



QUEENSCLIFF MUSIC FESTIVAL

Resource Recovery Report

B-Alternative

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B-Alternative Resource Recovery

Overview

ABOUT B-ALTERNATIVE

B-Alternative is an environmental solutions group helping businesses and individuals transition to lower impact operation and living. B-Alternative work within 3 core pillars: Event and business resource recovery/environmental consultancy, environmental education, and providing reusable, sustainable alternatives to single use items.

We have seen great success with our current business models. At NightJar Music Festival with 15,000 + punters per night, we were able to divert 85% of waste from landfill and compost 70-80% of this (see graphic below).

NIGHT JAR FESTIVAL TORQUAY Night 1 (Over 14,000-15,000 People)

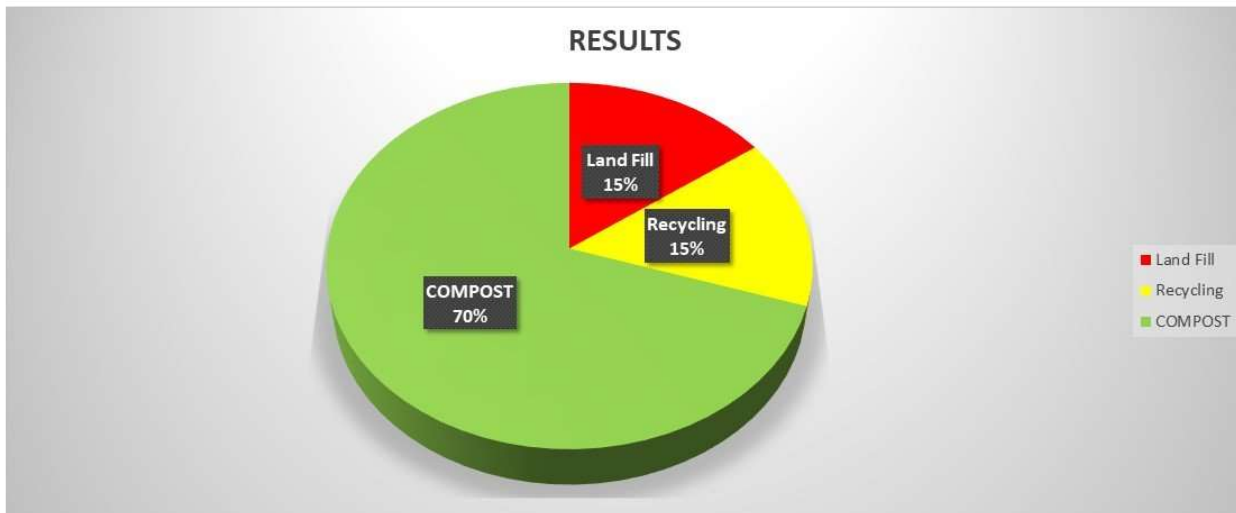


Figure 1. Results of resource recovery after NightJar Festival 2018. Percentages represent the quantity of waste (M^3) sent to 3 different resource recovery and waste streams.

AIM

We always set out expectations high - our target for Queenscliff Music Festival was 80% diversion from landfill. We utilise several models to assist us in achieving these results:

- Ensuring all vendors have only 100% compostable packaging
- Removing all single use plastics and turn them into furniture for the event to purchase back
- Supply reusable kits and alternatives for punters to utilise instead of single use packaging/dining ware
- Utilising bin staff to ensure there is no contamination at the point of rubbish disposal for punters
- Having back of house environmental consultants to ensure the decontamination crew are sorting waste into the correct streams

Results

Table 1. Weight (kg) of resources/waste sent to their specific handling streams, post Queenscliff Music Festival.

Resource/Waste Stream	Kg
Organics	1890
General	1000
Glass	800
Cardboard	745
Cans	300
Co-mingled	260

