn on and off routines, etc. If these requirements are discussed with the power contractor, it is prudent to include clauses in the hire agreement to ensure that the equipment and service requested is supplied and that reporting is done in a timely fashion. It must be noted that when using mobile generators (fuelled) it is possible that switching off equipment may cause the generator to fall under the optimal usage range and then burn off fuel (causing visible exhaust 'fumes'). Talk with your electrical contractor to devise the best ways to reduce energy consumption.

Venues: It is unlikely that you will have control of major aspects of a venue's lighting and air conditioning, however you will have control over what is turned on and off in the room that you hire. Ask the venue to not turn the lights on until you arrive, to ensure no technical equipment is left on and 'humming' before you arrive, and that AC is only used if required. Prefer daylight over electric lights. You may also need to articulate in your venue hire agreement what power monitoring can and should be done so that you understand what power has been used by your event activity. If they can't monitor, they will know the average energy use per day at the venue and the floor space of the area you used, so a good estimate could be devised.

Power Users: Stallholders and exhibitors will need instruction not to bring energy zapping equipment. If they pledge to not do so, you need to have some measures in place to enforce this pledge. Have them specify the equipment they will be bringing and the power pull per hour for the equipment. This will provide learning around their own energy demand and they will then be in a position to monitor it. Put additional fees and/or financial penalties on power users if they use equipment other than what they specified, or overuse supply.

Crew: Staff and crew, particularly those running stages will need to understand the expectations of power use and behavior in their working role, and expectations for energy reduction practices should be articulated formally to them. INDUCT all power users when they arrive on site to reinforce expectations and their contracted responsibilities.

Plan for Power Monitoring

Ensure you have people and procedures in place to keep on top of power use at the event during show days. Any contracted agreements for power use, power supply and power reporting should be continually monitored for compliance while the event is on and corrective action in place if required.



GUIDANCE: Powering Indoor Events

Choose a Sustainable Venue

A sustainable venue is more than being energy efficient. It includes things such as;

- Constructed using alternative and sustainable materials.
- Designed and operated to be responsive to the local climate.
- Has designed-in water management including rainwater capture and recycling, and grey water recycling and reuse.
- Is considerate to the natural environmental and sensitive to biodiversity.
- Is built with consideration of Indoor Environment Quality (IEQ) issues such as ventilation, clean air, low VOC, natural light etc.

Energy efficiency is a major element contributing to a building's sustainability; heating & cooling systems, insulation, passive solar, energy saving light bulbs, low energy appliances and equipment, lighting timers, sleep mode on equipment, etc, are all ways of reducing energy consumption.

Use Green Power

Indoor venues use mains electricity supply, which can be sourced from renewable or non-renewable sources. The bulk of Australia's power supply comes from coal-fired power stations, which are a considerable contributor to the country's greenhouse gas emissions. The alternative is clean, renewable energy such as wind, solar, geothermal, and biomass.

Renewable energy in Australia can be purchased through electricity retailers by choosing a **Green Power** accredited renewable energy tariff. When purchasing Green Power, the additional charges are invested in the renewable energy sector. When purchasing a renewable energy tariff, there is a choice of the % of power, which comes from renewable sources, for example 100% or just 20%. This figure has an impact on the final CO2 emissions for the event.

If you have no control over the mains electricity you may choose to access renewable power independently through the purchase of Green Power credits.

Conserve Energy Use

Reducing demand for power reduces the impacts of energy use. Ensuring successful implementation of energy conservation programs is dependent on staff, crew and contractors being involved and actively committed to the event's goals of reducing power demand and greenhouse gases.

Getting your heating and cooling settings working optimally will ensure you don't over-heat or over-cool the venue (auditorium, back of house, workshops, storage and production areas) and thus waste energy.



GUIDANCE: Powering Outdoor Events

Using renewable energy is a highly visible way to demonstrate sustainable energy supply in action.

Use Sustainable Biofuels in Mobile Generators

Most outdoor event's electricity supply is provided through mobile/temporary power generators. Most power generators available for hire are (by default) fuelled by mineral diesel, a non-renewable fossil fuel. The alternative is to use bio-fuels produced from 'cropped' or recycled oil stock. Power contractors that permanently commit their equipment to biodiesel are preferred, as this leads to better performance rather than swapping back and forth. Additionally, it demonstrates the contractor's commitment to sustainability.

About Biofuels

Biofuels are made from raw materials such as oilseeds, wheat and sugar, resulting in ethanol (alcohol) or biodiesel. These fuels can be seen as carbon neutral as they release the same amount of carbon dioxide as they take out during the recent growth cycle as opposed to unlocking ancient carbon through burning fossil fuels. However the use of fertilizers and other chemicals to grow fuel crops such as corn/maize, the transport and energy needed to convert to biofuels does bring them back from being carbon neutral. It's also believed only so much land can be set aside to grow biofuels before food supplies and biodiversity are threatened. Sustainable biofuel production is being regulated however, and the use of biofuel in mobile generators is still encouraged as a viable greenhouse gas emissions reduction option. Biofuels are a stepping stone to more sustainable and viable long term fuel solutions for our planet. Using biodiesel builds demand for renewable fuels, encourages a market for and demonstrates potential viability for advancement in second and third generation biofuel technologies. Waste Vegetable Biodiesel (WVO), if available and at a grade that generator manufacturers will uphold the warranties (generally ISO 14214), is the most sustainable option for biofuel as it is manufactured from waste vegetable oil.

Conserve Energy Use

Reducing demand for power reduces the impacts of energy use. Ensuring successful implementation of energy conservation programs is dependent on staff, crew and contractors being involved and actively committed to the event's goals of reducing power demand and greenhouse gases.

Does switching equipment off lead to reduced emissions if the generators are still running anyway? It must be noted that when using mobile generators it is possible that switching off equipment may cause the generator to fall under the optimal usage range and then burn off unused capacity. This possibility needs to be discussed to devise the best ways to have any 'switch off' initiatives translated to actual reduced GHG emissions. Some generators moderate the fuel consumption/capacity based on the power demand. Others simply 'burn off' unused capacity.

Use Zero Emissions Energy Supply

Alternative options for power supply are possible, such as mobile solar, pedal power, and if a commercial operator is available, hydrogen fuel cell.

- Use purpose-built power setups for live events or create 'rigs' in conjunction with solar providers. As well as powering stages, you can use these to power market stalls or solar themed educational installations.
- Hire portable renewable energy infrastructure such as solar showers, solar toilets, solar mobile phone charging stations, etc.

Manage Third Party Power Supply

If you have decided on renewable energy supply or even just the measurement of fuel volumes used in mobile power generators (diesel) you will need to monitor the use of individual mobile power supply by stallholders. Some stallholders will have vans with mobile generators installed as part of their fit out. If a stallholder, when filling out site requirements, indicates they do not need power, enquire whether they are supplying their own. If you plan to 'neutralise' the energy impacts of the event, you will need to account for this stallholder auxiliary power. If you commit to 100% renewable energy supply onsite, you may have to negotiate with the stallholder not to activate their inbuilt generator, but to take power from you.



