

# CREATING COMPOST AT CHRISTCHURCH EVENTS: **OUR 2017 SUMMERTIMES COMPOSTABLE TRIAL**



*I'm recyclable!*



## THE DILEMMA

### Why compost at an event?

Imagine the volume of waste that is generated at every single event held in our city and sent to landfill - daunting isn't it! Previously, this is just what would happen following every event produced by the Christchurch City Council's Events Production Team, as well as numerous other externally produced events which take place in Christchurch every year. The environmental impact of this was no doubt substantial and there was a need for change to take place. As a majority of the event waste was made up of food and disposable packaging it was the team's belief that such waste could be diverted away from landfill and into other waste streams, namely composting. From here **Our 2017 SummerTimes Compostable Trial** was developed as part of a larger Events Sustainability Framework.



Through the implementation of the compostable trial Christchurch City Council has the potential to become a leader in sustainable event and urban policy. It also gives us an opportunity to show that a Council-initiative like this can result in the strengthening of relationships between communities and small local businesses.

The trial was the first of its kind to take place in the city which saw a large portion of its waste diverted from landfill to compost - a significant accomplishment for our city. Following the development of the trial it is hoped that other councils from around the country will follow suit and join us in delivering more sustainable events.

## BARRIERS TO SUCCESS

### What is PLA?

Most disposable food packaging in the market which is labelled as “compostable” often has a thin lining, which acts as waterproof coating and is made of a material known as “bioplastic”. One particular bioplastic commonly used and made from corn starch is called PLA (poly-lactide acid). Although PLA bioplastics are certified as commercially compostable to multiple international standards, there are still issues with composting them in facilities which produce certified organic compost in New Zealand called “BioGro” certified facilities. PLA bioplastic lacks the ability to attain the local BioGro certification that is required by the commercial composting facility in Christchurch, Living Earth. This was a major hurdle for event organisers to overcome when it comes to waste management at events. Living Earth does not accept any disposable food packaging into its organic waste stream in order to avoid contamination of their high-grade compost. With this predicament the team had to put on their thinking caps. Surprisingly, the answer lies in the common pizza box!



As pizza boxes are made from cardboard without any bioplastic lining, Living Earth accept them into their residential organic kerbside collections. Our challenge was to find a range of disposable food packaging made from just cardboard, without any bioplastic linings. This was our opening to get disposable food packaging from our events accepted into the organics waste stream at Living Earth.

## TRIAL 1.0

Where and when



The trial took place across three large public events in February 2017. The three events included two Council-produced public events (Sparks and Christchurch Lantern Festival) and one partnership trial event with Fairfax Media (Christchurch Night Noodle Markets). The trial itself is an initiative designed by the Council's Events Production Team and is part of the Event Sustainability Framework, a five-year plan which aims to look at all events of event sustainability not just waste. The three events had an estimated 190,000 attendees between them.



**65,000**  
attendees



**34,000**  
attendees



**90,000**  
attendees

## THE REASONING

### Why trial and who benefits?

Events are a great opportunity for a closed testing ground. The main objective of the trial was to reduce the amount of landfill and divert this waste to compost and recycling waste streams instead. The current goal is 80 per cent diversion from landfill. The trial was used to test the viability of such a waste management protocol, from an environmental and economical sustainability perspective.

First and foremost, the project was developed to benefit the environment. An additional benefit of the trial has been the opportunity to educate food vendors, local businesses, event attendees, as well as the Event Production Team within the Council. An element which supported this education and raised awareness of the trial was the incorporation of sustainability education tents at the events which really drove home the key messages about the trial as well as general sustainability information.

A secondary objective was to analyse event attendees, food vendors and other stakeholder response of the initiative. There was a level of education required by the food vendors in order for the trial to be successful. There was also an interest in collaboration with The University of Canterbury to research the perception and behavioural changes of event attendees brought about by the trial.



Example of signage used to promote the trial on social media and throughout event venues.

## PLANNING FOR THE TRIAL

### Sourcing products and branding



Event Compostable Only logo created for compostable packaging for the trial.

Planning for the trial began more than a year before the events. The first task was to find bioplastic-free disposable food packaging that was suitable for the trial. Once options were sourced, this packaging was reviewed by Living Earth for its suitability and tested against pizza boxes in the composting process. After successful testing was complete and suitable products confirmed with Auckland based company Ecoware, an 'Event Compostable Only' logo was designed to be printed onto the products. The logo acted as a visual aid so that the correct packaging would be easily identified by event staff and Living Earth. This logo also helped visitors identify that this could only be composted at the event and not in residential curbside collections at home.



