Case Study
“Zero Waste” Market Day
St Kilda & Balaclava Kindergarten

What?
On Sunday 20 October 2013, St Kilda and Balaclava Kindergarten held its biennial Market Day. This year, the Fundraising and Sustainability Committees set the objective of holding a “Zero Waste” event.

“Zero Waste” was defined as generating no waste sent to landfill. All items used for the Market Day were to be re-homed, re-used, recycled or composted. The objective was also to minimise the amount of “waste” materials generated.

Why?
Sustainability is a big part of the philosophy at St Kilda and Balaclava Kindergarten (SKBK). The kindergarten has actively engaged staff, families and community in education and practise of sustainability for many years.

Through this partnership of staff and families, SKBK has progressively introduced actions in small steps that have improved the way the long day care service operates. Over time, this has lead to a measurable reduction in its environmental footprint.

Since 2008, SKBK has tracked its energy and water use and monitored the resources sent to landfill. It has modified products used and practices to reduce harm on the environment.

The fundraising events have been identified as part of SKBK’s ‘environmental footprint’, whether they occur on-site or elsewhere. The environmental impact of these annual events is not large relative to the operation of the service. However, these events are where SKBK showcases its practices and philosophy to the wider community.

By continuing the practices used in the service and taught to the children at its community events, SKBK demonstrates commitment to its philosophy and a holistic approach to sustainability.

How?
In preparation for the event, at meetings of both the Fundraising Committee and Sustainability Committee, it was discussed how to achieve this “Zero Waste” objective. Many deliberations were had on the activities and materials that could or couldn’t be provided to support the goal.

For example, debate on the inclusion of temporary tattoos ensued due to the items coming in cellophane packaging with waxed paper backing. How could the packaging and remainder be disposed of in a “Zero Waste” event? Do the funds raised and enjoyment provided through this activity offset the compromise of generating waste, which cannot be easily re-used or recycled in available systems?

As Coordinator, Mary McLoughlan provided advice on the overall organisation and operation of the event, and was the arbiter for decisions. Face and skin painting with the use of reusable stencils was the compromise.
In keeping with the Kindergarten’s Sustainability philosophy, Market Day children’s activities were designed for minimal resource use. These included:

- Using wristbands for children’s activities that were sourced through Reverse Art Truck
- Making flags using collected sticks and donated sheets
- Using non-toxic powder paints in face painting
- Weaving with wool on recycled cardboard
- Making ‘flick books’ from recycled paper and sticks, and colouring with pencils
- The ‘Knock’em Down’ ball toss re-using old cans, with donated soft toys for prizes
- The Treasure Hunt for buried glass beads, to win donated soft toys
- Growing tomato, magnolia and rosemary seedlings, struck from seeds by the children, for the plant stall

Other activities included:

- Using compostable recycled paper serviettes, if required, and avoiding the use of plates
- Using donated cardboard as cake bases for the cake stall
- Using recyclable paper cones for ‘snow cones’
- Using ‘Soda Stream’ to make home-made lemonade, with donated lemons. Left over peels were kept and dried for use on the open fire next Winter.

Parents and staff also donated many of the books, adult and children’s’ clothes also toys for sale at the event. Resources for stalls and signage were also made or donated by parents and children. These efforts were organised by the Fundraising Committee. Much of the preparatory work was done in working bees in the weeks leading up to the event, and on the day prior.

Arrangement for bin signage was made with the local Council. Yellow recycling bin tops were delivered to make regular bins appear as recycling bins, and a red bin was provided for soft plastics recycling.

What Happened?

The event included many activities that supported the Zero Waste message. Activities for children generally supported the kindergartens’ sustainability philosophy, e.g. the ‘Pot a Pea’ plant in a biodegradable pot; raffle tickets were made by the kindergarten children on recycled paper; and paper wristbands for children’s activities were supplied from Reverse Art truck and stored for many months for the event.
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Most prominent was the Wash Against Waste stall, in which volunteers washed glasses and mugs from the bar and coffee stall. Glasses and mugs were rinsed, washed, rinsed in clean water, and dried before being transferred back to the stalls. Water was re-used to minimise waste (e.g. dirtied water from washing with biodegradable detergent was re-used as the water to rinse cups before washing, after it had become too cool to effectively wash glasses.) Use of ‘Hughie sinks’ made it easy to transport fresh warm water from the kitchen and dispose of dirtied water on the garden.