GUIDANCE: Transport

Planning

At most events attendee travel is one of the largest contributors of greenhouse gas emissions. Air and ground travel for artists and crew can contribute a significant proportion of the impact. Additionally, the impacts of freighting equipment and supplies to and from an event when touring must also be managed.

Set Transport Goals

The overarching goals are to:

- **Reduce greenhouse gas emissions resulting from event attendee travel.**
- **Reduce greenhouse gas emissions resulting from event production travel and transport.**
- **Reduce localised congestion caused by event activities.**

Attendee Travel

Audience travel is the greatest environmental impact of most events. Audience members should be encouraged to use public transport where available. The following will aid the uptake of public transport options:

- Public transport availability, schedules and routes are actively communicated.
- Where relevant, free shuttle bus services to link public transport hubs to the event site are provided.
- A parking fee is charged which helps to encourage uptake of public transport options and dampen demand for driving.

For event venues not serviced by public transport, the following considerations are available:

- Where safely accessible, walking and cycling to the event should be encouraged.
- Provide information for online carpool matching amongst attendees for the event.
- Incentivize carpooling to increase uptake.
- If air travel is required by attendees, a carbon offsetting option is available upon purchasing of event ticket.

Freight and Production Transport

The movement of equipment and goods to events is generally under the remit of third party contractors providing goods and services to the event. Additionally large event sites may have at-event site transport for crew, talent, and attendees. The following are a matter of policy for freight and production transport:

- Contractors providing goods and services to the event, which require the delivery of equipment and supplies, are asked to consider sustainable transport options such as load sharing and route planning.
- Where possible, vehicles, plant and machinery onsite are used which run on sustainable renewable fuels.

Parking and Traffic Management

Traffic congestion at the venue can contribute significantly to the event's transport emissions. Finding the most efficient way for cars to enter and exit parking areas will greatly improve sustainability and provide a more pleasurable experience for attendees. It is important to identify problem areas for congestion, work to maximize efficiency and ensure sufficient staffing to those areas for on-the-ground management.



Talent Travel

Talent will need to travel to the event. If possible, it is best to avoid air travel. Other considerations in reducing the impact of talent travel include:

- Routing of flights in such a way to minimize total travel distance.
- Economy seats booked unless business or first are a requirement of talent contracts.
- Public transport, people movers and car pooling are used for airport/hotel/event movements.
- Low emission or hybrid vehicles are chosen by preference for all hire vehicles.
- Performer and crew travel GHG emissions are offset through the purchase of carbon credits.

Employee Travel

Year round business activities may require travel by the event management and staff. The following measures can be taken to reduce these impacts as much as possible:

- Teleconferences are undertaken as a first preference in place of air travel and face-to-face meetings.
- Routing of flights is done in such a way to minimise total travel distance.
- Economy seats booked as a matter of policy for most trips.
- Low emission or hybrid vehicles are chosen by preference for all hire vehicles.
- Flight distances and numbers are reported and total GHG emissions calculated.
- Business flight GHG emissions are offset through the purchase of carbon credits.

Carpooling

Carpooling to events is one of the most significant contributions attendees can take to reduce the impact of their event experience. Online ride share matching tools are available to connect drivers and passengers to share a ride. These tools also identify any of the user's social networking contacts on Facebook, MySpace and LinkedIn to match people that already know and trust each other.

These tools will provide a CO2 calculator to track the emissions avoided through carpooling by attendees.



GUIDANCE: Waste

Planning

The potential impacts of waste produced at events in the LGA include the negative effects of waste going to landfill, and biodegradable waste in landfill producing leachate that is a hazardous biological substance – which then pollutes local catchments and associated waterways.

All areas of an event including planning and production can potentially produce waste. All event stakeholders and attendees also play an integral role in waste management. Therefore waste needs to be managed strategically and in alignment with the local waste management procedures and strategies for the wider community.

Waste management services for outdoor events are often supplied by the local waste contractor, however event specific waste coordinators and volunteers are needed at event sites for the most effective and efficient waste management strategy.

Some parks in the LGA have supportive infrastructure with fitted bin stations, taps and bubblers, however all events require a greater numbers of bins and waste management systems to cater for increased demand associated with large numbers of attendees descending on the venue in a short period of time.

Indoor events will utilise the venue-specific bin systems with additional resources put in place for waste streams such as compost.

The total waste created and recycled at an event has a direct and measurable impact on the total greenhouse gases (GHG) produced by an event. Waste measured by the tonnage is converted into a CO₂ calculation providing the total carbon emissions just from waste at the event.

Reductions in the impact of waste produced by an event can be through:

- Using re-usable, borrowed, secondhand and rented products where possible.
- Establishing an effective waste collection procedure for the event.
- Diverting **all** biodegradable materials from landfill.
- Recycling and salvaging as many resources as possible.

Set Waste Goals

The overarching waste goals for an event should be to:

- **Reduce total waste produced by an event – ultimately aiming for zero waste.**
- **Maximise use of re-usable items and salvaging waste materials from the event.**
- **Maximising the amount of waste that is recycled or re-used, thus reducing greenhouse gas emissions and landfill hazards; as a result of diverting waste from landfill and incineration.**
- **Eliminating pollution of the local environment including waterways.**

Follow these steps to establish detailed waste goals:

- **Establish a baseline**
Where available, understanding the waste produced previously at this or a similar event is important to establish reduction goals. Alternatively estimates can be used if no measurements were previously in place.
- **Identify where reductions can be made**
Investigate the likely waste patterns of various event stakeholders. Plan to manage the reduction in waste production by those identified scenarios.
- **Establish and Communicate your waste goals**
Work with all event stakeholders and the attendees to engage them in reducing waste. Get creative to develop innovative ways to engage the community and attendees in the waste management of the event. Communicate goals and actions.
- **Monitor compliance**
This is key to keeping your goals on track. Have permanent bin station monitors assisting with the effective disposal of waste into the appropriate streams. Additional staff and/or volunteers can audit the bins that are removed from the main event arena, ready for processing.



GUIDANCE: Waste

Plan for Waste Minimisation

Consider the following when planning waste management logistics at local events:

- Are event materials and equipment primarily purchased new for the event, resulting in an over-use of resources and ultimately an increase in greenhouse gas emissions?
- If resources and equipment are required, are they first sourced through sustainable options such as renting, borrowing or purchasing secondhand?
- Is minimum or zero waste possible for any (or all) of the waste streams?
- What initiatives are in place to reduce waste?
- Is your marketing campaign aimed at minimising paper consumption?
- Have the waste management requirements of the event been accurately estimated? Under-estimation may result in excess contamination in the various bins.

Communicate Waste Goals

Successful implementation of waste minimisation strategies means ensuring all event stakeholders including attendees are involved. For example, waste management strategies need to be in place right across the event and also the organisation creating the event. The strategy needs to commence wholly within the organisation first and feed out to the event stakeholders and attendees. Once you establish how to reduce, minimise or eliminate waste, ensure the commitment of all stakeholders across the organization, which will be required to successfully achieve the waste goals for the event.