## EDUCATING FOOD VENDORS

### Collaborative approach



For the trial to be successful, it was imperative that the 100 or so food vendors involved were engaged with and supportive of the trial. It was important to make sure that vendors participated in the trial from the planning phase. A three hour workshop and several meetings were held with food vendors to gain insight into what they required, to introduce the concept and showcase the exclusive products they had to use at the events.

If other products were used this would cause contamination and skips would be rejected by Living Earth. This meant buy-in from food vendors was critical in the trial's success. For many food vendors this was a completely new concept so support was given to guide them through this transition.



## FOOD PACKAGING SUPPLIERS

### Where to buy it from?

The food packaging was sourced from Ecoware, New Zealand's only carboNZero certified packaging company. As it was essential for us to consider the local economic sustainability of this trial, four local suppliers who currently supply products to the food vendors were used to distribute the approved 'ECO' disposable food packaging from Ecoware.



## THE ELEPHANT IN THE ROOM

### The coffee cup

There was still one major problem – we could not use cardboard-only materials for some products, namely coffee cups. There is always going to be a need for some sort of lining for certain types of food packaging, and whilst PLA cannot currently be BioGro certified and therefore cannot go to BioGro certified facilities like Living Earth, it can be composted at non-BioGro certified facilities, and this is where Cultivate Waste stepped in.



Cultivate Waste, a division of local Christchurch social enterprise Cultivate Christchurch, was willing to take all PLA products and do their own smaller PLA composting trial. This new development meant that the PLA would have to be separated from the cardboard packaging. This posed its own problem – who was going to do the sorting?



# SORTING THE WASTE

## Piece by piece



A waste team was required to sort each individual piece of rubbish and ensure minimal contamination in the recycling and compost skips. Our Daily Waste was contracted to carry out this process for the two Council-produced events: Sparks and Christchurch Lantern Festival. Closed Loop, a North Island Waste Management company, was contracted to do the same for the externally produced Night Noodle Markets. These sorting teams continuously patrolled each event site changing bins, picking up litter and then hand-sorting the waste into the different waste streams.



## STAFFING BINS



In order to minimise the amount of contamination in the bins and make the sorting as easy as possible, each set of bins was staffed with a volunteer. These volunteers were known as our Green Team and guided the public to the correct bin for their waste. This also helped the public understand the trial and take ownership for their own rubbish.

## FOOD VENDORS

### Auditing products on site



It was vital that the food vendors only used the approved packaging. This included every product that would be given out to the public over the counter – straws, bags and even sugar sachets. This meant staff were required to constantly check that food vendors had the correct packaging. On average staff members audited each stall at least twice a day for each event. There was a van of “back-up stock” on site for last-minute sales if food vendors arrived without the approved packaging. If food vendors failed to have the approved food packaging they were not permitted to trade at the event.



## COUNCIL'S INVOLVEMENT

### Risks of the trial

The trial was a Christchurch City Council-led initiative headed by the Events Production Team. This required the team to pull resources together internally and externally, working with the local community to ensure support for the initiative.



A risk to the success of the trial was contamination of compostable organic skips. As this was the very first time in Christchurch that a commercial composting facility would accept organics event waste and disposable food packaging, it was imperative that we kept this contamination to a minimum. If skips were to be rejected this could be evaluated as the initiative failing, and the entire idea of composting food packaging in Christchurch could be reconsidered.

There was a substantial financial risk in over-ordering disposable food packaging (for approximately 200,000 attendees) without exact numbers of what was needed. Similarly if stock had been under-ordered, there may not have been enough to run all three events. To mitigate this a backup supply of unbranded stock was held in a Christchurch facility should we run out.

Timing was also a major risk – 15 weeks' turnover was needed to receive the stock. It arrived in Christchurch just one week before the events started, then had to be transported to distributors, and then to the vendors who had pre-ordered their stock.

For the Council there was a reputational risk associated with the trial. The general public and the food vendors themselves may have rejected the trial. This was mitigated with social media communications, sustainability information tents at events, focus groups, meetings, individual support, signage and workshops with food vendors and event staff.