The sale of coffees using washable glasses and mugs for a lower price was a very successful method of promoting the message.

Although compostable cups and lids were provided to the stall holder, so that take-away coffees could be purchased without generating non-biodegradable waste, only 3 of these cups were used. Most customers preferred the re-usable glasses and mugs for the cheaper price ($3.00 compared to $3.50). This showed how customers embraced the message.

Many observations were made of attendees thinking about their choice of bin before placing an item in it. Children helped older people to decide which bin to place an item in. The minimal amount of sorting from different bins at the end of the day showed most people had thought about the correct bin in which to place items used. One person was heard to ask: “Where are the normal bins?”

The results recorded from the day show that just over 2 standard 240 litre bins of recycling (490 litres) were generated, weighing an estimated 54 kilograms.

<table>
<thead>
<tr>
<th>Bins</th>
<th>Estimated Volume (litres)</th>
<th>Estimated Weight (kilograms)</th>
<th>Most Common Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240 Litre - front gate</td>
<td>5</td>
<td>2</td>
<td>Cardboard from empty boxes; Paper snowcone cups; Beer stubbies</td>
</tr>
<tr>
<td>240 Litre - bar</td>
<td>240</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>240 Litre - near shed</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>240 Litre - near foyer</td>
<td>240</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>490</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Compost</td>
<td>30 litres</td>
<td>10</td>
<td>Skewers; Corn cobs</td>
</tr>
<tr>
<td>Soft Plastics</td>
<td>30 litres</td>
<td>8</td>
<td>Meat tray wrappers; Cake wrappers;</td>
</tr>
<tr>
<td>Landfill</td>
<td>ZERO!</td>
<td>ZERO!</td>
<td>Not Applicable!</td>
</tr>
</tbody>
</table>

Typically, 2 of these bins are collected each week from the kindergarten, so this represents a week’s worth of recycled material from the event. Cardboard from boxes of donated goods was the most common item, and the bin near the bar was full of drink containers.

Compost was generated from the barbeque area, from corn cobs and organic beef shasliks on skewers. This bin was placed nearby this area.

The soft plastics bin contained a small amount of material and this was largely used by stall volunteers placing wrapping from meat trays and bags from cakes sold.
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Generally, bins required minimal sorting with only a few items placed in the incorrect bin. This was due to the small amount of material other than recyclables generated on the day.

Recycling was put on the street for the regular Tuesday collection by Council. The borrowed yellow bin lids were left on the bins and Council staff notified that this was recyclable material, as usually these are landfill waste bins. The bin lids were returned to Council after the collection.

The compost bin contained skewers, corn cobs and apple cores from fruit sold. Only one skewer of meat that had been dropped on the ground was included. This was later discarded to landfill as the only item of waste from the day, as the community compost bins at the Port Phillip EcoCentre do not allow meat. Paper soiled with grease (used to clean the barbeque) and soggy snow cone wrappers were left in the compost.

The Soft Plastics bin contained a small amount of packaging. Wrapping from meat trays was used to contain grease from cleaning the barbeque. This had to be soaked to remove the grease before it could be placed in the soft plastics recycling bin at Coles supermarket in Balaclava. Ice bags and plastic bags from donations were also recycled through this service.

Items that were donated for the Market Day were sold, further donated or saved for re-use. All children’s clothes were donated to local not-for-profit organisation, St Kilda Mums, for redistribution to families in need.

Unsold men’s and women’s wear was donated to The Revolution Project and Diabetes Australia, who both gratefully received and picked-up the items at the end of the day. The Revolution Project is a social enterprise that helps marginalised young people break out of the cycle of long-term unemployment, create career pathways and begin realising their potential. Young people are employed to sell the donated items in social enterprises like pop-up shops. Revolution Project trainees include young people looking for work whilst facing the daily challenges of being homeless, living in poverty and/or building a new life as a young humanitarian refugee or asylum seeker.

What did you learn?

Most Significant Change?

Making the Message Obvious

A key objective of the event was to ensure visitors could not avoid the “Zero Waste” objective through communications, activities and signage. Promotional signage on the kindergarten front fence and posters used clearly labelled the event as “Zero Waste”. This also meant we had to try very hard to achieve it!