Contracts – build in Waste Minimisation Requirements

Once contributors to waste (organisers and all event stakeholders) and coordinators of the event waste management strategy (staff, crew, contractors, stallholders, facilitators, other third parties) are engaged with waste goals for the event through your communication efforts above, the next step should be taken for contracted agreements to include expected behaviour.

Suppliers: All event suppliers (marquees, power, catering, fencing, staging, generators etc) should have certain requirements placed on them to ensure compliance with the event's waste management strategy. Suppliers may be considered more favourably if they have their own waste management (and sustainability) policy and strategy. It is suggested that organisers require to manage all waste appropriately and if possible display their efforts to salvage and re-use materials from the event. Additional reporting requirements may also be requested such as amount of waste created and/or by the supplier during production.

Venues: As many (if not all) of the Council's events will be conducted on Council land (reserves, parks and halls). An integrated Waste Management Policy to be implemented across all venues, would be supportive of the Council's efforts to enhance sustainable event production. Supportive infrastructure, resources and signage would contribute to a unified communication of the waste management policies of the LGA. Council could also build these policies into the strategic management plans whereby they work with other local venues such as Surf Lifesaving Clubs, RSL's, etc to implement the same waste management strategy in these venues.

Stakeholders – stallholders, crew, facilitators & entertainers: Strict waste management requirements can be implemented into stallholder agreements. It is essential to be clear with all stakeholders prior to the event so the criteria and expectations for their participation, are clearly understood. This will also ensure accountability for their waste management procedures.

Plan for Waste Monitoring

Bin Monitors are people, usually volunteers, who are stationed at the bin stations on shifts for the entire duration of the event. The role of Bin Monitor is critical in waste management for a number of reasons:

- **Education:** Bin Monitors act as a catalyst to waste education and provide assistance for attendees who are unsure of which bin to use and/or why.
- **Minimise contamination:** Significantly reduce or eliminate contamination between bin types.
- **Maximise recycling and landfill diversion:** Often people will put items in the general rubbish bin that can go in the compost/biodegradable bins. Bin monitors will assist this process being done correctly, thus reducing the amount of waste going to landfill.
- **Social cohesion:** Often providing volunteers a significant role at a community event builds awareness, raises community spirit and understanding, and inadvertently breeds waste champions who then continue to spread the message in a broader context in the community.



GUIDANCE: Water

Planning

Water is a valuable, scarce, highly sought after and protected commodity. Due to the prevalence of rivers and natural bodies of water in the Hawkesbury City Council LGA, protection of waterways from event activities is a highly visible issue. Including water conservation and waste water management into event planning will be an integral part of its sustainability. Whether an event is in an indoor venue, a park or a Greenfield site, it uses clean water and produce waste water.

Water is used and waste water is produced at events through catering and food stalls, drinking taps, cleaning, toilets, showers, hand washing, misting stations, dust settling and grounds preparation.

Key considerations when planning your event are:

- Identifying issues concerning potential disruption to or interference with natural waterways and planning event activities to avoid negative impacts.
- Consider legacy opportunities for regeneration, enhancement or protection of waterways and immediate surrounding ecological environment.
- Planning the most effective onsite amenities procedures to ensure adequate and functioning facilities are available, to reduce unnecessary wastewater volumes, and to ensure no use of chemicals or contamination of land or waterways.
- Amenities suppliers (toilets, urinals, water supply, sewage removal, cleaning) are used which have their own sustainability policy. This ensures they have the capacity to support the event's goals of water conservation and protection of waterways.
- Adequate toilets and urinals are provided given the various capacities for the event.
- Amenities contractors have access to the Green Hawkesbury City Council sustainability resources which outline policies and goals surrounding water use conservation, protection of water ways, chemical use, and reduction in waste water volumes.



Set Water Goals

The overarching water goals for managing potential water-based impacts and issues are:

- **Minimise disruption to natural bodies of water and the immediate ecological environment.**
- **Ensure no contamination of waterways from event activities.**
- **Reduce water used by the event.**
- **Ensure no chemical contamination of waste water.**
- **Reduce wastewater produced by the event.**

Follow these steps to establishing detailed water goals:

- **Establish a baseline**
Understanding previous water demands is important to establish reduction goals. Alternatively estimate the amount of water demand there could be used if no interventions were put in place.
- **Identify where savings can be made**
Work with venue owners and portable amenities contractors to identify areas for improvement.
- **Establish and Communicate your water goals**
Communicate water saving goals with set-up crew to ensure local habitats are adequately protected and landscape irrigation is undertaken in the most efficient way. Communicate goals and actions for amenities.
- **Monitor compliance**
Ensure that audience members are kept out of sensitive riparian habitats and using provided amenities accordingly.

Water conservation

Reducing the amount of water used conserves precious resources and directly impacts greenhouse gas emissions reduction. By reducing the need to transport water and sewage to and from the event and the energy needed to produce potable water and process sewage, greenhouse gas emissions are prevented from entering the atmosphere.

Water may be supplied to the event by water tankers, by mains water, or the event may harvest water off roofs, stored in tanks for use during the event. Whichever method, water conservation should be the goal.

Ways to reduce water consumption include:

- Reduce water pressure on taps, hoses and standpipes.
- Use low-flow/water-saving showerheads and taps.
- Use tap fittings that have an automatic stop mechanism.
- Use organic dust suppressant additives to reduce the amount of water used to dampen dust.
- Rather than water supplied to each vendor, have central standpipes so water is carried to food traders.
- Use water-free toilets, portable compost toilets & water free urinals.
- Supply hand sanitizers which require no water for hand-washing rather than soap or gel.
- Use hand-held misting sprays not constantly running misting stations for cooling attendees down.
- Reduce water consumption through 'water wise' grounds preparation and gardening.



Waterways Protection

Rivers and bodies of water are protected from potentially polluting or disruptive event activities by adherence to relevant regulatory authority requirements. Regulatory considerations include:

- Environment Protection Agency requirements for activities near waterways.
- NSW Maritime requirements for protection of activities on waterways.
- HCC requirements and regulations for activities near waterways.

Protecting natural waterways from contaminated surface water runoff or ground water flow is important. When planning an event with rivers and natural water bodies on site, consider the following:

- Waterways are protected from physical interference by being fenced off or out of bounds.
- Riparian zones are protected from disturbance by no physical infrastructure placed within distances prescribed by regulatory authorities.
- Waste water (sewage and catering sullage) is removed from the event site either directly into sewer mains or through tankers taking liquid waste to treatment facilities or sewer mains deposit points.
- Ensure the supply of adequate toilets to avoid urination on land and waterways.
- Operations ensure no contaminated water is deposited onto the ground where it may make its way to watercourses (through runoff or ground water).