## NIGHT NOODLE MARKETS

The Fairfax Media team made great progress diverting a total of 61 per cent of their waste away from landfill. As this was a five-day event, they had a large amount of organics and food packaging that could be sent to compost. The PLA used at the Christchurch Night Noodle Markets was not diverted and was sent to landfill. This was primarily due to the extra organisation and sorting time required for waste sorters to separate the PLA from the landfill stream and into its own skip. Fairfax Media also had a different organisation contracted to do waste sorting. Aside from this, all three events followed the same procedures and regulations.

### POINTS TO CONSIDER FOR NIGHT NOODLE MARKETS TO IMPROVE DIVERSION RATES FOR 2018:



Hand-sort  
landfill  
waste  
stream to  
improve  
diversion  
rates  
further



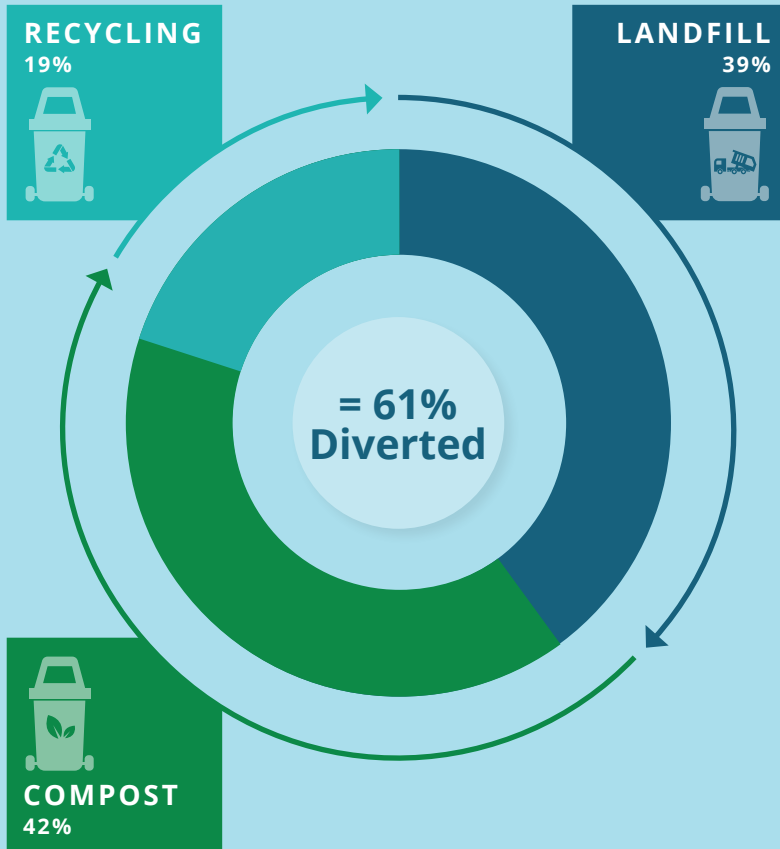
Separate  
PLA  
bioplastics  
and divert  
from  
landfill  
waste  
stream

Manage the food vendors' back-of-house waste and encourage food vendors to sort their own waste into the individual waste streams



# NIGHT NOODLE MARKETS 2017

## Waste proportions



## SPARKS

Last year Sparks 2016 contracted waste sorters on site (as part of our baseline data) without having the compostable waste stream or the approved disposable food packaging. In 2016, Sparks diverted 51 per cent of its waste from landfill to recycling waste streams. This year with the new system Sparks diverted 75 per cent of its total waste away from landfill. This was just five per cent away from our 80 per cent diversion goal. By making a few changes, we are confident that we can achieve this goal in 2018. One of the challenges is to create sustainable messaging around picnic waste, as our diversion rates for Sparks are inhibited by the high volume of public picnic waste brought into the event.