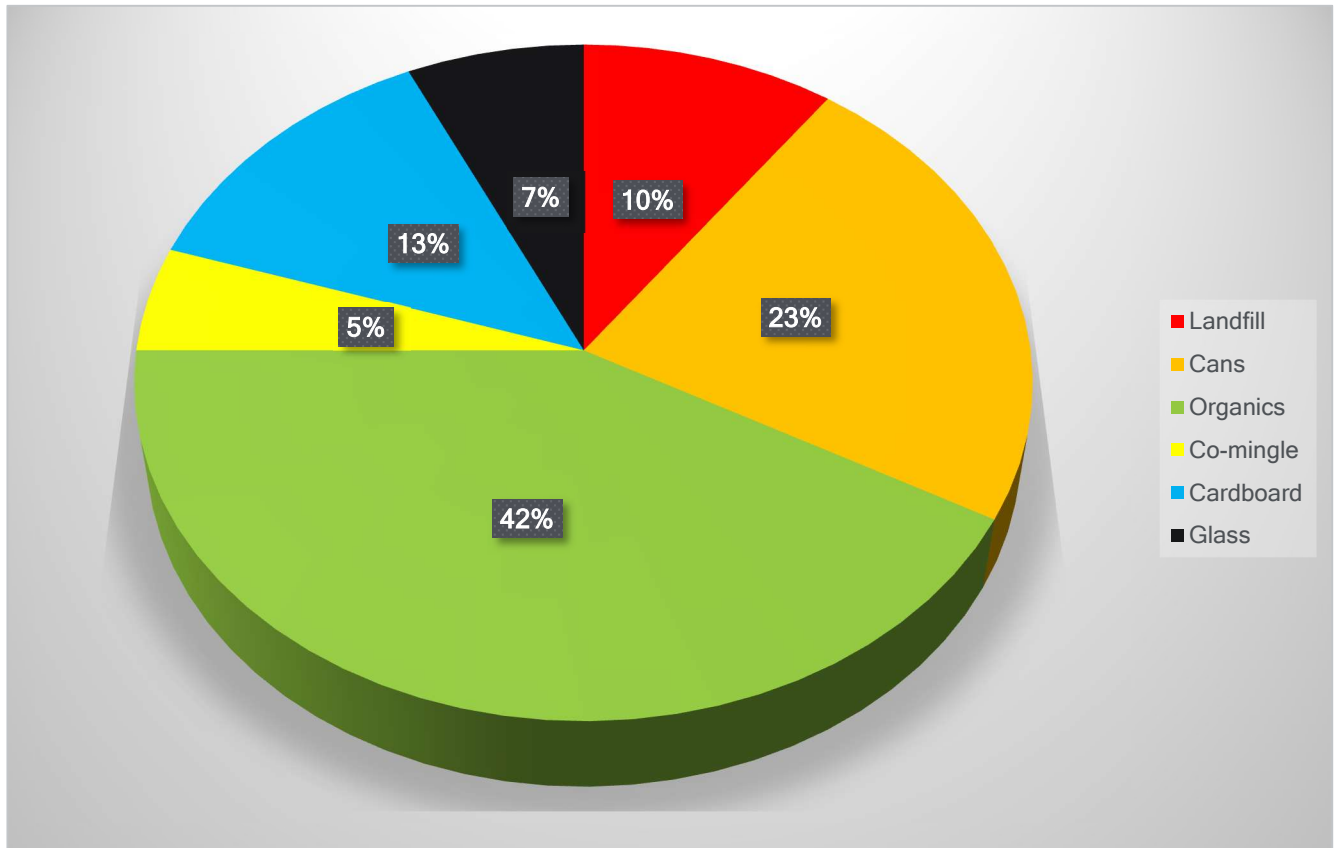


Figure 3. Detailed breakdown of the quantity (M³) of various resources sent to different recovery and waste streams, post Queenscliff Music Festival.

Discussion

Upon conclusion of Queenscliff Music Festival, we achieved 80% diversion of waste from landfill, meeting our goal. We were able to reach this goal through our various resource recovery models and ensuring we had 4 points of decontamination:

4 POINTS OF DECONTAMINATION

1. **Control the product stream into the festival** - By ensuring all vendors had purchased 100% commercially compostable packaging, we had reassurance that all take away items/dining ware from vendors could be placed in the green bin and sent away to be turned into high quality compost. This removes any confusion surrounding packaging that may not be compostable, and further ensures we will have most waste sent off to be composted.
2. **Bin station decontamination** - All bin stations at QMF were staffed by our 'bin fairies' who educated the punters on what bin their waste goes in, and decontaminated waste streams at the same time. Therefore, when bins were brought to back of house, they were 90-95% decontaminated.
3. **Back of house sorting** - With the help of Diversitat, we were able to further sort waste streams back of house, so there was no contamination upon tipping of bins into skips. It was imperative we had a consultant back of house to educate the sorters on what streams the various rubbish items went into, to avoid any contamination of waste streams.
4. **Final check from Waste Management Company: Corio Waste Management** conducted a final check and decontamination (if any) of the compost taken away. Feedback was (through video evidence), that our job of ensuring the compost wasn't contaminated was close to perfect, and thus all organics could be composted.

PLASTICS RESOURCE RECOVERY MODEL

All soft plastics to come out of QMF (also coffee cups and other plastics that can't be recycled) were able to be bailed up and taken away for free where they were melted down and molded into a building material. We were then able to build 3 park benches out of the plastic material, and sell these back to QMF. By utilising this model, all this plastic that was destined for landfill was turned into a resource that could be utilised by QMF punters in future years, demonstrating a closed loop system.

The **plastic to furniture model** is a viable option with landfill rates only increasing and plastic being a presence with bump in, general product unpacking etc. for any event. Other example of products we are able to construct include benches, retaining walls, seats, bump rails, or anything else that can be built out of planks.

Most hire companies have shown us to hire a bench can range from \$80 -120 per week plus delivery. We see that if we can turn a tonne of potential landfill plastic into a resource, we can save the event up to \$300 in land fill costs and provide them with a product from their own waste from \$250-600 (depending which items) to be used ongoing. Take a bench with seating for example:

Product X (standard park bench and table in one - see images below)

1 week hire of X product plus delivery = [(\$140+GST) + (Landfill charge of 500kg plastic: \$150+GST) + (Landfill transport: \$90+GST)] =\$380+GST + RISK of any damage and maintenance cost to hire company.