Health and Safety

Providing water is a health and safety requirement for most events. Safety and hygiene are paramount to any decision an event makes about water supply, management and treatment. Each local council will have regulations on what can and can't be done with water. The Environment Protection Agency and state-based Waterways Authority will also direct what can or must be done to ensure healthy and protective water management practices.

Waste Water

Waste water can either be disposed of through a sewage treatment plant or directly onto the land. Events that are not connected to municipal sewer lines will need to arrange for their waste water to be pumped into tankers and taken by road to sewage treatment plants. Some grey water may be able to be disposed of at the event site.

Chemical free waste water should be the event's goal. Sustainable solutions for waste water management, includes management of emissions to water, waste water processing and grey water recycling.

Harmful emissions to water sources at events include:

- Contamination through chemical-based cleaning products, personal products, hand washing and catering waste water.
- Urination directly into waterways or onto the ground, which can make its way to waterways through ground water if the event is muddy and wet.
- Using paints with toxic substances which remain in wash-up water disposed of into sewer systems or directly onto the ground.
- Using chemical-based toilet treatment products to mask odour where sewage treatment works use a biological process.

You can prevent toxic chemicals entering waterways and treatment plants by using chemical free cleaning products, using biological toilet treatment products (or no additives at all), and using non-toxic paints if required.



Toilets

Toilets at events with large numbers of people are often a key operational challenge. Impacts of toilets at events include:

- Volume of water used for flushing.
- Chemicals used to treat sewage and mask odours while at the event.
- Transport of toilets to and from the event along with transport of sewage to disposal point.
- Emissions both methane & CO₂ in the treatment of sewage and its transport.

Water use

Flushing toilets with unnecessarily large volumes of water, and water that is of drinking quality, is wastefulness of a precious resource. The only solution to reducing the volume of water used at your event is to ensure you use waterless urinals, low volume flushing toilets or waterless toilets (composters).

About compost toilets

Compost toilets are environmentally friendly alternative to water or chemical intensive toilets. Essentially a dry toilet, they are chemical free, odour free and if operated at their best, reduce transportable waste by 80% to 90%. There are a several options in the marketplace currently, and it is likely more toilet operators or enterprising businesses will develop further solutions.

Chemical use

Sewage treatment plants use natural biological methods to treat sewage. Large amounts of disinfectant or chemicals in the effluent prevents the ability of these systems to work effectively. So if the event produces large amounts of sewage waste, which will be taken to a local and relatively small treatment plant, care should be taken to treat your toilets with appropriate products.



GUIDANCE: Procurement

Planning

Ask these questions:

- **Do you really need to buy it in the first place?**
- **Can existing products or equipment be used instead of buying new goods?**
- **Can you hire or share instead of purchasing?**

Here are some tips to sustainable procurement:

- Agree on sustainable purchasing objectives and integrate them into a simple Sustainable Procurement Policy that clearly states your intentions.
- Set up a 'preferred products' list with consumables suppliers, to ensure that when ordering, the greenest and pre-approved products are delivered.
- Incorporate sustainable procurement criteria into all key contracts, starting with those that are high spend, have a high environmental impact and are easily influenced.
- Award new contracts on the basis of value for money and whole life costing, not at the lowest price; green purchases may have lower operating or disposal costs.
- Regularly review purchases to assess their impact regarding emissions to air and water, waste to landfill, resource use and environmental quality.
- Engage existing suppliers who may be able to provide products or services to fit in with your new procurement policy. Seek their feedback before targeting new suppliers or contractors. Ask supplier for sample products.

The tips to sustainable procurement are:

- Buy less.
- Hire rather than buy.
- Buy items that are made from sustainable materials.
- Buy items produced by organisations that look after their workers well, including a fair price paid to raw material provider.
- Buy items that can be re-used.
- Buy items that can be recycled.
- Buy items that are low energy to make and to run.
- Buy items that don't use lots of water to grow/manufacture.
- Buy items that are non toxic – in its growing, manufacture, use and disposal.

Reducing Consumption

Reducing the amount of required supplies will save money and the environment. The money saving is simple – buy less stuff, spend less money.

From an environmental perspective, using less stuff creates impact reductions all along the life cycle of a product; mining up and transporting the raw materials, energy needed to manufacture, transport of goods to wholesalers, transport to retailers and transport to your door.

There are savings all along the way including raw material, fossil fuels, water, energy and carbon. There are even carbon impacts from processing the left over waste; waste miles, methane emissions from landfill, energy in processing waste.



GUIDANCE: Procurement: Food & Beverage

What is available for event attendees to eat and drink will be a public statement of your ethical and environmental purchasing policy.

Many people are health conscience and they may have an expectation for healthy and organic options. They would also expect that you have carefully considered the impacts of food and beverages sold. Of importance for events with a Water Scarcity focus, how water is provided to drink will be of utmost importance.

The key areas for consideration in food and beverage consumption are:

- **Drinking water supply.**
- **Use of sustainable food and beverages.**
- **Use of sustainable service-ware & arrangements for disposal.**

Consider the following:

- Organic: Embracing and promoting the consumption of organic foods.
- Use certified products: Choose products which are certified by an eco label.
- Source local products: Support the community that supports your event. Consider food miles.
- Support sustainable agricultural products: Use Rainforest Alliance or UTZ Certified produce.
- Support ethical production: Choose animal products from those that have been raised free of cruelty.
- Support fair production: Choose products with fair trade and fair labour certification.
- Support sustainable seafood: Use only sustainable harvested seafood products.
- Identify and source food and beverage products which can be sustainably sourced. This includes:
 - Fair Trade tea, coffee, sugar, chocolate, rice, bananas, nuts.
 - Free range eggs.
 - Chemical free and free range chicken, lamb, beef and pork.
 - Sustainably harvested seafood, including NO endangered or threatened species.
 - Organic and/or local fruit and vegetables, oils, nuts, grains and other direct from farm produce.
 - Organic and/or local dairy products.
 - Organic and/or local packaged, frozen or tinned produce.
 - Local and/or organic bottled juices and soda beverages.



GUIDANCE: Procurement: Event Merchandise

Branded apparel and other merchandise items are an integral part of many events. They are a sought after item by audiences and also an essential income stream for organisers and talent.

The event merchandise and collateral have potential sustainability issues which need to be considered and the best procurement choices made. Issues include;

- Manufacturing process.
- Trade and labour issues.
- Toxicity issues.
- Transport impacts.
- Packaging issues & impacts.

When reviewing potential purchases, consider the following:

- Are the product's raw materials grown or produced with environmental responsibility?
- Does raw material production have decent and safe working conditions?
- Are fair trade principles included in the production of raw materials?
- Are the raw materials and final product free of toxic substances?
- Is manufacture undertaken with safe and fair working and labour conditions?
- What is the transport impact of the products? (raw material to manufacture to you)?

What are the solutions to sustainable merchandise?