### POINTS TO CONSIDER FOR SPARKS TO IMPROVE DIVERSION RATES FOR 2018:

Manage and divert back-of-house waste



Manage waste from sponsor tents and the food packaging used in these tents



Encourage the public to take picnic waste home or use recyclable/compostable packaging



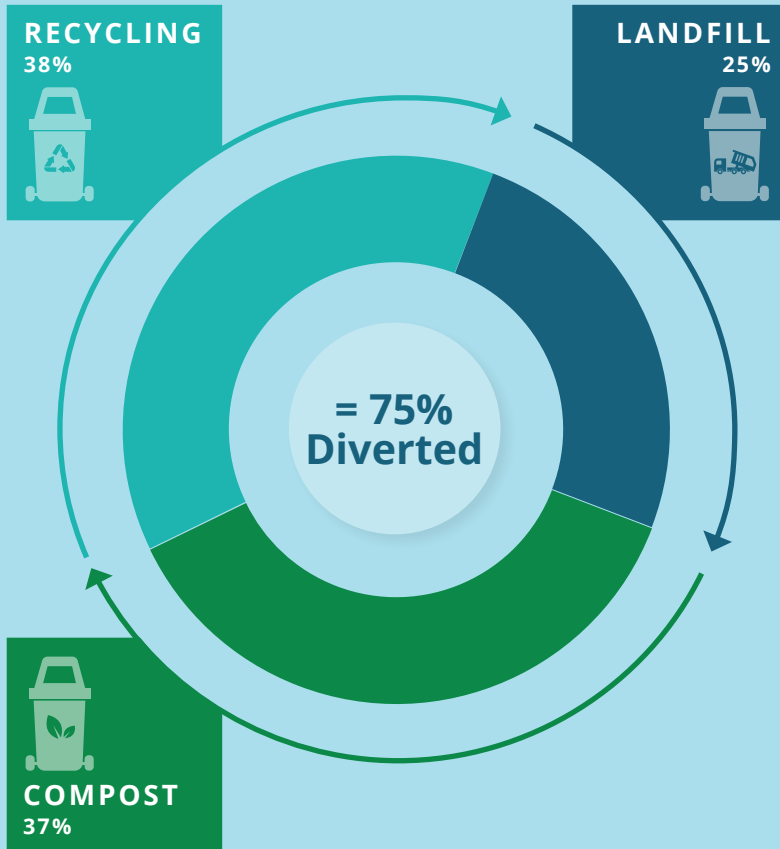
Collect used oil from food vendors to be recycled into biofuel

Manage the food vendors' back-of-house waste and encourage food vendors to sort their own waste and choose more sustainable products



# SPARKS

## Waste proportions



## CHRISTCHURCH LANTERN FESTIVAL

Due to weather conditions, the first day of this festival was cancelled. To help food vendors make up for lost trading time, the event opened four hours earlier the following day. Although this helped, the cancellation of the first day still affected the overall attendee count and diversion rates of the festival. In total the Christchurch Lantern Festival achieved 58 per cent diversion away from landfill. In 2016 the festival achieved just 22 per cent diversion with waste sorters on site. Overall, the 36 per cent increase in waste diversion from landfill 2016 to 2017 has been a significant achievement.

### POINTS TO CONSIDER FOR CHRISTCHURCH LANTERN FESTIVAL TO IMPROVE DIVERSION RATES FOR 2018:

Manage and sort back-of-house waste from the event



Find alternative products for technician teams to use i.e. cable ties, tape etc



Manage lantern transport packaging and find a solution to recycle it



A two-day event next year should increase diversion rates

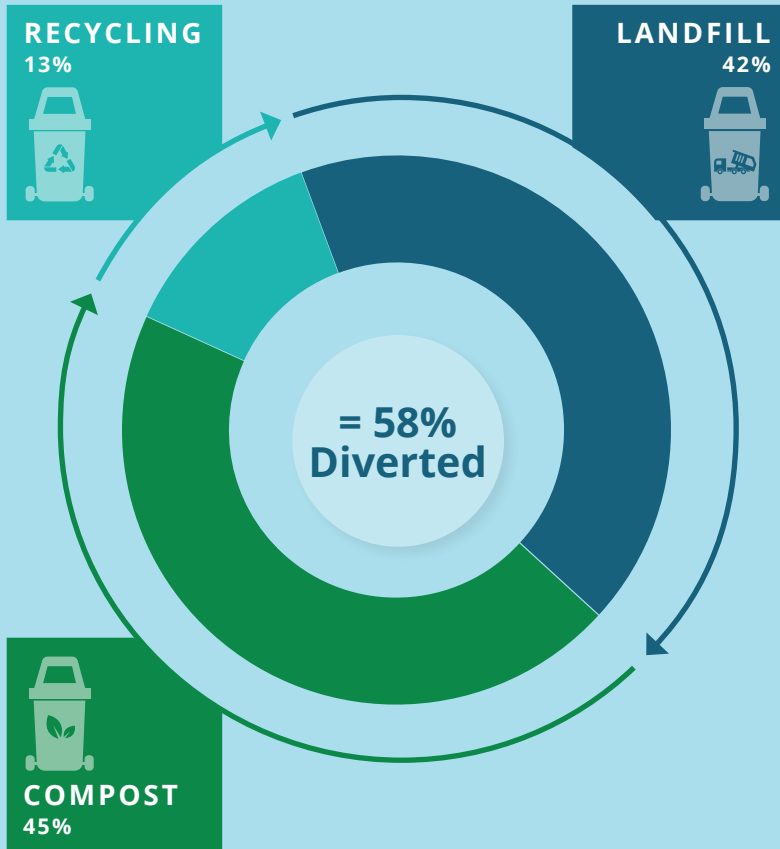
Continue to develop the food vendors' back-of-house rubbish sorting into individual waste streams and further support this





