

# WAITANGI DAY – Okahu Bay 2009 'ZERO WASTE' CASE STUDY



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- FriendlyPak
- Auckland City
- Michelle Dawson and her worms
- Photos courtesy of Jo Knight and Ngarimu Blair



## 1. INTRODUCTION

This report reviews the 2<sup>nd</sup> attempted 'zero waste' strategy employed by Ngati Whatua o Orakei (NWoO) at our Waitangi day event at Okahu Bay in 2009. This case study is written to provide other groups who may wish to attempt a 'no-waste', 'zero-waste', 'resource recovery' event with a description of the experiences of NWoO and a list of recommendations to assist others in their own event planning.

## 2. EVENT DESCRIPTION

NWoO hosted a free public Waitangi Day festival at Okahu Bay on February 6, 2009 in partnership with the Auckland City Council. Crowd estimates were 25,000 people throughout the venue over the day. The festival began at 9am with a formal powhiri. There was also a main stage that played live music from 10.30am to 6pm. There were also 100 stalls with 50% of those being food stalls and merchandising being the balance. The 2 main event areas were located on Okahu Park. This year Tamaki Drive was closed for the entire day. Okahu Beach also attracted thousands of people particularly at full tide in the early afternoon. 3 ticketed car-parks were located at the Watene Reserve, the sports fields and on the papakainga land overlooking the park. The 4 key areas of the festival requiring Resource Recovery (RR) therefore were;

- i. Okahu Park
- ii. Okahu Beach
- iii. Sportsfield car park
- iv. Watene car park



Event Map

### 3. RESOURCE RECOVERY RESULTS

While Zero Waste was not achieved the following results were;

#### 2009 Waste Stats

Waste Stream	Weight kg	Weight tonne	% of Total waste stream
Landfill skip at back-end	550kg	0.55t	10%
<b>Total Landfil</b>	<b>550kg</b>	<b>0.55t</b>	<b>10%</b>
Compost – Worm farm	2,600kg	2.6t	45%
Recycled glass, plastics and cardboard	2,600kg	2.6t	45%
<b>Total recycled/composted</b>	<b>5,200kg</b>	<b>5.2t</b>	<b>90%</b>
<b>TOTALS</b>	<b>5,750kg</b>	<b>5.75t</b>	<b>100%</b>

#### 2009 Carbon Emissions Stats

We avoided emissions (i.e. the quantity of greenhouse gas (GHG) saved from being emitted to the atmosphere was 4920kg CO<sub>2</sub>e. Waste stream event emissions were reduced by 86%. This is equivalent to;

- the annual GHG emissions from 3 cows;
- the annual GHG emissions from 20 sheep;
- 3 air flights from Auckland to London;
- 17 air flights from Auckland to Sydney;
- 63 air flights from Auckland to Wellington;
- 41 car journeys from Auckland to Wellington.

#### 2008 Waste Stats

Waste Stream	Weight kg	Weight tonne	% of Total waste stream
Landfill skip at back-end	660kg	0.66t	10.6%
Landfill from contaminated recyclables	640kg	0.64t	10.4%
<b>Total Landfil</b>	<b>1,300kg</b>	<b>1.3t</b>	<b>21%</b>
Compost – Worm farm	1,400kg	1.4t	22.6%
Recycled glass and plastics	3,000kg	3.0t	48.4%
Cardboard	500kg	0.5t	8%
<b>Total recycled/composted</b>	<b>4,900kg</b>	<b>4.9t</b>	<b>79%</b>
<b>TOTALS</b>	<b>6,200kg</b>	<b>6.2t</b>	<b>100%</b>





The waste strategy employed by NWO involved the following;

- Employing 4 contracted staff for the day.
- Seeking advice from the Zero Waste Trust who also performed an audit;
- Ensuring stallholders used **compostable** packaging (not bio-degradable) including taking a \$200 bond from them.
- Developing a communications strategy to prepare event visitors to adopt a 'pack-in - pack-out' attitude.
- Strong enforcement of a liquor ban.
- Developing a volunteer engagement and training strategy.