- **Buy locally manufactured products**
By choosing local you are supporting your local economy. Dual benefit exists of reducing transport impacts and therefore greenhouse gas emissions.
- **Buy products from companies which treat their workers well**
This commences at the start of the supply chain, for example workers on cotton farms. There are several independent standards, certifications and campaigns which highlight good labour practices on farms, in mines and in factories.
- **Buy products where the raw materials have been fairly traded**
Cotton is a major apparel raw material and will make up a large amount of event and talent merchandise. As a commodity, cotton prices are often fluctuating through global trade. As cotton is often produced in developing countries, Fair Trade programs are in place to ensure a fair price to cotton farmers and consequentially fair wages and decent working conditions for those who work on the farms.
- **Buy products which are manufactured with environmentally sound practices.**
This includes ensuring the manufacturing process is not polluting to the natural ecosystem or dangerous to worker health.
- **Buy products that are made from sustainable materials.**
This can include organic cotton, material made from recycled PET bottles, hemp, bamboo or other natural renewable or recycled materials.
- **Buy products which have no toxicity issues.**
Many products are made from materials that have latent toxicity issues. Choose products with independent verification of being 'toxin free'. This can be organic certification or Oeko-100/1000 certification for apparel. Other product toxin free considerations include PVC free and BPA free.
- **Buy products with reduced packaging.**
The way individual items are packaged for delivery to the site will influence the total waste produced. If you can influence the packaging that items come in, request minimal packaging. Does each item need to come in its own plastic bag, which is then in another bulk plastic bag, and then in a box, which is packed shut with packing tape and then stacks of boxes on pallets which are then wrapped in stretch plastic? Involve your supplier in coming up with a reduced packaging solution.

Independent Certification:

The sustainability credentials of apparel and manufactured items and their supply chain are increasingly being moderated through eco-labeling and certification. This is the best way to ensure fair labour, fair trade, environmentally sound and toxin free production of the items that you choose to use.



GUIDANCE: Procurement: Ticketing & Wristbands

Sales outlets can be online, through retail stores or approved outlets, or at the venue itself. Wrist banding is another level of identification, with the wristbands typically colour coded to identify the wearer to security or gate staff of access rights.

Although the paper used in ticketing may be a relatively small proportion of the overall materials consumption of an event, combined across all events taking place, adds up to be a considerable amount.

Solutions to reducing the environmental cost of ticketing are possible. Additionally, the ticketing phase is being used to have the audience opt-in on taking on their share of the environmental cost of their participation in the event.

Specialist ticketing companies have developed as the event industry needed a formalized system to handle the huge volumes and diverse geographic regions which people may travel from to see big shows. The ticketing agency also acts as security bond, with most holding the money in trust until after the show is successfully delivered, thus offering peace of mind to audiences who have paid over significant sums of money to go to an event.

Considerations in ticketing include:

- **Do you need a physical printed ticket, can everything be electronic?**
- **If printed, does each ticket need to be mailed out?**
- **What paper stock, printing inks and process for physical production of the ticket and any accompanying promotional material are used?**

Traditionally, tickets are physical printed card, often with tear off portions. These, as with coloured wristbands are often valued keepsakes of shows attended and good times enjoyed.

While customer experience should be considered, cutting out the ticket stage and jumping straight to wristbanding, can potentially prevent the transport of enveloping and mailing tens of thousands of tickets. This still provides the audience with a memento but eliminates the printing and transport of tickets.

However, practicalities do come into play and those events or festivals where the scale doesn't allow the logistics of paperless ticketing to be viable, will need to address their ticketing impacts through reduction of extraneous printed material accompanying the ticket and through ensuring any promotional printing is as sustainable as possible.

If a ticket or wristband is produced the following need to be considered:

Tickets:

- What are the specifications of the paper/card the ticket is printed on? Are sustainable materials used?
- What inks, varnishes, laminates are used?
- Does the printing company have independently assessed sustainability practices in place in printing operations?
- Is the ticket manufacture process energy intensive? For example are any special security elements added to the ticket that require highly specialised and energy intensive processing?
- Where are the tickets produced? How far to tickets need to travel from point of manufacture to point of distribution to customer?



GUIDANCE: Procurement: Ticketing & Wristbands

Wristbands:

- What material is the wristband made of?
- Is the manufacture of the chosen material hazardous?
- Is the manufacture and printing/branding of the wristband hazardous?
- What printing inks, if any, are used?
- What are the labour conditions in the factory the wristbands are being manufactured? Does the factory have **ILO** or other **labour based** certification?
- Where are wristbands manufactured? How far do the wristbands need to travel from point of raw material manufacture, to point of wristband manufacture, to point of distribution, to event location?

Paperless Ticketing:

Instigating a paperless ticketing system eliminates the need of printing and mailing tickets (whether plain paper or high tech security tickets).

In paperless ticketing systems, tickets are paid for on the phone, online or in a retail outlet. A confirmation number is supplied (by email, sent to a mobile phone). The credit card used to purchase the ticket is swiped at the ticketing gates at the show, and the physical ticket step is leap-frogged to supply of a wristband or direct entry into the gig.

Green Tickets:

The concept of Green Tickets is seeing more popularity. Green tickets are based around a carbon offset or other 'eco' product or activities opt-in aligned with the ticket sale.



GUIDANCE: Procurement: Printing

Events often require printed materials for communication and sponsorship marketing, including maps, schedules, drink vouchers, VIP passes, access passes, promotional posters, outdoor posters and tickets.

Planning

Printing single use items is resource intensive and there are a number of sustainability considerations when selecting printers and materials:

- Type and source of paper.
- Inks and varnishes used.
- Print company processes and policies.
- Location of print company and consequential transport impacts.

It is important to reassess printing requirements to reduce unnecessary waste at the event. Ask the following questions:

- Can information be distributed electronically?
- Is it feasible to create an iPhone application for the event?
- It is possible to reduce the quantity and size of printed materials?
- Can the number of pages in booklets and programs be reduced?

Paper Stock

Use paper with a high level of Post Consumer Wastepaper, preferably 100% Post Consumer Recycled paper. That means paper that has been used before, put in into the recycling system and made back into paper. If from a mix of virgin and recycled pulp, check that the virgin pulp is **Forest Stewardship Council (FSC)** certified and at most 25% virgin and 75% recycled. Always check paper stock for eco-labeling (recycled content or sustainable forestry).

Paper Certification

Forest Certification

Using paper with forest certification ensures the user that source forests are sustainably managed and harvested. Two of the most well regarded forest certifications are the **Forest Stewardship Council (FSC)**, and **Program for the Endorsement of Forest Certification (PEFC)**.

Forest certification programs promote environmentally, socially and economically sustainable use of forest resources. This ensures the harvest of forest products maintains biodiversity, productivity and ecological processes. Socially beneficial management incorporates the local people and provides strong incentives to manage resources for long term gain of the community. The system is maintained by the generation of sufficient profit due to a market for sustainable forest products.

Paper Bleaching

The **Chlorine Free Products Association (CFPA)** offers certification for paper. Choose 'Processed Chlorine Free' for recycled paper and 'Totally Chlorine Free' if the paper is made from virgin pulp or mixed with recycled paper. Avoid 'Elemental Chlorine Bleached Paper'. The CFPA is an independent not-for-profit accreditation working to promote sustainable manufacturing policies, programs, and technologies.