# CHRISTCHURCH LANTERN FESTIVAL

## Waste proportions



# WHAT THE PUBLIC THOUGHT

## Christchurch Lantern Festival and Sparks

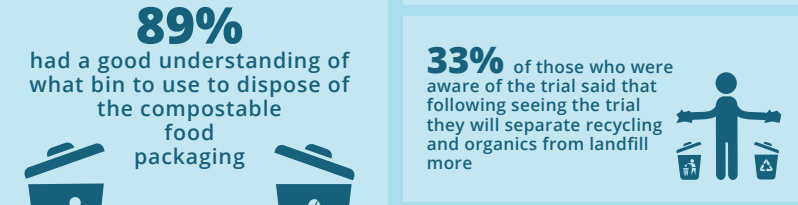
From those who filled out the attendee survey...



**50%** noticed waste education



**75%** noticed the compostable containers, cups and cutlery



Data collected and analysed by



# THE FEEDBACK

## What the teams involved thought

From those who filled out the stakeholder survey...



72% of teams involved felt positive towards the changes

97% indicated that sustainability is an important concept to them **PERSONALLY**



97% indicated that sustainability is important to their **BUSINESS**

How important is it to see environmentally sustainable initiatives at their events?



64% rated the actual compostable packaging as good



Teams involved rating of the overall success of the trial

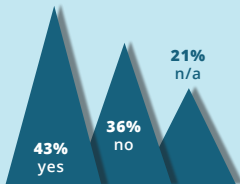
47% very successful

25% quite successful

21% neither

7% very unsuccessful

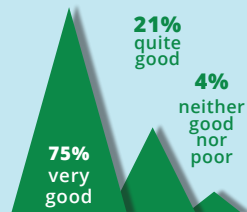
Did the trial influence teams involved to change their waste management protocol within their business in any way?



54% indicated their involvement in the trial inspired them to separate their waste more



Teams involved level of understanding of waste management initiative at events



How teams involved rated the cost of the packaging in comparison to the products previously used before the trial

39% very expensive

14% more expensive

36% n/a

11% comparable



Research collaboration with



THE START  
OF OUR  
JOURNEY

packaging made from  
**plants**  
not oil



**Plants**

made from  
certified  
renewable  
resources



**Manufacturer**

This company's PLA produces  
**80%**  
less carbon emissions than  
traditional oil-based packaging