Attractive signage for activities was hand-made re-using materials (e.g. ‘Cake Stall’, ‘Books’). Stall signage specific to the sustainability of activities was designed by the Sustainability Committee. For example, the “Guess how many lollies in the jar” activity had a sign encouraging re-use of olive jars at home; and the activity using steel cans to make stilts had a sign saying the cans were being re-used and would be recycled once they could no longer be used. All signage was written on recycled paper on cardboard using refillable non-toxic markers.
Most importantly, all stall holders on the day were spoken to about where to dispose of any “waste” generated from their stall or activity. They could then communicate the right message to customers at the right time. For example, the coffee seller could offer a washable cup at the lower price, and then tell the customer to take it to the ‘Wash Against Waste’ stall when finished.

Recycling bins were placed prominently at 4 locations on the site. A green bin for compost was used and red bin for soft plastics. Each bin had signage showing what items should be placed in them. The soft plastics bin also had signage saying that this material could be recycled in the red bin at the nearby Coles supermarket. No bins for waste to landfill were provided.

**Issues and Improvements**

**Cake bag** - It was very difficult to source clear compostable packaging for volunteer parents to take home and return with cakes for the cake stall. This packaging can be sourced in Melbourne (from Going Green Solutions) but could only be found in bags too small for most cakes.

The intention was to have cakes bought taken home in compostable packaging, rather than in soft plastic. This sends the “Zero Waste” message to parents, who take the bag home with a bread tie for the bag and label for ingredients in the week prior to the event. It also sends the message to the buyer of the cake. Even if the buyer does not know the bag is biodegradable or compostable, it will break down in landfill. Soft plastic bags have far less chance of being recycled.

**Composting meat** - A Bokashi bucket that readily biodegrades meat, or a dog(!), would have been handy at the end of the day to consume any meat scraps left over from the barbeque. Meat from one skewer that fell on the ground was the only item sent to landfill from the event.

**Meat trays** - Foam meat trays were used to supply the barbeque. The meat was generously provided by a kinder family and comes packaged in this way. Polystyrene foam trays were placed in the recycling after advice from Council’s Waste department that a small amount of this material can be accepted in the system.

However, polystyrene foam cannot be made into another item – though small amounts can be placed in the recycling collection and do not disrupt the system, they cannot be physically recycled into other products.

As such, an improvement would be to use (and re-use) hard plastic trays for meat, with biodegradable plastic cling wrap, or to use reusable sealable containers.

**Soft plastics recycling** - A red soft plastics bin was borrowed from Council for the event and returned after material was recycled at Coles. As convenient would be to arrange getting a soft plastics recycling bin and a pick-up for the day. Combining with several events in the area would minimise collection costs.

**Signage & Monitors** - Sustainability signage worked well but could have been more direct regarding specific items for bins, e.g. ‘Place your used skewers and corn cobs in this green compost bin’.

Another idea we planned but didn’t get time to enact was having people with badges on the day who could answer questions about waste choices, e.g. ‘Don’t know which bin? – Ask me!’
Links to VEYLDF and NQS

This project addresses the following National Quality Standards:

3.3 The Service takes an active role in caring for its environment and contributes to a sustainable future.

3.3.1 Sustainable practices are embedded in service operations.

6.1.2 Families have opportunities to be involved in the service and contribute to service decisions.

6.3 The service collaborates and with other organizations and service providers to enhance children’s learning and wellbeing.

6.3.1 Links with relevant community and support agencies are established and maintained.

6.3.4 The service builds relationships and engages with their local community.

7.2 There is commitment to continuous improvement.

7.2.1 The statement of philosophy is developed and guides all aspects of the service’s operations.

This project addresses the following Victorian Early Years Learning and Development Framework Learning Outcomes:

1.3 Children develop knowledgeable and confident self-identities

2.1 Children develop a sense of belonging to groups and communities and an understanding of the reciprocal rights and responsibilities necessary for active civic participation.

2.5 Children become socially responsible and show respect for the environment

3.2 Children take increasing responsibility for their own health and physical wellbeing

4.4 Children resource their own learning through connecting with people, place, technologies and natural and processed materials

Summary

The objective of “Zero Waste” for the SKBK Market Day was largely achieved through considered planning, communication and efforts of keen volunteers.

Activities on the day made this objective obvious and easy for attendees to participate in. The kindergarten achieved its financial targets from Market Day fundraising without compromising on its sustainability policies and principles.

While there are improvements to be made at future events to further minimise the amount of material generated and make them even more sustainable, this was a very successful first attempt.