Carbon Labeling

Carbons 'labels' are starting to appear. Just like ingredients or calories, the label states the carbon footprint of the product's manufacture.



GUIDANCE: Procurement: Printing

Inks & Finishes

Using vegetable/soy inks rather than traditional mineral oil based inks is preferable. Traditional inks emit Volatile Organic Compounds (VOCs – greenhouse gases) and also have toxicity issues in the residue ink which must be disposed of. The liquid used in inks is generally petroleum based, a non renewable resource. Vegetable based inks instead use vegetable oil. This drastically reduces the VOCs and the clean up process can be done with water, rather than more solvents, which would emit further VOC's. It is also worth noting it is advisable to avoid metallic or fluorescent colours as they usually comprise of toxic compounds.

Printing Certification

One way to ensure the printing process used is the most responsible is to use a printing company that has independent certification.

ISO 14001 Environmental Management System is the first step to a measurable and validated environmentally-friendly print operation.

Sustainable Green Print (SGP) is the Australian printing industry's own recognisable certification program designed to help printing companies meet their environmental responsibilities and go above and beyond compliance.

Varnishes and Coating

Varnishes are often added to printed materials to make them more durable and so the item won't scratch or get scuff marks. Usually varnishes are solvent based and emit VOCs, but there are vegetable based varnishes, just as there are inks. Ask your printer for the options they have available.

Lamination Gloss

Printed materials often have a glossy finish, in which the gloss or laminate is made from petrochemicals. It is basically a plastic that is not readily biodegradable or recyclable. The environmentally preferable option, if you want your printed materials glossy, is to use a biodegradable laminate.



GUIDANCE: **Procurement: Signage**

Signage at events is often created for one-off purposes, or re-used across tours. Signs are required for directions, stage times and event branding. Additionally banner roll and scrim for stages and fences is used (branded and unbranded).

The production of signs, banner roll and scrim has potential sustainability issues which need to be considered and the best choices made. Issues include;

- What materials are used?
- Can they be recycled?
- Are signs and scrim reused?
- Is printing on signs low or VOC free inks?
- Does the signage company have sustainability initiatives in place?
- Does the signage company have a sustainability policy?
- Is the signage company independently certified?
- Where is the signage company located and what are the transport impacts?

Consider this:

- Use signage companies which have sustainability practices in place.
- Use only signage companies with ISO 14001 certification.
- Signs are worded so they can be used across multiple events.
- Corrugated plastic signs use 'Encore' instead of 'Corflute'. Encore is manufactured from post-use Corflute rather than virgin materials.
- Include the '5' plastic recycling symbol on all sign artwork so that if they end up at waste facilities, they will be selected for recycling.
- Signs are produced on materials that can and will be recycled.
- Inks to preferentially be vegetable/soy based (VOC free).
- The use of vinyl (PVC) banners is avoided where possible.
- Send signs for reuse/repurposing by organisations such as Reverse Garbage.
- Those signs which can't be reused are packed up and arranged to be sent back to Corex for recycling.
- Branded banner roll is stored and re-used. It is only discarded if it is discarded or contaminated.
- Fence scrim is stored and re-used. It is only discarded if it is discarded or contaminated.



GUIDANCE: **Procurement: Audio Visual (AV)**

Using watt-zapping lights, energy-hungry equipment and running equipment inefficiently or unnecessarily will drive up energy use, resulting in increased greenhouse gas emissions.

The production department can play its part in reducing the overall greenhouse gas emissions at an event. Remember that ever compounding over-estimates in energy requirements may result in over-sized power generators being supplied (from bands & their technicians, to event production crews, to power contractors), and that under-utilised power generators still means maximum fuel use and greenhouse gas emissions.

Manufacture Impacts:

The manufacture, use and disposal of sound, lighting and visuals equipment can also have a significant life-cycle environmental impact.

LED Lighting:

LED lighting has much lower energy requirements than conventional lighting, as well as lower consumable requirements (colour and lamps). While some LED units are not yet suitable for all lighting applications, they are perfect for events and productions where the lighting is running for long periods of time, when low power consumption offers even greater benefits.



GUIDANCE: Procurement: Timber

Timber is used for construction, decor, staging, props and sets. Third-party contractors as well as on-site event crews use timber.

There are potential sustainability issues that need to be considered and the best choices made when procuring timber. Issues include;

- Chain of custody of timber.
- Sustainable forestry practices.
- Sustainable forestry certification.
- Using non-hazardous timber products (MDF).
- Timber reuse.
- Timber recycling.

Sustainable Forestry: Timber is sourced from forests throughout the world. The problem with timber is once logged and moved from its original forest, it is very difficult to identify whether it has been either sustainably produced, or legally logged at all.

The only way to be sure that timber isn't from old growth virgin forests, logged illegally or using unsustainable practices, is to purchase certified forest products. Illegal or poorly managed forests ruin ecosystems, deplete biodiversity, and displace communities preventing the self-sufficiency of indigenous people who depend on the forest for survival.

Consider this:

- Plywood is used in preference to MDF. (MDF should not be used due to its toxicity and the wood dust which results when cutting it. Additionally it is not recyclable).
- Timber which has sustainable forestry certification (such as FSC or PEFC) is used.
- Recycled timber is used if appropriate.
- MDF is not used, or if used, source formaldehyde-free PVC made from recycled wood pulp. A timber recycling/salvage system is put in place at all events.
- Upon site break-down, timber which is no longer required, is de-nailed and sent to a salvage yard.
- Timber which can't be reused is de-nailed and sent for recycling.

The primary issue in choosing timber is to ensure it is sustainably forested and harvested.

- Use only timber that has been sustainably forested.
- Use timber suppliers that only use certified sustainably forested timber.
- Insist on proof of certification.
- Use recycled timber where appropriate.
- Reuse or send timber for salvage after use.
- Recycle timber that can't be reused or sent for salvage.



GUIDANCE: Procurement: Paint

Paint is used for props, décor, sets, staging and signage. Items are painted offsite by sub-contractors and onsite at the event. There are potential sustainability issues, which need to be considered and the best choices made when buying, and using paint.

Unused paint is stored for future use or donated to a community recycled paint program.
Paint wash-up water is disposed of responsibly, given the particular facilities of the painting location.

Volatile Organic Compounds (VOCs)

The lovely fresh paint smell is actually the paint 'off-gassing' Volatile Organic Compounds (VOCs). VOCs are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short and long-term adverse health effects. They are also considered a greenhouse gas. The VOCs come from the chemical and solvent mix that paint is made from. The carcinogens and neurotoxins in paints include benzene, formaldehyde, kerosene, ammonia, toluene, and xylene. (Those last two are solvents.) Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. Worker's health is a concern for crews who paint props, sets, decor, staging and signage during the production phase.

- Buy low or zero VOC paint. The VOC amount will be written on the side of the can.