**Compost  
facility**

Compost  
used by  
farmers  
and local  
gardeners

FULL CI  
APPRO

Compost generated  
to go back into our  
**environment**



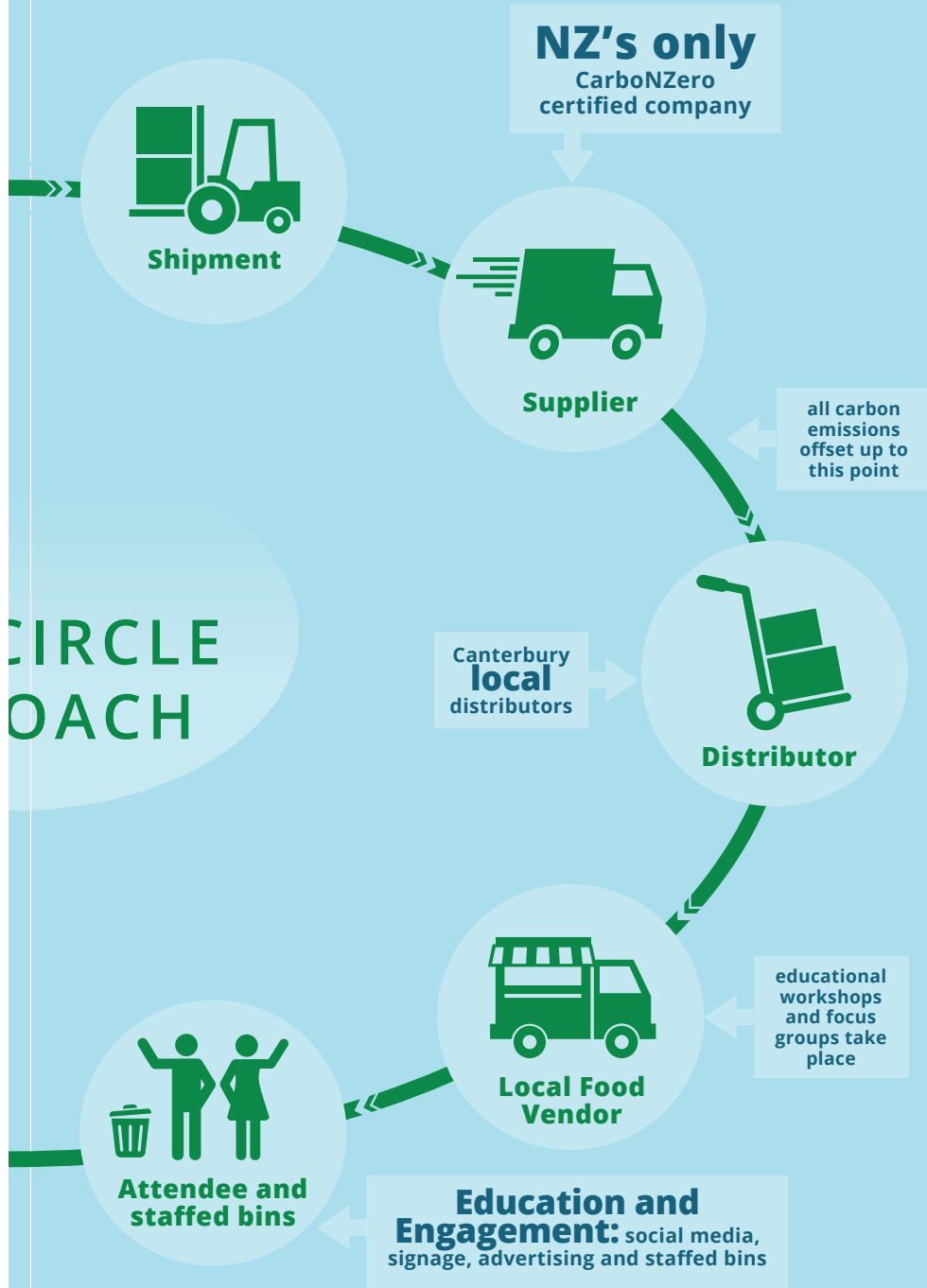
**Transportation**

**Social enterprise**  
hand-sorts waste



**Bin sorting**

# CIRCLE COACH



## TO SUMMARISE

It's a wrap for now

The composting trial has been part of a wider Event Sustainability Framework, which is a five-year plan. However, this particular initiative required 12 months of research and planning before the events.

This initiative has provided many learnings for Christchurch City Council. Coordinating composting packaging over several events with the aim to establish a protocol that could work for all regions takes a significant amount of resource, time and financial support.

This is a journey not just for the Council but for our community and city. There's a long way to go, but every day we are getting closer to our goal of delivering zero-waste events and extending these ideas city and nationwide with other councils following our lead.