VS

Collection of soft plastic (free) + Cost of X product: \$550+GST delivered would be running at a profit after the second year in use.

If the event needs to buy more up front the free plastic service would still run at a tonne credit. Once the tonnes are up hopefully we are no longer using plastic or the event can purchase more products. It is important to emphasise that this model is used as a **transition model only**, and a greater focus is placed on removing plastics from events and festivals all together.



Image 1. ‘Park bench’ constructed from soft plastics, and other single use plastics that could not be recycled, from Queenscliff Music Festival.

POST EVENT OBSERVATIONS

At the end of the 3rd day prior to pack down, we estimated we had reached a 95% diversion from landfill. There were various reasons as to why our percentage of waste sent to landfill increased from 5% to 10% (M³) throughout the bump out period, and are specified below:

- Vendors not taking waste with them, in particular large metal drums still filled with oil. We didn’t have enough grey water and oil collection for the unexpected items. These will consequently add a lot of weight to the total weight sent to landfill (Table 1). There were also a lot of single use random items left by vendors that all had to be sent to landfill.
- The grass collected from the industrial vacuum post grounds clean up added extra weight to landfill. It is reassuring to know that it was just a lot of grass being sent to landfill and not plastic, but this still skewed our results. An incomplete post festival ‘emu bob’ grounds clean up meant that the vacuum had to pick up the microplastics and in turn add lots of extra weight to landfill in the form of grass

- There were some council bins that were mistakenly put in the QMF landfill skip, also adding additional weight to the landfill skip.

Improvements and recommendations

In order to achieve a more effective and efficient resource recovery model for QMF in years to come, the following changes need to be implemented after discussion:

VENDORS

- An agreement in the vendor contract must be enforced whereby all vendors must take away all possessions and waste they have remaining, after the clean-up crew have removed their waste for them. If this contract is broken, the vendor is to receive a fine. This should be the first step towards developing a 'leave no trace' policy, holding vendors accountable for their possessions and waste.
- It is advised a discussion surrounding the implementation of a rent-a-kit system is required for next year at QMF. This can be implemented by increasing ticket prices by e.g. \$15, and punters receive a reusable kit to use throughout the festival. Once used the kits can be dropped into a specific bin where they will be taken to back of house to be cleaned, and distributed again for further use. A simple digital banding system is utilised whereby punters receive a band, and when they drop off their reusable kit they scan their band. Upon exit if their digital band recognises they have returned their kit, \$10 will be loaded back onto their band. If they choose to take the kit home, the \$15 deposit will be withheld. This will save the event tens of thousands in skip hire, labour in back of house decontamination, general grounds labour in cleaning, bin removal and staffing. Additionally, B-Alternative can provide the reusable products and look to share a profit from the system with the event (TBD).
- A convenience charge system should be implemented alongside the rent-a-kit system, whereby people who chose to buy their food in take away packaging are charged a 'packaging tax'. This will help vendors cover any extra cost from purchasing compostable packaging before the event.

CLEAN UP

- A more structured and coordinated post festival grounds clean up needs to be implemented, with clean-up crew who are educated on what waste goes in each stream. This will eliminate hours of time sorting and decontaminating bins post festival. This can easily be implemented by coordinating all clean-up crew under B-Alternative management.

CHANGE OF PRODUCT

- We can reduce/remove glass from QMF by using wine barrels instead of bottles. This will save a lot of time sorting, transporting, and tipping the glass, and therefore save a lot of money. In addition, costs can be saved on electricity used to keep the wine cool in fridges, and also on labor to stock fridges.

TALENT

- We made a conscious effort to spend some time with the talent to share our 'Party With The Planet, Not Against It!' message, which was also supported by the QMF talent managers. However due to our lack of signage and support we were unable to get the message from the talent to the punters. We could improve in that area by implementing small signs on stage with the message on the ground for them to see and be reminded of.

PUNTER FEEDBACK

General responses from locals and patrons suggested that the festival grounds and town were the cleanest they had seen in the year QMF had been running. Punters really appreciated having bin fairies educate them on where their waste goes, as well as the discussions had surrounding environmental issues.

Conclusion

Overall, the B-Alternative team thoroughly enjoyed working with QMF to go above their expectation of 50% diversion from landfill. All QMF staff were a pleasure to work with, and should be applauded for their management efforts. QMF will now be a benchmark in terms of environmental sustainability and resource recovery.

We see the progressive thinking and long-term prospects for a regenerative lifestyle in the event world with these models always evolving. The management from Chris Longmore has been very welcomed and required as he and his team have been able to support with answers and suggestions wherever required. QMF and other events should continue to aspire to reach zero waste and becoming completely reusable. B-Alternative have proved this type of model to be financially beneficial, and a lot more environmentally sustainable than models where single use packaging is distributed. B-Alternative will make this transition for all festivals and events easy, financially viable, and most importantly an enjoyable experience.