Water Based

This is the 'acrylic' versus 'enamel' paint issue. Water based paints (acrylic) are quicker drying, naturally lower in VOCs as they are not solvent based, and don't need solvents to be used in wash-up. Paints that are water-based will still contain pigments and chemicals, with consider also to be given to the wash up and waste water disposal.

- Use water-based (acrylic) rather than solvent-based (enamel) paint.

Non-Toxic Paint

A more sustainable alternative is to use paints that have non toxic pigments. Look for 'eco paints', there are many on the market.

Paint Wash-up:

Unless you use a zero VOC and certified non-toxic paint, sending paint contaminated water down the drain is not appropriate. Paint solids need to be separated from water, or solvent sillage should be placed in a sealed and disposed of correctly (enquire with waste services; they will know what is appropriate given local facilities). Commercial painting operations (offsite decor, staging, signage and prop production) will have paint sillage disposal facilities in place as a matter of law.

- Ensure that paint wash-up sillage is disposed of responsibly whether onsite or at permanent production facilities.
- Enquire how people painting decor, staging, signage, sets and props are disposing of paint wastewater

Unused Paint

Unused paint should be stored and reused or donated to a community re-paint project.

- Donate unused paint to local community re-paint projects.

Links

- Eco Specifier database - www.ecospecifier.com.au/products.aspx
- Good Environmental Choice Australia - www.geca.org.au/certified-products.html
- Green Painters - www.greenpainters.org.au



GUIDANCE: Procurement: Cleaning Products

Conventional cleaning products are a cocktail of chemical compounds, solvents, bleach, artificial fragrances and the like. They may cut through grease, decontaminate and leave a room lemon fresh, but at what cost? Conventional cleaning products come at a great cost to our health and the health of the environment.

Negative impacts against conventional cleaning products can include using non-renewable resources, emitting greenhouse gases, and poisonous to waterways and aquatic life.

Green cleaning should protect health without harming the environment

- Use Renewable Resources: Raw materials sourced from vegetable and mineral resources.
- 100% Biodegradable: All components will biodegrade, with all that remains being water, CO₂ and minerals.
- Non-Toxic: Green cleaning products are non-toxic to aquatic life, and are safe for septic systems (and therefore your sewerage treatment plant), free from chlorine bleach, synthetic dyes and artificial fragrances.
- Solvent Free: Therefore, are VOC free.
- Phosphate Free: When phosphates hit the waterways they disrupt the natural balance in lakes and streams, allowing abnormally high algae growth.
- Meet Government Standards: Look into government standards for cleaning products and actual product performance.
- Eco-labeled: Look for eco-labeling program and ensure cleaning products meets these standards.
- Commercial grade green cleaning products are readily available in most markets.
- Insist your cleaning contractors use environmentally sound cleaning products.
- Insist on caterers and food traders use environmentally sound cleaning products.

Toilet Paper and Hand Towels

- Toilet paper and paper towels/hand towels should be made from recycled paper. There is no excuse to use toilet paper made from virgin pulp.

Bin Bags/Rubbish Sacks

- Use bin bags made from recycled plastics. Use biodegradable bin bags to collect compostable material.



GUIDANCE: Procurement: Drinking Water

Having on-site fixed water taps and bubblers is the best option for any event. Council should ensure these items are in all Strategic Plans of Management for all Council venues, parks and reserves.

Provision of drinking water at events will be through drinking fountains or taps into re-usable bottles and disposable cups, or through the sale or provision of bottled water.

You will need to assess the availability of supply of potable drinking water, who needs access to water, and under what circumstances. Your options are:

- Mains water supply.
- Bulk storage tanks, permanently on location or transported in.
- Bottled water.

The most environmentally preferable option is to provide locally sourced water in re-usable containers.

- Use tap water or bulk stored water where possible.
- Align with a water project such as 'Take Back the Tap'¹ which promotes drinking tap water.
- Encourage participants to bring re-usable water bottles.
- Sell or provide re-usable water bottles.
- Sell or provide water bottle holders/carriers.

Bottled Water

Bottled water will be necessary in some circumstances. We recommend you find a locally sourced and packaged product, and if possible, one whose profits flow back to support water projects worldwide. You may also be able to find a 'charity water'. Diligently background check the company to ensure the profits will indeed flow to reputable projects.

¹ www.foodandwaterwatch.org/water/take-back-the-tap/



GUIDANCE: Procurement: Hotel Accommodation

Hotel nights may be booked by events for crew, talent and sometimes attendees such as delegates at conferences. Additionally some business travel requires hotel night bookings throughout the year.

Hotel accommodation choice will contribute to the overall sustainability performance of the event.

Considerations include:

- Proximity to the meeting location/s.
- Hotels built with sustainable design.
- Hotels operated sustainably.
- Hotels with independent sustainability performance certification.

Location

First assess which hotels are closest to the event venue. The closer the hotel, the quicker the commute for artist and crew, and the smaller the greenhouse gas emissions will be related to this transport.

Sustainability Credentials

Event producers don't have control over how hotels choose to run their establishment, but they can analyze potential hotels and determine which are the most sustainable options.

Now it is time to contact the hotels themselves to find out what green efforts are really being made by them. Things to ask the hotel:

- Does the hotel have a sustainability policy in place?
 - Do they have any information regarding any sustainability initiatives in place? Does the hotel building have any green building certifications?
 - Does the hotel have any green or sustainability hotel certifications?
1. Choose hotels which have independent sustainability certification – **Earthcheck** or **NABERS**.
 2. Choose hotels which if have no independent certification, have policies and procedures in place to enhance their sustainability performance.



GUIDANCE: Procurement: Food & Beverage Serviceware

Provision of food and beverage for large audiences and the general public is likely to be in take-away disposable containers. The most sustainable option is to use washable and re-usable cups, crockery and cutlery.

- Use re-usable and washable service-ware where possible.
- If re-usable/washable is not possible, use disposable service-ware that is compostable.
- Ensure you have a system in place to collect food scraps and compostable service ware.

Knowing in advance how your packaging will be disposed of is essential in determining what to use. If you have nowhere to process compostable food scraps and packaging, sending it to landfill will create damaging methane emissions. Food and beverage packaging is a difficult area to manage when multiple events are being produced located in various locations. Local waste treatment and processing options will vary from suburb to suburb, city to city, state to state.

Making a decision for food and beverage packaging requirements for traders, bars and caterers, requires an investigation into the waste processing facility choices. This will direct the optimal packaging choice and also direct on-site waste management systems.

Included in the decision are:

- What facilities are available?
- Is it possible to separate out biodegradable waste (food and food soiled biodegradable packaging) without contamination (plastic, metal, glass) at the event?

Disposable Food Packaging Includes

- Plates, bowls, burger boxes.
- Coffee cups.
- Beverage cups.
- Cutlery and stirrers.
- Serviettes/napkins.
- Condiment tubs.