In total  
**61%** diversion of  
waste away from landfill



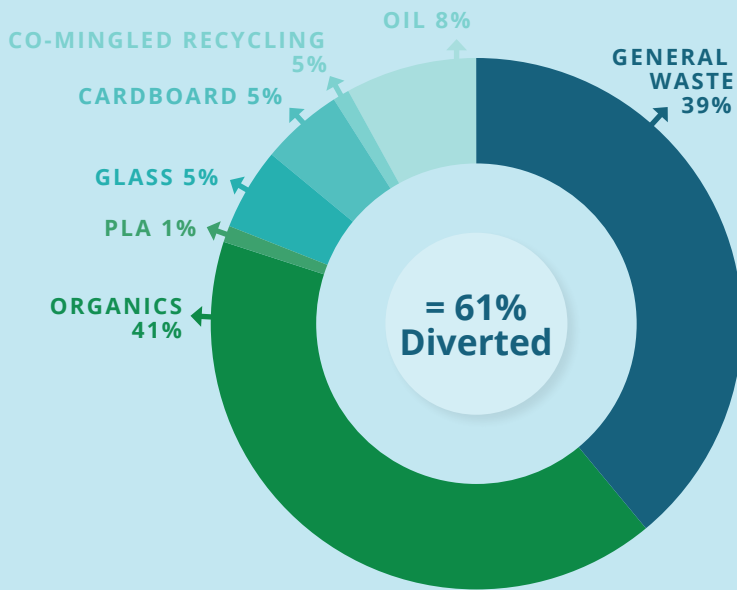
That's  
**= Over 12**  
**tonnes** diverted

We're getting closer to our **GOAL** of

**80%** diversion away from landfill and making  
**ZERO WASTE EVENTS** standard practice in Christchurch



## Overall results for Trial 1.0 EPT CCC Composting Trial



## THE NEXT STEP

### Trial 2.0

With Trial 1.0 under our belts, it's time to up the ante. We're in the process of setting up a second set of trials to run over an 18-month period, with the potential for more than 30 medium to large events to be included. The opportunity for an 18-month trial means we can establish an ongoing stock of multiple product suppliers within the city and iron out some of the issues we had with Trial 1.0. These events would include Council-produced events as well as externally-produced events from event providers who are currently sustainably driven.

# GET TO KNOW THE TEAMS INVOLVED

## We are working together

### CCC Events Production Team

[www.ccc.govt.nz](http://www.ccc.govt.nz)

We, the Christchurch City Council - Events Production Team are passionate about everything events, who are enlisted with producing events for the people of Christchurch and our city's visitors. Our events are free to the public and we deliver a varied calendar of events which has something for everybody.

Individually we are driven by improving our sustainability and we've now brought this ethos into our work to improve how we deliver our events. We love bringing these events to life, however felt we could make positive change by making our events more sustainable and minimising the effect they have on the natural environment.

We're busy working through our Event Sustainability Framework to achieve these goals which the trial is part of... watch this space!



### Living Earth

[www.livingearth.co.nz](http://www.livingearth.co.nz)

Living earth was established over 20 years ago to recycle organic waste into rich, high quality compost. Living earth is passionate about recycling, composting and gardening. In fact we've composted over 1.2 million tonnes of organic waste which would otherwise have been disposed of to landfills.

Living Earth's values align to modern social expectations of living sustainably and with minimal environmental footprint. We have worked to build a reputation based on principles of environmental and community responsibility.

With large scale composting operations in Christchurch and Auckland, Living Earth have developed proven expertise in composting garden waste and food waste and the Living Earth brand has become a by-word for high quality compost.





## Ecoware

[www.ecoware.co.nz](http://www.ecoware.co.nz)



At Ecoware, we provide plant-based food packaging solutions that are superior in quality, at an affordable price. We strive to lead the way when it comes to sustainability; that's why we're New Zealand's only carboNZero certified packaging company. Traditional food packaging is derived from oil, one of the world's most scarce and non-renewable resources, whereas Ecoware products are made entirely from plants and are annually renewable. We help organisations transition from oil-based food packaging to sustainable plant-based packaging and offer our services to help with the whole process from design to disposal. With the right partners and products, you can make a real difference.

## Our Daily Waste

[www.ourdailwaste.co.nz](http://www.ourdailwaste.co.nz)



Our Daily Waste is a local waste prevention consultancy that specialises in providing event recycling systems, with more than 60 Canterbury events having benefitted from our services. Because most event recycling is too contaminated and is sent to landfill, our policy is to hand-sort all waste, with the guarantee that it will be accepted at the recycling plant. At Sparks and the Christchurch Lantern Festival, we adapted our system to ensure that the organics stream only included the approved compostable items, and we hope to further contribute to the trial at future events. In addition to events, ODW also supplies waste reduction advice and customised recycling signage to schools and businesses.