#### 4. RESOURCE RECOVERY STATIONS (RRS)

The RRS was composed of;

- X2 volunteers/kaimahi using a buddy system
- x1 BLUE bin lined with plastic bag for assorted plastics/glass
- x1 GREEN bin lined with bio-film bag for organic.
- KNZB plastic bags for landfill rubbish.



Stallholders were asked to bring their sorted waste to the central waste station. In very rare occasions did this happen. While the majority of stallholders complied and recognised the value in being a zero-waste event – some did not and attempted to 'play-dumb' or simply refused to use compostable products or sort their waste leaving it for our volunteers to pick through their mixed up rubbish bags. That said 2009 saw almost twice the amount of organic waste collected indicating that almost all stall-holders used compostable packaging compared to the previous year.

#### 5. EVENT-DAY WASTE STRATEGY

The event-day strategy was composed of 2 parts being the 'Front-end' and the 'Back-end'.

##### 5.1 **Front-end**

The front-end had 25 RRSs manned by 2 volunteers who would educate the general public and ensure the waste would be separated correctly at-source. This would then reduce the sorting demands at the back-end. It

would also proactively raise the environmental awareness of the event-goer. A buddy system was implemented ensuring volunteers had ample time for breaks and to enjoy the festival. This year we almost halved the number of stations and this proved successful. It is also important to note that all permanent park bins were removed so they could not be used.

## **5.2 Back-end**

1. Contractor gantry bin for co-mingled and cardboard;
2. Contractor gantry bin for organic
3. Contractor gantry bin for landfill waste
4. Sorting table
5. Canteen.
6. PotatoPak
7. 4 Contracted staff
8. 1 4-wheel bike and an ATV



**Volunteers collecting their waste stations in the morning**

## **5.3 Stallholder Officer**

A stallholder officer was appointed checking compliance with zero waste rules and identifying those stalls who would lose their \$200 bond. The officer also directed non-complying stalls to PotatoPak to purchase the required product.

## **5.4 Volunteer Welfare**

This year we reduced the number of stations in order to 'buddy' the volunteers. This was a success ensuring a reduced workload without increasing loose litter at the event.

## **5.5 Volunteer Training and 'Impassioning'**

The volunteer training, impassioning and hosting at the marae for new volunteers is key. Staying at the marae the night before raising the commitment levels of everybody whilst also sharing ideas was essential. The whanaungatanga and team bonding is also essential.

## **5.6 Waste Management Budgets**

The profile of waste management at events has improved but still has a long way to go. Resource recovery at events is seen as important but with

low status. Budgets allocated to Waste Management for events are not presently realistic to run effective zero waste programs. It is also very difficult to compete with the large companies who charge very little to remove waste, most of which goes to landfill. At present zero waste events must rely on volunteers. The ideal is to increase the status and budgets for Resource Recovery so that there is less reliance on volunteers while jobs are created. This however needs to be balanced as volunteers generally may be more committed than contracted staff. Our focus has been to create an efficient system utilising contracted staff for example to do all the heavy lifting, in order to provide volunteers with as pleasant an experience as possible.

#### 5.7 Marae Worm Farms

This year all organic waste went to 4 worm bins located at Orakei marae (see front page photo). The 2,600kg of organic waste at the time of writing has reduced by approximately 2/3rds.

#### 6.0 SUMMARY

It was evident that many returning to our whenua from last year recognised the kaupapa as there was very little loose litter. They could see the home people cared, the volunteers cared, the stallholders cared and those that came last year cared too. People were also 'packing in and packing out' which put the responsibility of waste generation and management back on them. We set a high standard of behaviour giving our visitors the education and the option to behave in a certain manner which meant most did. This created a clean event with those that came feeling good about the positive contribution they personally made and the event made to the environment. Aucklanders should feel proud of the result as it shows that despite being urban we can achieve results similar and better than many smaller eco-festivals outside of the city.

This year we were awarded a Green Ribbon Award for our efforts at Waitangi Day (<http://www.beehive.govt.nz/release/green+ribbon+award+winners+announced>). This is a fantastic honour and reflects the great efforts of all involved.

To recycle and compost 90% of the waste stream at an open event with over 25,000 people is a major achievement and sets a high standard for all to follow. Kia kaha koutou!

**FOR FURTHER INFORMATION CONTACT;  
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