Biodegradable food & beverage packaging includes items made from: paper, cardboard, bamboo, potato starch, wood (i.e., cutlery), sugar cane fibre, palm leaf, banana leaf and also biodegradable garbage bags. Ensure paper and cardboard items:

- Are not coated in plastic or foil.
- Ensure raw material is from sustainably grown forests.
- Have low ink content.
- Are unbleached.

Ensure biodegradable bags are **'bio'** degradable and not **'degradable plastic'**.

Give preference to products that are produced in Australia from materials sourced in Australia.

If you choose to use products made outside Australia, use those which have the dual benefits of using a waste material (bagasse, potato starch or palm leaf), and whose production benefits local communities.

Don't use

- Single serve sachets of salt, pepper, sugar, sauces, butter, condiments, milk. Use bulk dispensers instead.
- Plastic straws.



GUIDANCE: Independent Certifications Produce and Product Certification

The sustainability credentials of apparel and manufactured items and their supply chain are increasingly being moderated through eco-labeling and certification. This is the best way to ensure fair labour, fair trade, environmentally sound and toxin free production of the items you choose to put your name on.

WRAP (Worldwide Responsible Accredited Production)

An independent, non-profit organisation dedicated to the certification of lawful, humane and ethical manufacturing throughout the world. The Worldwide Responsible Accredited Production (WRAP) program is the world's largest facility certification program mainly focused on the apparel, footwear and sewn products sectors. The WRAP Principles are based on generally accepted international workplace standards, local laws and workplace regulations which encompass human resources management, health and safety, environmental practices, and legal compliance including import/export and customs compliance and security standards. www.wrapapparel.org



Fair Wear Foundation

FairWear's mission is to improve labour conditions in the garment industry. The Fair Wear Foundation (FWF) is an international verification initiative dedicated to enhancing workers' lives all over the world. Fair Wear works closely with a growing number of companies that produce clothing and other sewn products and that take responsibility for their supply chain. FWF keeps track of the improvements made by the companies it works with.



Oeko-Tex® Standard 100

This certification and garment label is a globally uniform testing and certification system for textile raw materials, intermediate and end products at all stages of production. **Oeko-Tex® Standard 1000** is a testing, auditing and certification system for environmentally-friendly production sites throughout the textile processing chain. www.oeko-tex.com



Clean Clothes Campaign

The Clean Clothes Campaign (CCC) takes action on specific issues related to unfair labour conditions. As workers producing clothes for brands and retailers around the world struggle to organise and improve their own conditions, so consumers, trade unionists and activists worldwide can join together to exert pressure at all levels of supply chains. The CCC brings together consumers, trade unions, campaign groups and other diverse organisations to do just that, calling on those with the power in global supply chains to take responsibility for workers' rights. www.cleanclothes.org



International Labour Organisation (ILO)

The ILO is devoted to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. Its main aims are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues. www.ilo.org



Global Organic Textile Standard

The Global Organic Textile Standard (GOTS) was developed through collaboration by leading standard setters with the aim to define world-wide recognised requirements that ensure organic status of textiles, from harvesting of the raw materials, through environmentally and socially responsible manufacturing up to labeling in order to provide credible assurance to the consumer. www.global-standard.org



Ethical Clothing Australia

Unfortunately 'Australian-made' does not always mean ethically-made. Ethical Clothing Australia's accreditation and labeling system helps consumers make an informed choice for ethical shopping. When you see the Ethical Clothing Australia trademark on a garment, it means everyone involved in its production received fair wages and worked in decent conditions. www.ethicalclothingaustralia.org.au





GUIDANCE: Independent Certifications Produce and Product Certification

Fair-trade

The **Fair-trade** label is a product label and initiative of Fair-trade Labeling Organisation International. Fair-trade works under the premise that the guarantee of a fair price paid creates opportunities for economically disadvantaged producers or those marginalised by the conventional trading system and empowers them to economic self-sufficiency, becoming stakeholders in their own enterprises. www.fairtrade.net



Good Environmental Choice Label

Is the only environmental labeling program in Australia which indicates the environmental performance of a product from a whole of product life perspective for consumer goods.



Australian Organic

Australian Certified Organic (ACO) is Australia's largest certifier for organic and biodynamic produce and has over 1500 operators within its certification system.



Rainforest Alliance

The Rainforest Alliance's unique approach comprehensively addresses the three pillars of sustainability: environmental protection, social equity and economic viability. More than two million farmers, farm workers and their families directly benefit from Rainforest Alliance certification. [Over 100 crops](#) can be certified according to the environmental and social standards of the [Sustainable Agriculture Network](#)



UTZ Certified

A worldwide certification program that sets the standard for responsible coffee production and sourcing. www.utzcertified.org



Marine Stewardship Council

The MSC's fishery certification program and seafood ecolabel recognise and reward sustainable fishing. We are a global organisation working with fisheries, seafood companies, scientists, conservation groups and the public to promote the best environmental choice in seafood. www.msc.org



Carbon Neutral

The Certification Trade Mark signifies that a particular organisation or product has achieved Carbon Neutrality against the National Carbon Offset Standard (NCOS).





GUIDANCE: Independent Certifications Printing Certification

One way to ensure the printing process utilised is the most responsible possible is to use a printing company which has independent certification.

ISO 14001 certified

ISO 14001 Environmental Management System is the first step to a measurable and validated environmentally- friendly print operation.



Sustainable Green Print

Sustainable Green Print (SGP) is the Australian printing industry's own recognisable certification program designed to help printing companies meet their environmental responsibilities and go above and beyond compliance. www.printnet.com.au



Paper & Timber Certification

Using paper with forest certification ensures the user that source forests are sustainably managed and harvested. Also chlorine free bleaching and low carbon.

Forest Stewardship Council (FSC)

Certificate scheme which ensures that the forests are managed in an environmentally and socially responsible way.



Program for the Endorsement of Forest Certification (PEFC)

The PEFC labels assist businesses, consumers, forest owners and managers, and other stakeholders to identify and promote merchandise and goods from forests that are managed sustainably.



Chlorine Free Products Association

Offers Totally Chlorine Free and Processed Chlorine Free certification for papers.
www.chlorinefreeproducts.org





GUIDANCE: Independent Certifications Hotel and Accommodation Certification

EarthCheck

EarthCheck is a web-based solution that is suitable for both large and small organizations. It provides the tools to track and measure resource use and waste output, enhance design and operational efficiencies, and encourage Corporate Social Responsibility (CSR).



NABERS – National Australian Built Environment Rating System

Is a national initiative managed by the Department of Environment and Climate Change and Water.



Eco-Friendly Star Accommodation

It's now simple and easy to find out if your accommodation property cares for the environment, thanks to Eco-Friendly STAR Accreditation. www.starratings.com.au



Green Building Council of Australia

GBCA is a national, not-for-profit organisation that is committed to developing a sustainable property industry for Australia by encouraging the adoption of green building practices.

Other Links:

www.textileexchange.org/

www.pvcfree.org/

www.foodstandards.gov.au/consumerinformation/bisphenolabpaandfood4945.cfm