## Cultivate Waste

[www.facebook.com/cultivatewaste](http://www.facebook.com/cultivatewaste)



Cultivate Christchurch is an award-winning social enterprise taking our local food system to the next level. Cultivate's team consists of young people, members of the community and skilled employees who work together to produce quality food that is supplied to restaurants as well as feed the people involved. Everything Cultivate does is a collaboration, be it with nature, young people, local communities or businesses. Cultivate Waste is the division of Cultivate that solves the problem of no organic bin collection in the Christchurch CBD. Using an electric bike and a trailer we collect food waste and commercially compostable packaging and process it on Cultivate's urban farms.

## Closed Loop

[www.closedloop.com.au](http://www.closedloop.com.au)

Based in New Zealand, Australia and the United Kingdom, Closed Loop has more than 15 years' experience providing comprehensive environmental solutions across aviation, hospitality and health, catering, events, venues, cleaning and recycling management.



We achieve this through expertise in integrated disciplines including: recyclable packaging; bespoke or off the shelf, waste auditing, resource management, organics recycling, education and production of training videos to share our clients' environmental stories, cleaning, facilities management and waste infrastructure, consultancy and resource recovery and communication campaigns that engage both internal and external stakeholders. Sustainability defines who we are and what we do. And we love what we do!

## EnviroWaste

[www.envirowaste.co.nz](http://www.envirowaste.co.nz)

Through our integrated, national network of branches, facilities and joint ventures, EnviroWaste has the capability to manage for our commercial and private account customers, the progression of waste through each phase of the waste stream. Our services include collection, recovery, waste minimisation, resource recovery, recycling, disposal (landfill design, operation and aftercare), environmental remediation and also composting. We also provide services in disposal and capturing landfill methane gas to generate electricity for the national grid. Whether it's turning landfill gas to power, organic waste to compost or returning our beaches to pristine condition, we believe in rolling our sleeves up and doing what it takes to keep New Zealand beautiful.



## Fair fax media

[www.fairfaxmedia.co.nz](http://www.fairfaxmedia.co.nz)

Fairfax Media NZ is committed to operating an environmentally responsible and sustainable business. A focus on reducing waste is reflected in Fairfax's use of recycling materials in the printing of its newspapers, and its modern offices are setup to reduce printing requirements and support recycling to reduce general waste volumes. Fairfax performs a vital role in educating, informing and raising awareness in the community about important sustainability and environmental issues. Its journalism fosters greater understanding and community awareness of environmental and sustainability concerns. Sustainable practices are also prioritised in Fairfax Events such as Central Districts Field Days, Round the Bays and Summer Starter fun runs.



“

Hi,

*We visited the marquee for the recycling etc..... brilliant, we were impressed with the person whom we spoke too at the marquee and the information we were given, we were not aware of this being a trial before were went to the marquee...*

*We were impressed with the containers and the cutlery used at this event.*

*We were impressed with the staff at the bins who were helping people to choose where to deposit their rubbish. I personally think without them being there then people would just put their rubbish into any holes/container...*

*We were impressed with the people who were going around collecting rubbish that had “accidentally fallen onto the ground” (we did see someone who dropped rubbish and could not be bothered to pick it up but then a member of staff soon came within 5 to 10 minutes and picked it up) excellent, there was just about no rubbish on the ground - Well done to all the staff, we noticed, commented to each other and were impressed.*

*We were impressed with the CHCH council doing this recycling & promoting etc....*

*We were impressed with the food stands cooperating.*

*Well done to everyone involved - brilliant.*

*Just need other councils to follow the excellent example.*

*Kind regards*

*Martin & Lynette, visitors to CHCH Lantern Festival, would love to come back again.*



”



The team involved from trial 1.0. Representatives from Christchurch City Council Events Production Team, Living Earth, Our Daily Waste, Ecoware and the University of Canterbury student intern.

*The Christchurch City Council would like to thank these organisations and everyone else who has been involved with the trial.*

*If you have any questions about the trial or would like to be involved in future trials please contact Shanti Campbell at [shanti.campbell@ccc.govt.nz](mailto:shanti.campbell@ccc.govt.nz) or Kat Ralph-Triebels at [kathryn.ralph-triebels@ccc.govt.nz](mailto:kathryn.ralph-triebels@ccc.govt.nz)*



**FSC™ Certified 100% Recycled Pulp**  
**Made on Recycled paper, please recycle after use.**